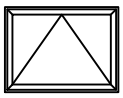
PERFORMANCE

The Series 3325 window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

Project Out Awning (PO)  NAFS / AAMA 101 Test Size 60" x 36" Class: AW Performance Grade: 120 Air Infiltration: <0.02 CFM Water Infiltration Resistance: >12 psf		U_{COG}=0.20 Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Low-E No.4 example: SNX 62/27 or Solarban70 + IS20 or Sungate ThermL	
		NFRC Size [1] 59" x 24" U_{Window}= 0.42 Btu/h-ft²-°f [2]	
		NAFS Size [3] 60" x 36" U_{Window}= 0.36 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
		U_{COG}=0.24 Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Uncoated example: SNX 62/27 or Solarban70	
		NFRC Size [1] 59" x 24" U_{Window}= 0.45 Btu/h-ft²-°f [2]	
		NAFS Size [3] 60" x 36" U_{Window}= 0.40 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
		U_{COG}=0.29 Btu/hr-ft²-°F Double Silver Low-E #2 x 100% Air x Uncoated example: SN-68 or Solarban60	
		NFRC Size [1] 59" x 24" U_{Window}= 0.49 Btu/h-ft²-°f [2]	
		NAFS Size [3] 60" x 36" U_{Window}= 0.44 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
Can be Configured for ADA Compliance ☐ Not-Applicable ☒ Yes		U_{COG}=0.34 Btu/hr-ft²-°F Single Silver Low-E #2 x 100% Air x Uncoated example: ES73 or Energy Advantage (Air, Aluminum Box-Spacer)	
		NFRC Size [1] 59" x 24" U_{Window}= 0.52 Btu/h-ft²-°f [2]	
Can be configured to meet Windborne Debris Impact Resistance to ASTM E1886 / ASTM E1996 ☒ Not Rated ☐ Missile "D" ☐ Missile "E"		NAFS Size [3] 60" x 36" U_{Window}= 0.48 Btu/h-ft²-°f [4]	CRF= - (AAMA 1503) [5]
		U_{COG}=0.47 Btu/hr-ft²-°F Uncoated x 100% Air x Uncoated	
		NFRC Size [1] 59" x 24" U_{Window}= 0.63 Btu/h-ft²-°f [2]	
Product Type may be configured for Blast Resistant Installation ☐ No ☒ Yes [6]		NAFS Size [3] 60" x 36" U_{Window}= 0.59 Btu/h-ft²-°f [4]	CRF= - (AAMA 1503) [5]

This Information is based on current product design, sealed dual glazing, warm edge spacers and testing standards.

Solar Heat Gain Coefficient (SHGC) is not predicted since this is highly variable with Glass Tint & Low-E Coating Product

Please contact WINCO for project specific information

[1] NFRC 101 Test & Rating Size

[2] Based on NFRC 100/200/500 Rating and LBNL Window 7.8 Simulations following NFRC Protocols

[3] AAMA 101 (NAFS) Gateway Test Size

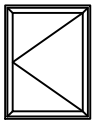
[4] Based on LBNL Window Simulations following NFRC Protocols

[5] AAMA 101 Test Size and AAMA 1503 Test Protocol

[6] Blast Resistant Configuration is highly dependant on Product Size, Blast Design Load(s) and Project Specific Glass, Frame & Connection Response (Required Level of Protection, Allowable Hazard Level)

PERFORMANCE

The Series 3325 window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

Project Out Casement (POC)  NAFS / AAMA 101 Test Size 36" x 60" Class: AW Performance Grade: 120 Air Infiltration: <0.02 CFM Water Infiltration Resistance: >12 psf		U_{COG}=0.20 Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Low-E No.4 example: SNX 62/27 or Solarban70 + IS20 or Sungate ThermL	
		NFRC Size [1] 24" x 59" U_{Window}= 0.42 Btu/h-ft²-°f [2]	
		NAFS Size [3] 36" x 60" U_{Window}= 0.36 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
		U_{COG}=0.24 Btu/hr-ft²-°F Tripple Silver Low-E #2 x 90% Argon x Uncoated example: SNX 62/27 or Solarban70 on No.2 surface	
		NFRC Size [1] 24" x 59" U_{Window}= 0.45 Btu/h-ft²-°f [2]	
		NAFS Size [3] 36" x 60" U_{Window}= 0.40 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
		U_{COG}=0.29 Btu/hr-ft²-°F Double Silver Low-E #2 x 100% Air x Uncoated example: SN-68 or Solarban60 on No.2 surface	
		NFRC Size [1] 24" x 59" U_{Window}= 0.49 Btu/h-ft²-°f [2]	
		NAFS Size [3] 36" x 60" U_{Window}= 0.44 Btu/h-ft²-°f [4]	CRF= 63 (AAMA 1503) [5]
Can be Configured for ADA Compliance ☐ Not-Applicable ☒ Yes			
		U_{COG}=0.34 Btu/hr-ft²-°F Single Silver Low-E #2 x 100% Air x Uncoated example: ES73 or Energy Advantage on No.2 surface (100% Air, AL Box-Spacer)	
		NFRC Size [1] 24" x 59" U_{Window}= 0.52 Btu/h-ft²-°f [2]	
		NAFS Size [3] 36" x 60" U_{Window}= 0.48 Btu/h-ft²-°f [4]	CRF= - (AAMA 1503) [5]
Can be configured to meet Windborne Debris Impact Resistance to ASTM E1886 / ASTM E1996 ☒ Not Rated ☐ Missile "D" ☐ Missile "E"			
		U_{COG}=0.47 Btu/hr-ft²-°F Uncoated x 100% Air x Uncoated	
		NFRC Size [1] 24" x 59" U_{Window}= 0.63 Btu/h-ft²-°f [2]	
		NAFS Size [3] 36" x 60" U_{Window}= 0.59 Btu/h-ft²-°f [4]	CRF= - (AAMA 1503) [5]
Product Type may be configured for Blast Resistant Installation ☐ No ☒ Yes [6]			

This Information is based on current product design, sealed dual glazing, warm edge spacers and testing standards.

Solar Heat Gain Coefficient (SHGC) is not predicted since this is highly variable with Glass Tint & Low-E Coating Product

Please contact WINCO for project specific information

[1] NFRC 101 Test & Rating Size

[2] Based on NFRC 100/200/500 Rating and LBNL Window 7.8 Simulations following NFRC Protocols

[3] AAMA 101 (NAFS) Gateway Test Size

[4] Based on LBNL Window Simulations following NFRC Protocols

[5] AAMA 101 Test Size and AAMA 1503 Test Protocol

[6] Blast Resistant Configuration is highly dependant on Product Size, Blast Design Load(s) and Project Specific Glass, Frame & Connection Response (Required Level of Protection, Allowable Hazard Level)

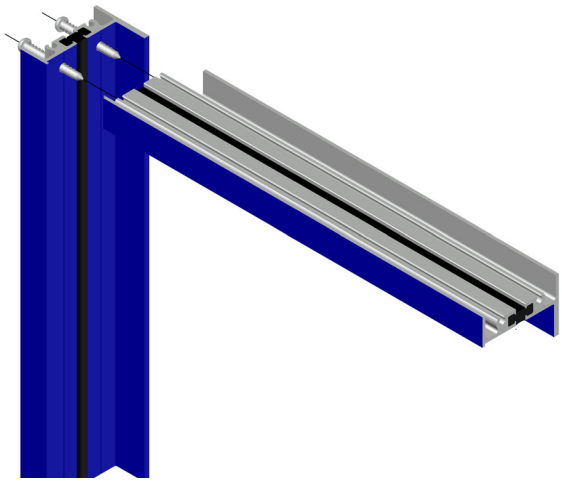
CONSTRUCTION

MATERIAL - The Series 3325 window is a 3-1/4" deep frame depth with a nominal wall thickness of .125 inch. All material is extruded from 6063-T6 alloy.

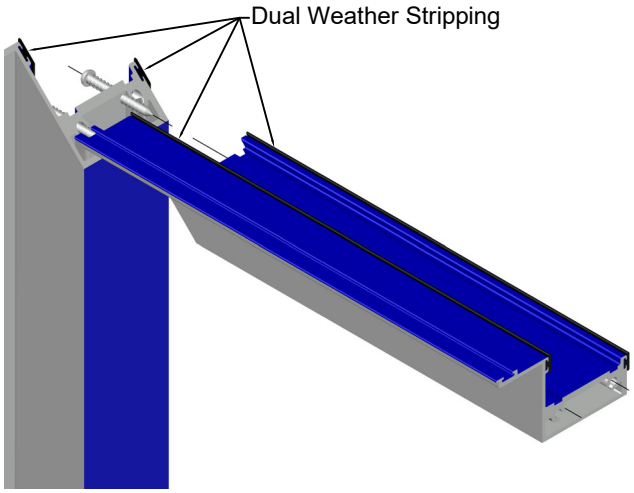
THERMAL BREAK - All framing members of the window system are thermally broken. Winco uses the Azon Azo Brader® process to mechanically condition the surface of the thermal cavity. The process runs the entire length of the extrusion and creates serrations that ensure proper adhesion of the structural polymer. The structural urethane is a high density 2 part formula providing optimum thermal performance for the most demanding conditions. The combination of the conditioning of the aluminum surface along with the two part urethane allows Winco to provide a full 10 year warranty against thermal break creep and shrinkage in accordance with AAMA 505-17.

WEATHER-STRIP - All operating ventilators have a double Santoprene®, non-shrinking dual durometer, thermoplastic rubber weather-stripping around the perimeter. One interior and one exterior.

FABRICATION - The main frame corners are coped and mechanically joined using two stainless steel spline screws per corner (fig 1). The vent is a hollow tube shaped extrusion for superior strength and rigidity. Vent corners are fully mitered and mechanically joined using two stainless steel spline screws per corner, aligning the members to form a hairline joint (fig 2). All frame joints are back sealed with small joint seam sealer providing a water tight joinery.



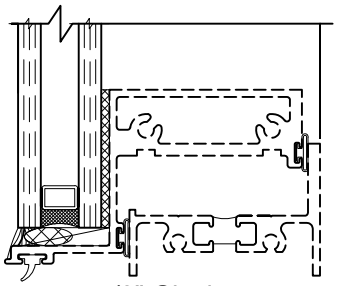
(fig 1) Main Frame Construction



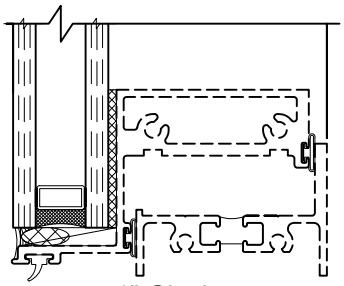
(fig 2) Vent Construction

GLAZING

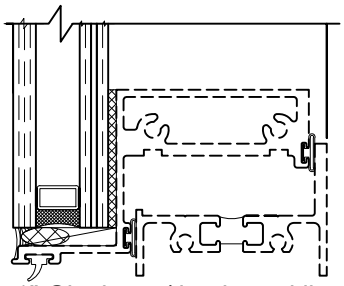
The windows is structurally glazed from the building exterior without glazing beads accommodating Insulated Glass Unit (I.G.U.) thickness ranging from 7/8" nominal 1" nominal.



7/8" Glazing
(No Bead used)



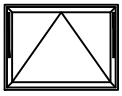
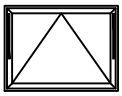
1" Glazing
(No Bead used)



1" Glazing w/ laminated lite
(No Bead used)

HARDWARE - Awning Configurations

All exposed locking hardware, strikes and keepers are solid white bronze alloy with US25D brushed finish. All four bar arms, casement arms, friction arms and key release limit arms are stainless steel conforming to AAMA 904.1.

	Project Out Awning (PO) w/ Default Hardware Kit Stainless Steel 4-Bar Hinges PO Cam Lock(s) [1]	<u>Optional Hardware Accessories:</u> Additional Jamb Mounted Lift Locks Access Control Cam Locks Additional Access Control Jamb Mounted Lift Locks Pole Ring Cam Lock(s) [1] Pole Ring Additional Pole Ring Lift Locks Non-Removable Limit Stop Key-Release Limit Stop Under-Screen Push bar [2,3]
	Project Out Awning (PO) w/ Roto Operator Stainless Steel 4-Bar Hinge Jamb Mounted Lift Locks Pivot Shoe Roto Operator	<u>Optional Hardware Accessories:</u> Pole Ring Lift Lock Non-Removable Limit Stop

Please contact WINCO for project specific information

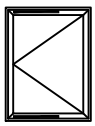
[1] Lock Quantity is dependent on Operable Vent Width & Height, Additional Locks can be specified, but minimum Qty is determined by WINCO Engineering

[2] Under Screen Push Bar is subject to minimum Vent Width

[3] Under Screen Push Bars are not recommended by WINCO if Optimum Water Penetration or Air Infiltration Performance is required

HARDWARE - Casement Configurations

All exposed locking hardware, strikes and keepers are solid white bronze alloy with US25D brushed finish. All four bar arms, casement arms, friction arms and key release limit arms are stainless steel conforming to AAMA 904.1. Five knuckle butt hinges are fabricated of 6063-T6 aluminum with nylon bushings and a stainless steel hinge pin.



Project Out Casement (POC)
w/ Concealed Hinges

Stainless Steel 4-Bar Casement Hinges
Single Point or Multi-Point Lift Lock(s) [1]

Optional Hardware Accessories:
Casement Roto Operator [4]
Access Control Lift Locks
Pole Ring Lift Lock(s) [1]
Pole Ring
Non-Removable Limit Stop
Key-Release Limit Stop

Please contact WINCO for project specific information

[1] Lock Quantity is dependent on Operable Vent Width & Height, Additional Locks can be specified, but minimum Qty is determined by WINCO Engineering

[2] Under Screen Push Bar is subject to minimum Vent Width

[3] Under Screen Push Bars are not recommended by WINCO if Optimum Water Penetration or Air Infiltration Performance is required

[4] Combination of Casement Roto Operator and Concealed Hinges requires minimum Operable Vent Width to accommodate Hardware

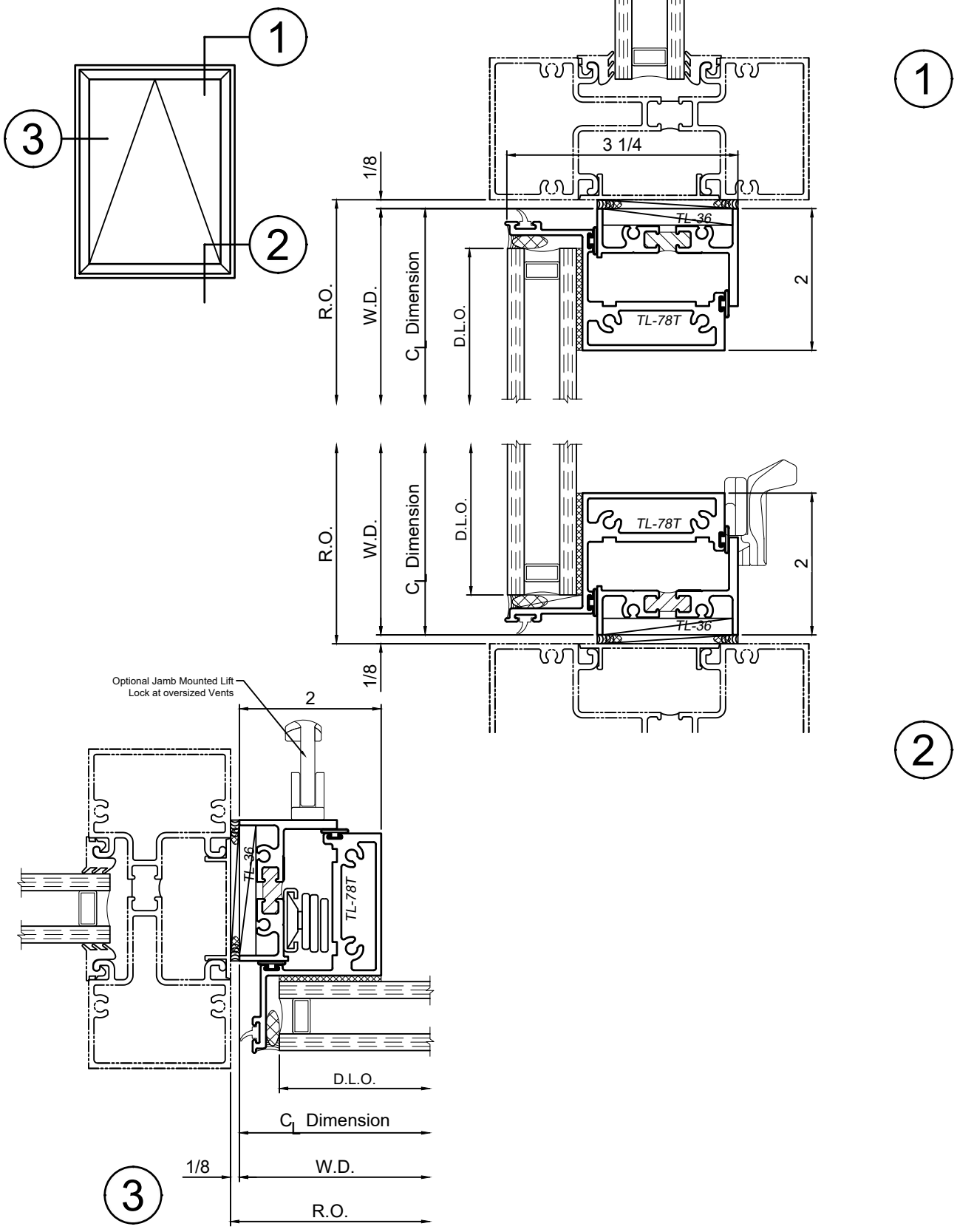
SCREENS

FRAME - frames are fabricated from 6063-T6 extruded aluminum alloy and temper. All screen frames are miter cut and corner keyed. The corners are mechanically crimped together for durability. The screen frame is finished to match the window frame.

MESH - Standard 0.011" aluminum screen wire mesh is produced from 5154 alloy with 18x16 pattern in Charcoal or Aluminum color. All mesh is applied to the screen frame with a roller spline making for easy and quick replacements. Optional fiberglass or 0.009" stainless steel mesh is available as an option.

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Storefront - PO Awning

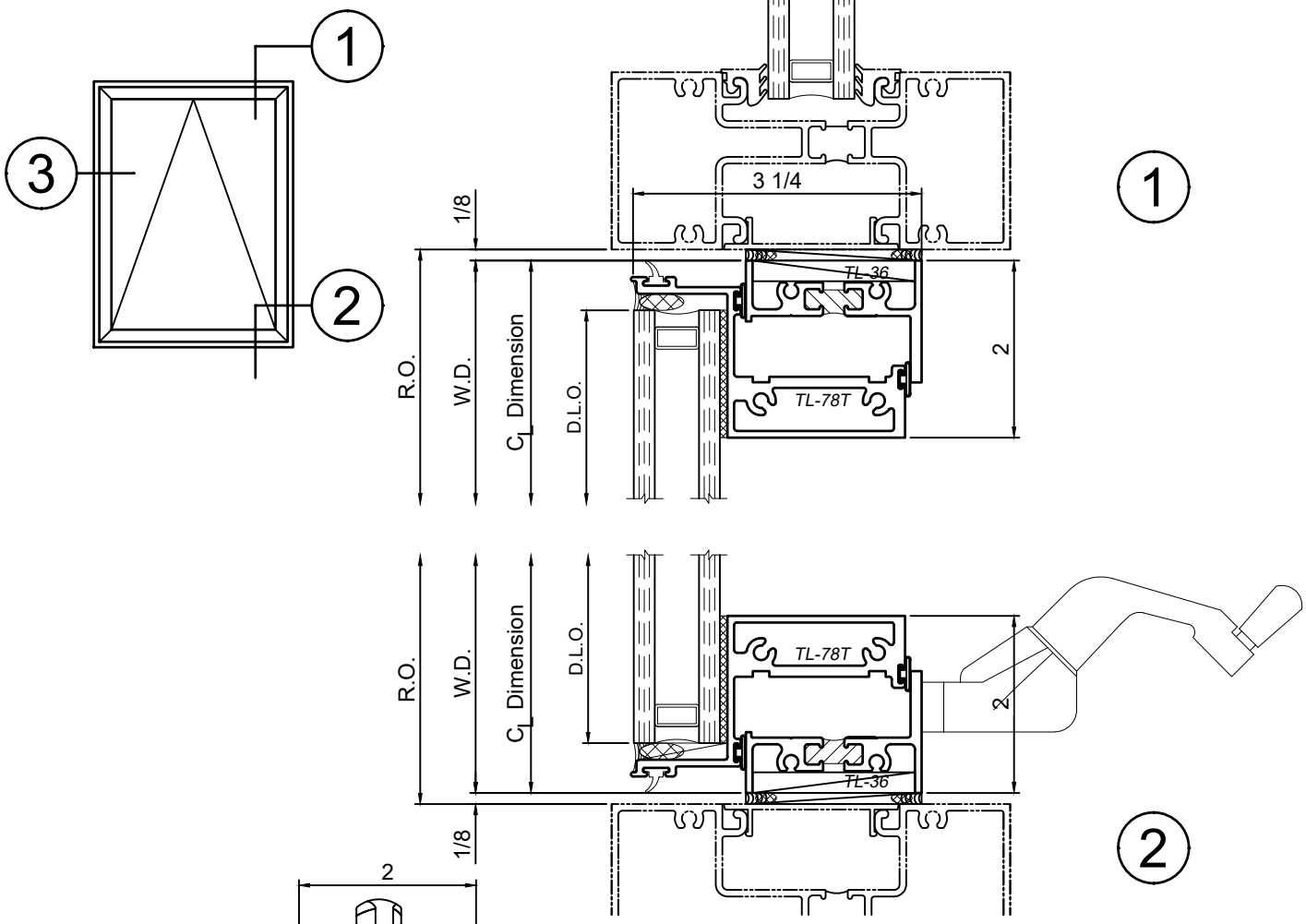
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

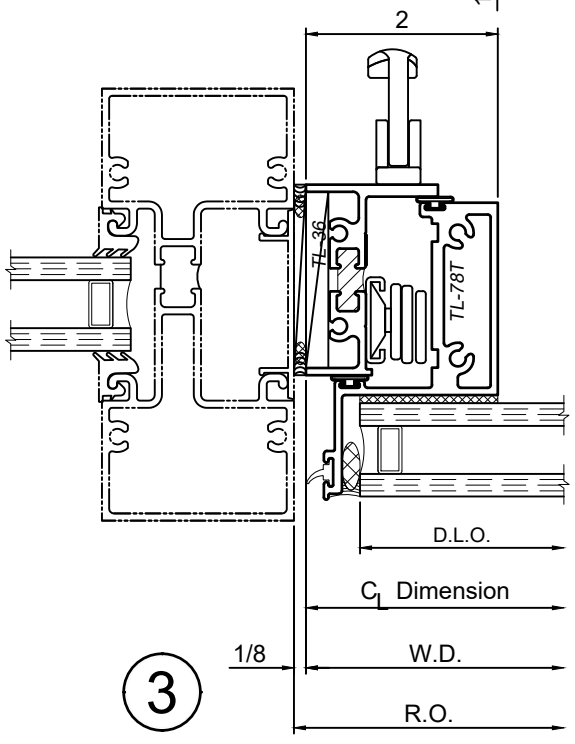


SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Storefront - PO Awning w/ Roto Operator

Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

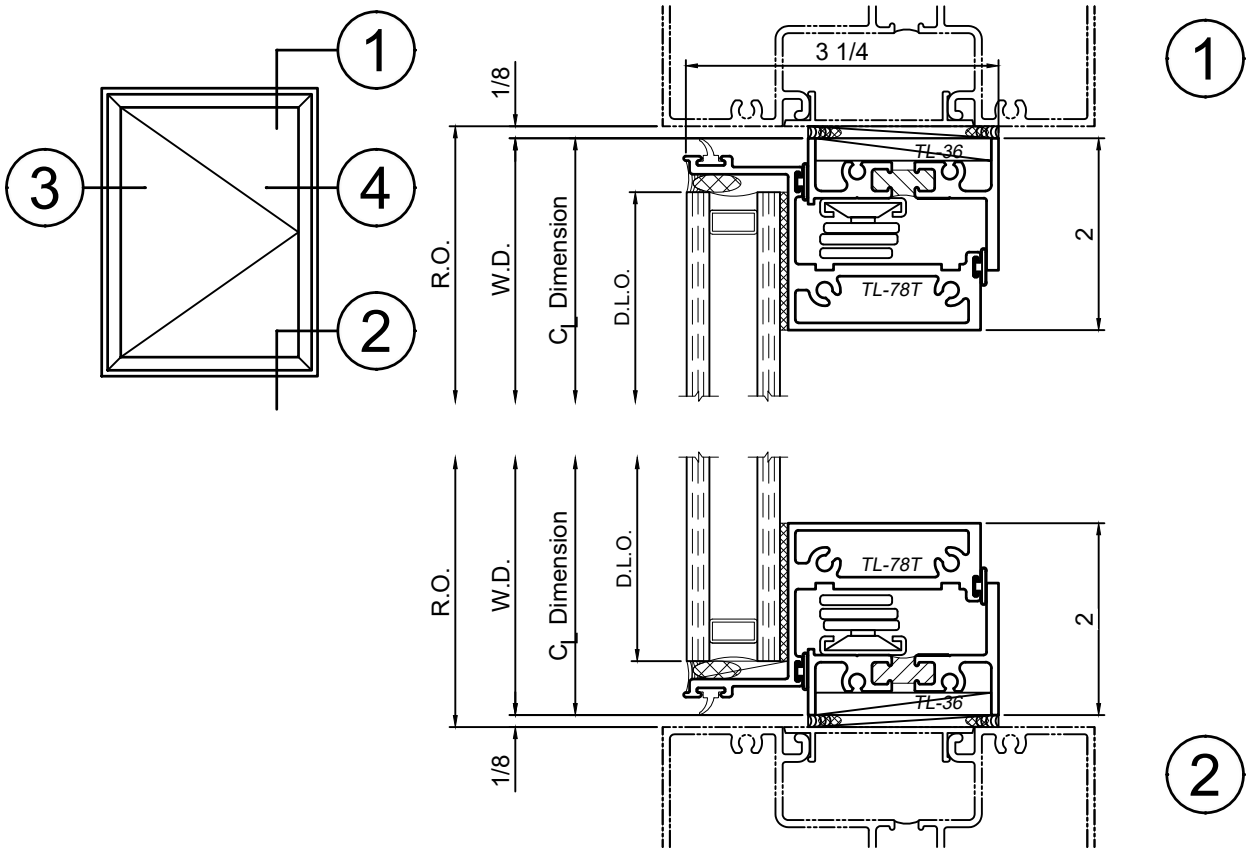


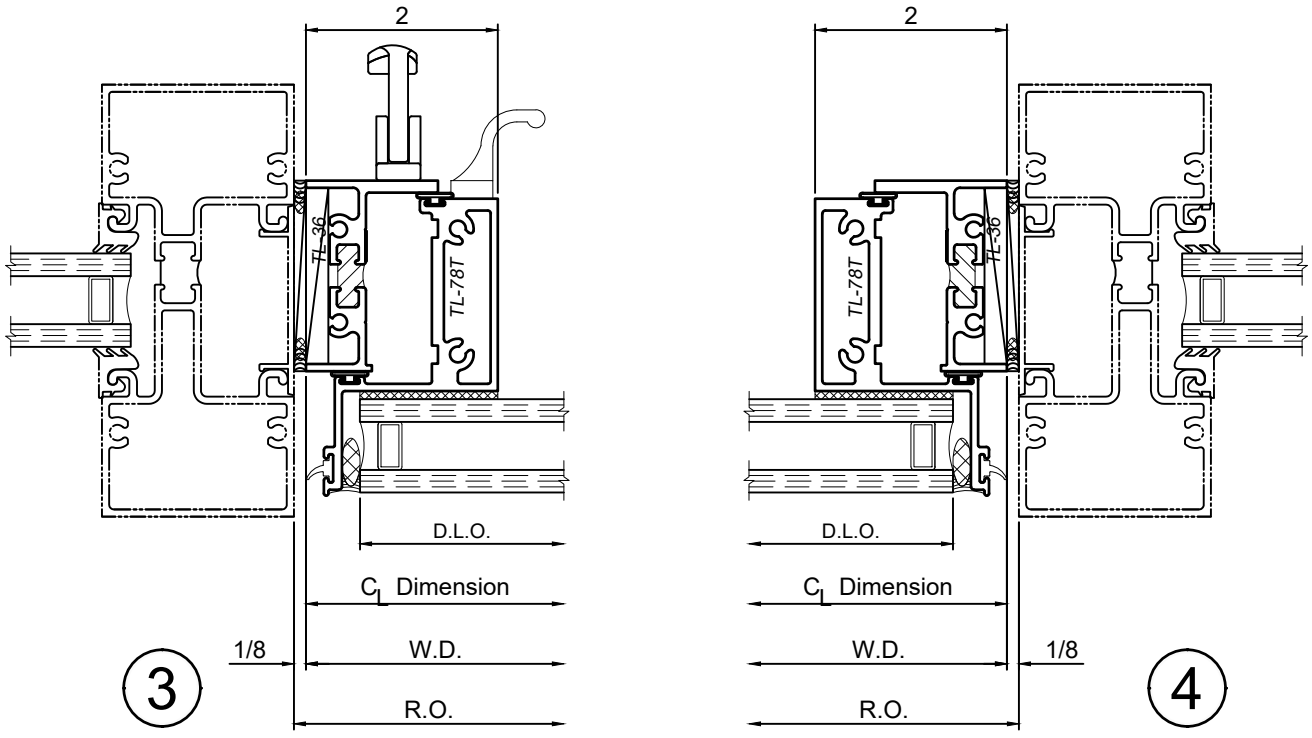


SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Storefront - Outswing Casement

Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

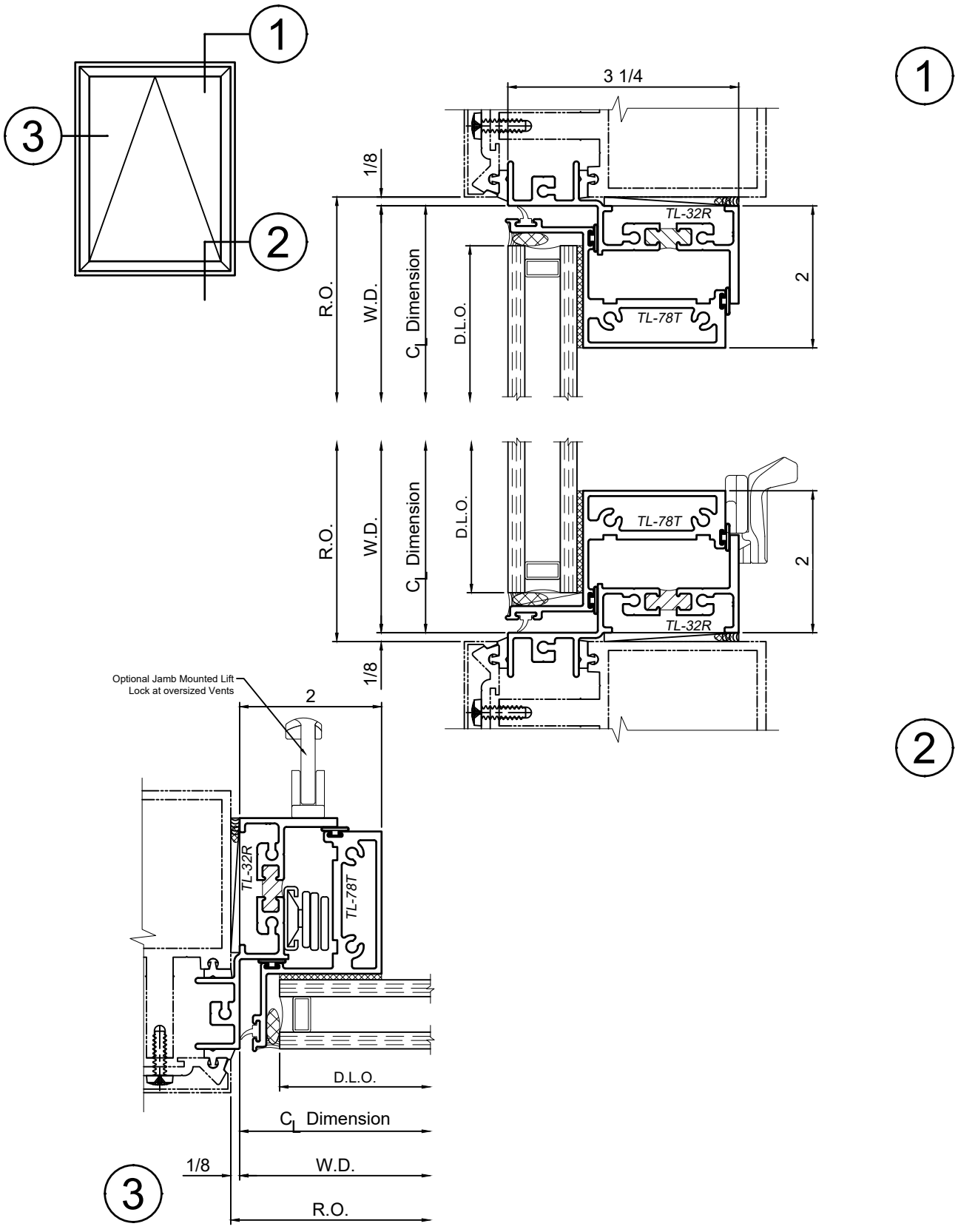




SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Curtain Wall - PO Awning

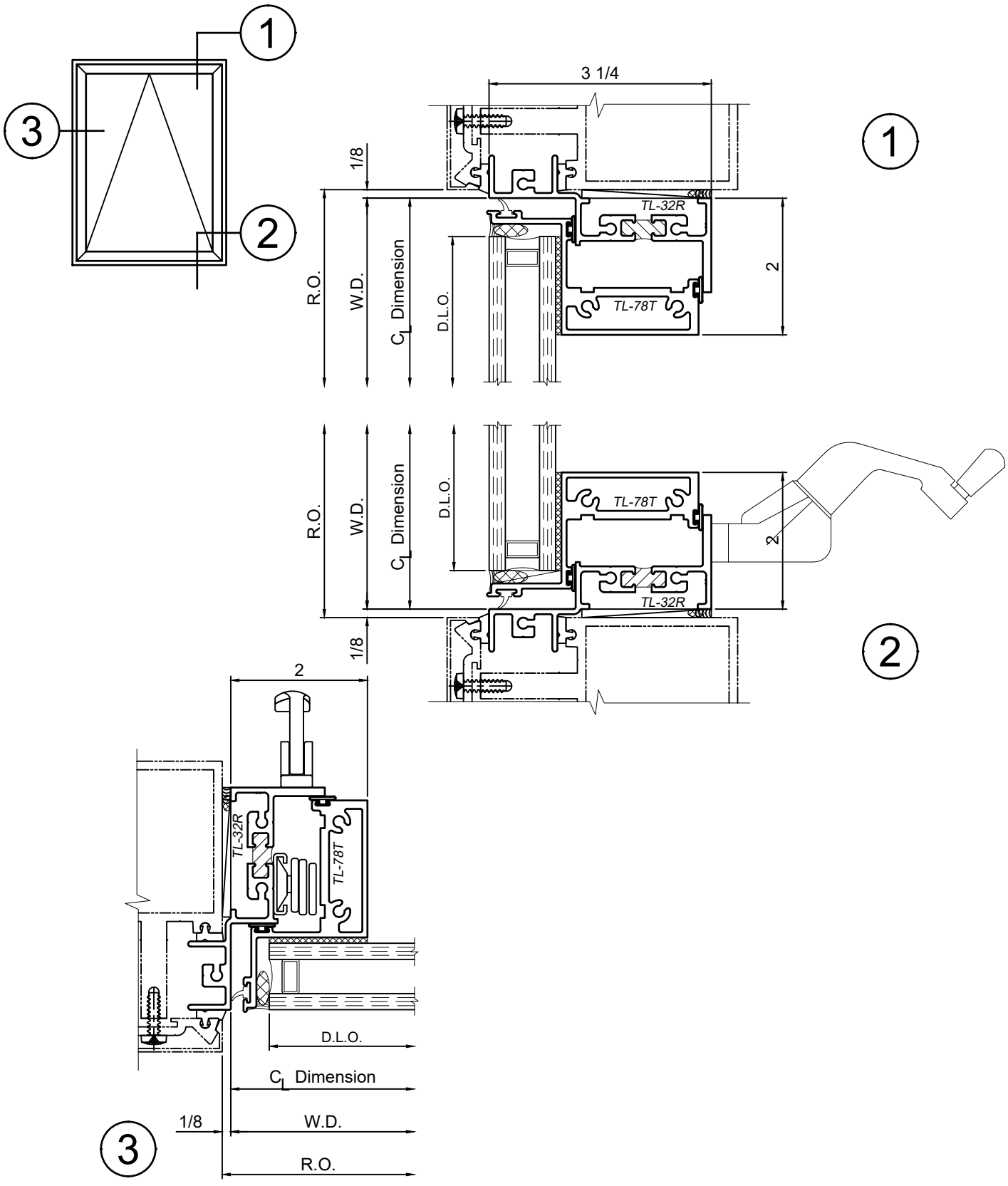
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.



SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Curtain Wall - PO Awning w/ Roto Operator

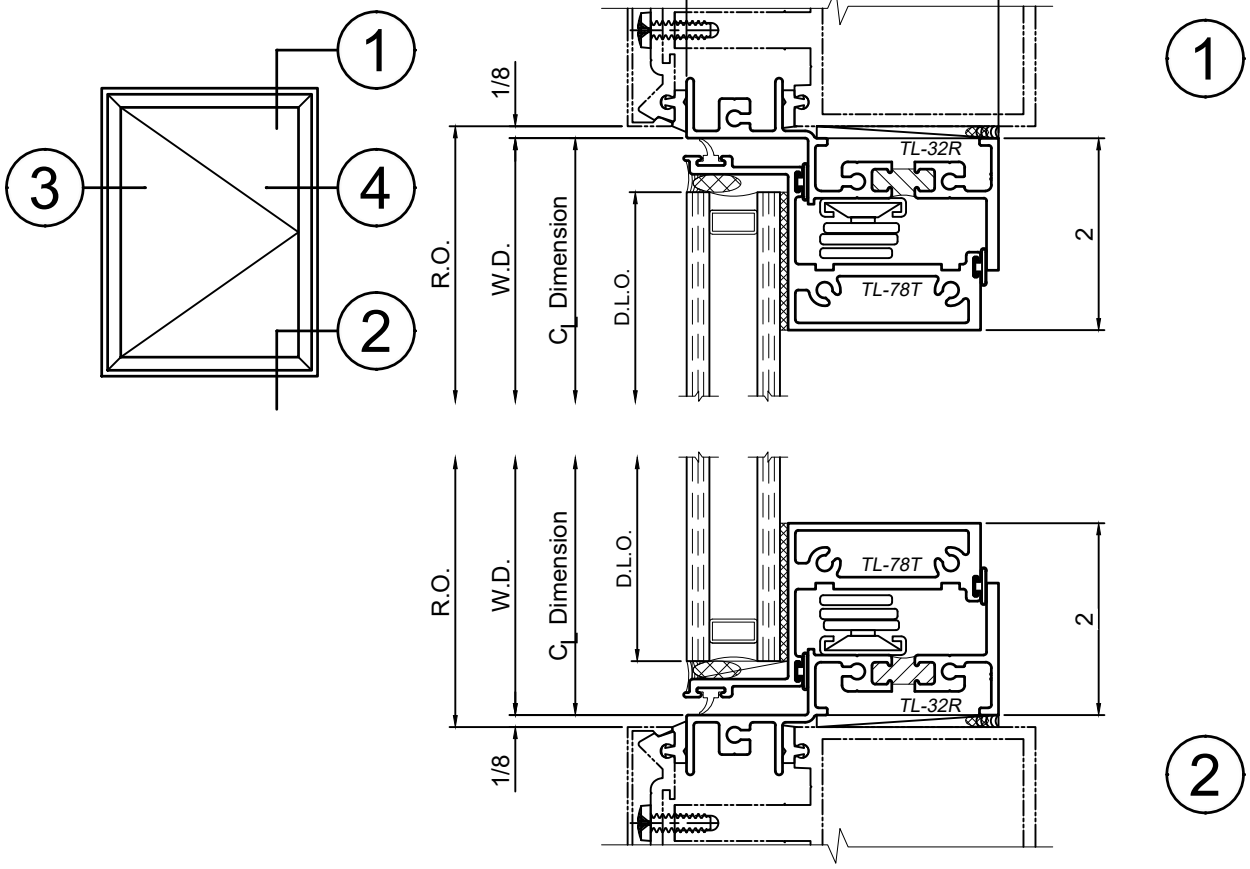
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

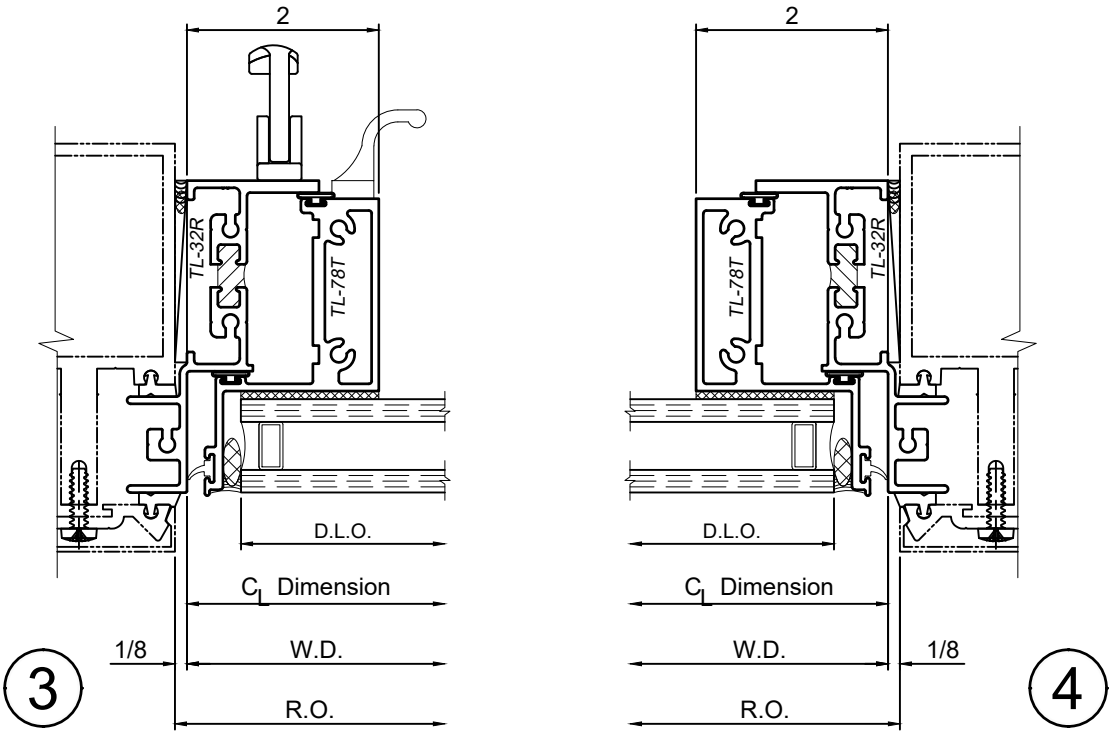


SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Curtain Wall - Outswing Casement

Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

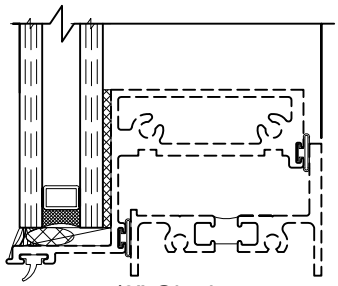




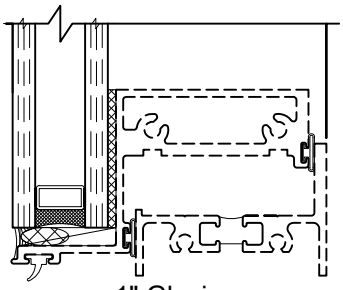
SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Glazing Options

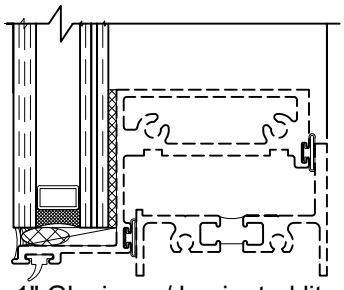
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.



7/8" Glazing
(No Bead used)



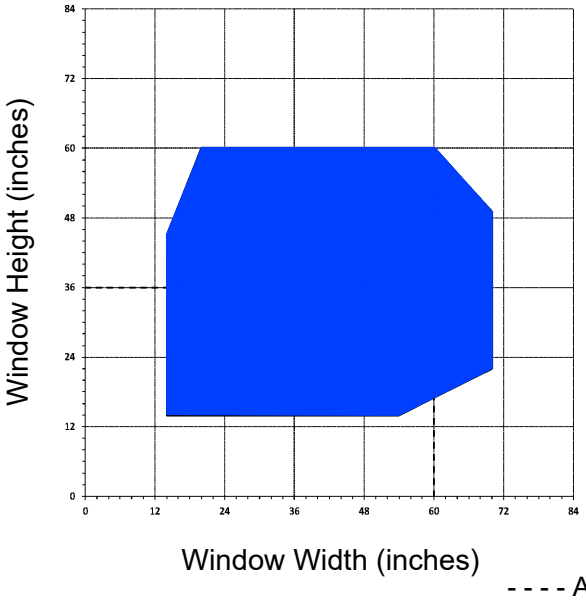
1" Glazing
(No Bead used)



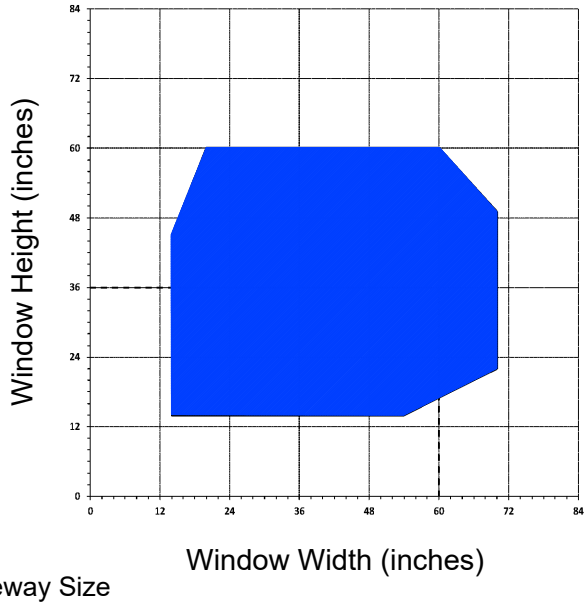
1" Glazing w/ laminated lite
(No Bead used)

SCALE 6"=1'-0"

Projected Out with Four Bar Arms

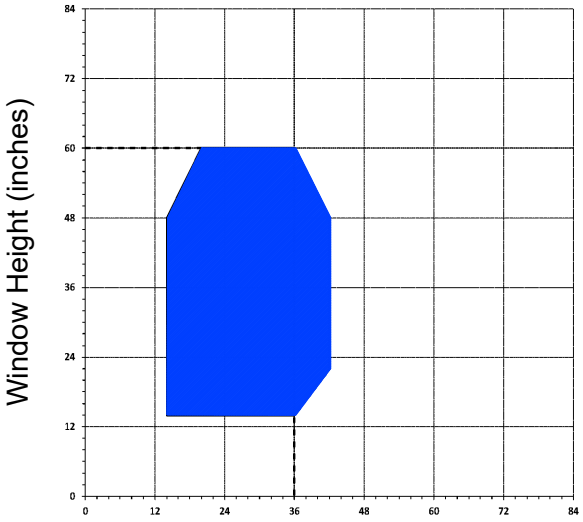


Projected Out with Pivot Shoe Roto-Operator



- - - - AAMA Gateway Size

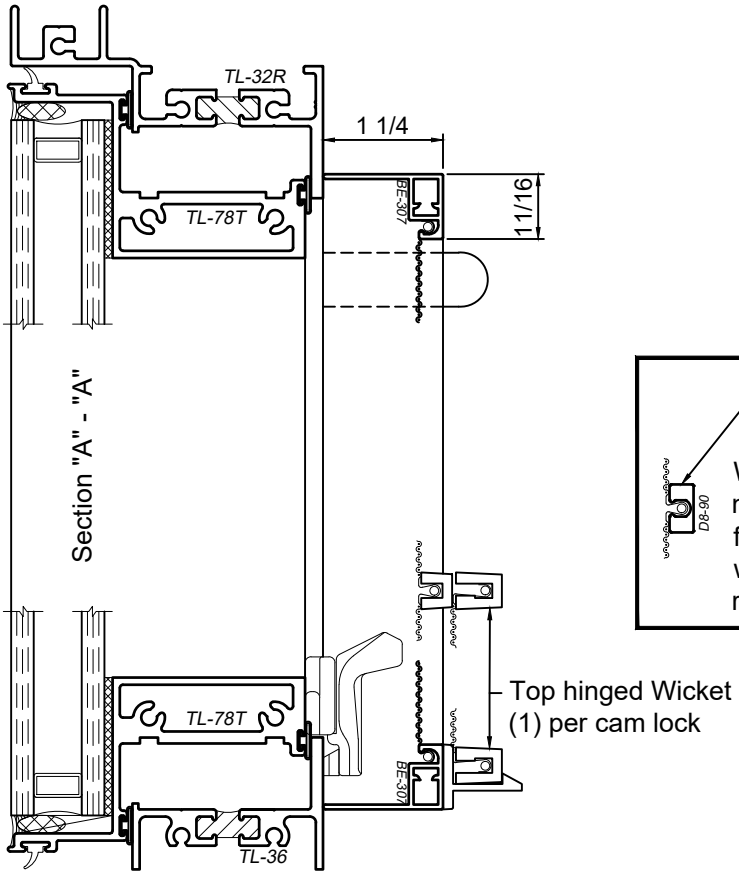
Casement with Concealed Four Bar Casement Arm & Multi Point Locks



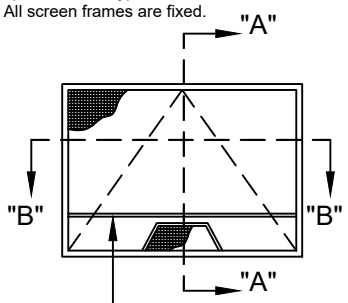
- Dashed line represents the gateway size window as tested by AAMA.
- All vent sizes are based upon 1" Insulated glass consisting of ¼" glass -½" air -¼" glass.
- Any vent size outside of the AAMA Gateway tested size may have reduced performance.
- Chart assumes the window has been installed in a properly prepared opening by a qualified installer.
- Individual job criteria such as: other glazing materials, specified wind load, and specific operating hardware; may enhance or restrict the chart.
- Minimum vent size is 14" x 14" with standard cam locks and 4-bar hinges.
- The chart is a general guideline for projected vent sizing, anything on the edge or outside of the range will need to be reviewed by Winco Engineering.

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Screen Options - PO - Awning

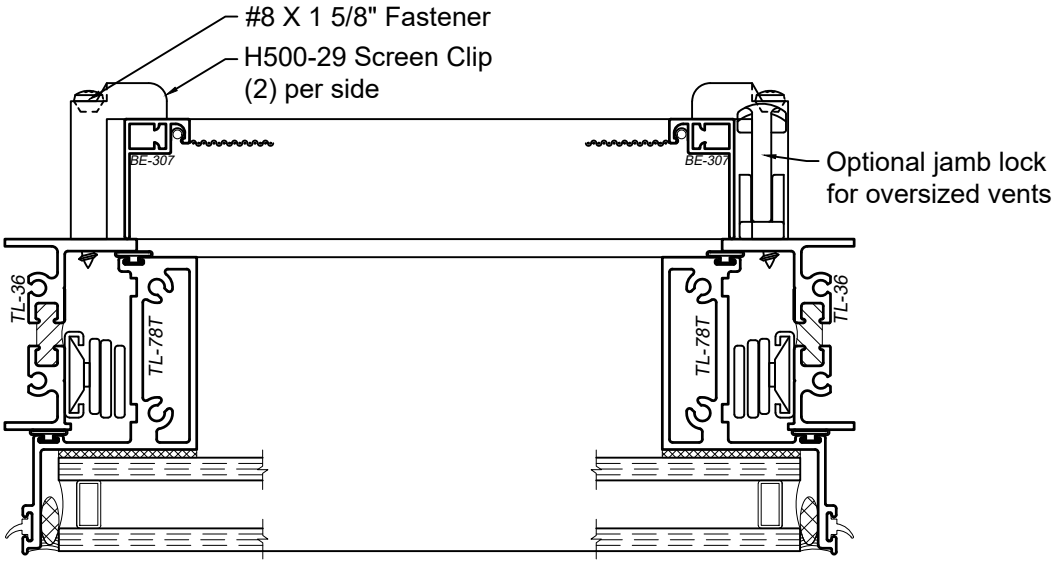
Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.



Note: Dashed lines on screen elevations depict operable sash type.
All screen frames are fixed.



Winco reserves the right to add the D8-90 muntin bar to any aluminum mesh screen for wicket support if the vent becomes too wide. All Fiberglass screen mesh will receive the support rail regardless of width.

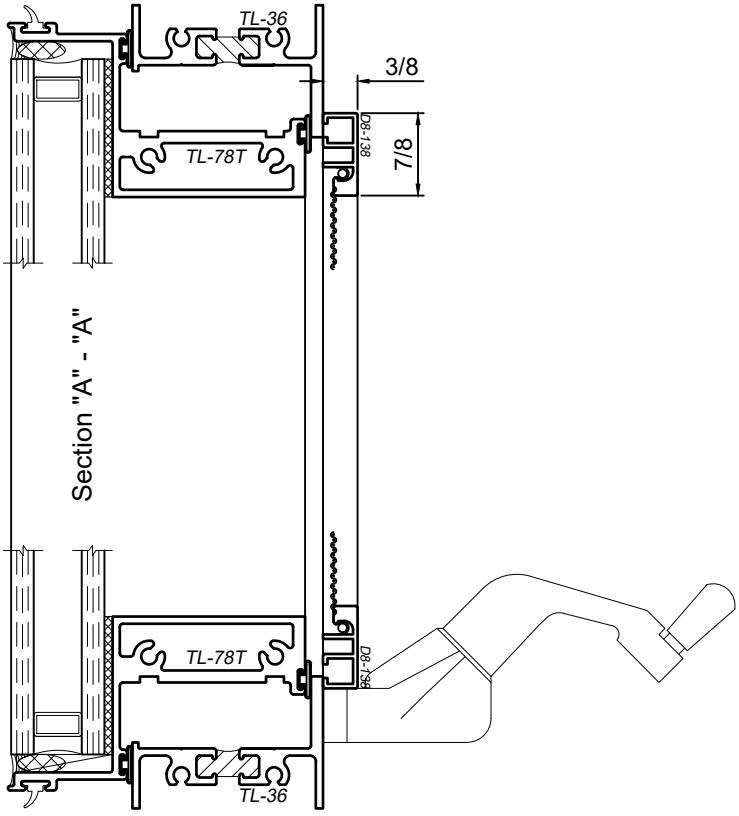


Section "B" - "B"

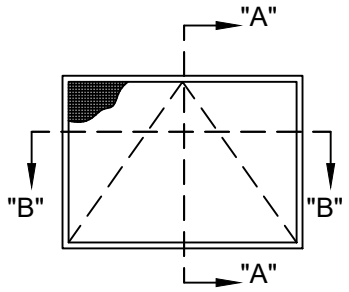
SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Screen Options - PO - Awning w/ Roto Operator

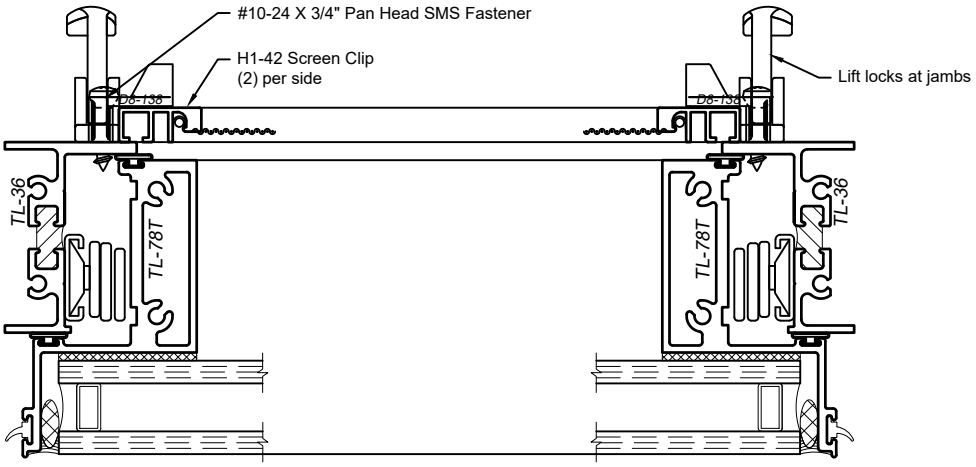
Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.



Section "A" - "A"



Note: Dashed lines on screen elevations depict operable sash type.
All screen frames are fixed

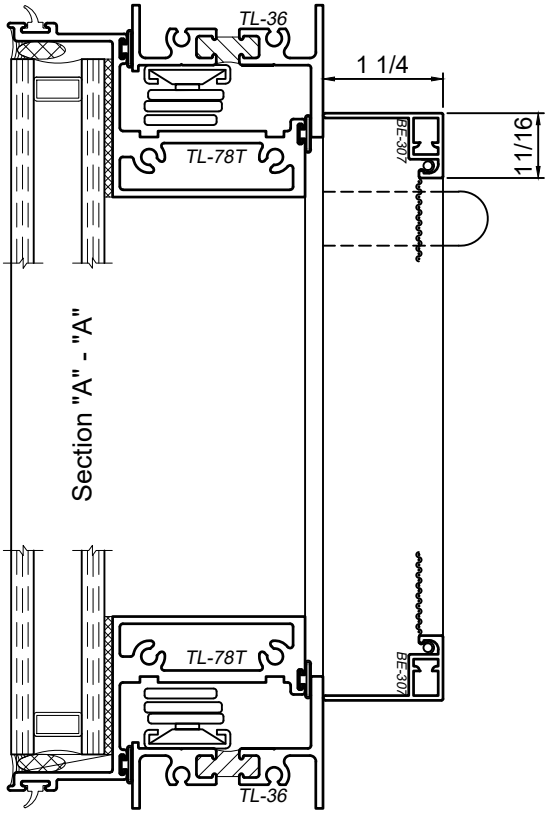


Section "B" - "B"

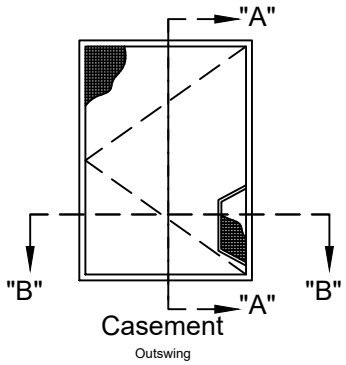
SCALE 6"=1'-0"

3325 Series 3-1/4" Thermal Casement & Projected Windows
Product Details - Screen Options - Outswing Casement

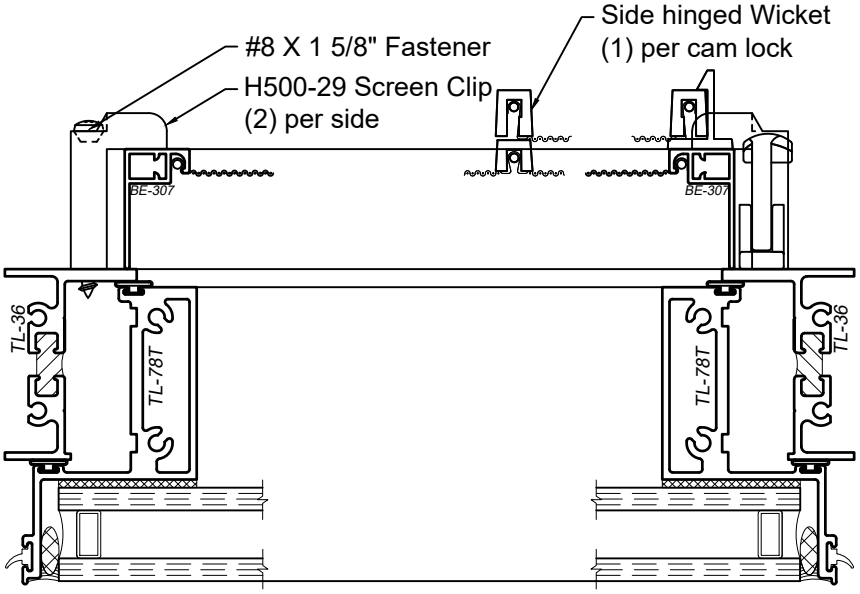
Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.



Section "A" - "A"



Note: Dashed lines on screen elevations depict operable sash type. All screen frames are fixed



Section "B" - "B"

SCALE 6"=1'-0"