

1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Information



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PERFORMANCE

The Series 1450S window is a thermally broken mainframe and sash that exceeds the performance specification criteria as required by ANSI/AAMA for AW (Architectural Grade) windows.

Fixed			Project Out - Awning		
AAMA Rating	AW-120		AAMA Rating	AW-120	
Air Infiltration	0.0 CFM/ft ²		Air Infiltration	0.02 CFM/ft ²	
Water	Over 12 psf		Water	Over 12 psf	
Structural	180 psf		Structural	180 psf	
CRF (AAMA 1503)	not tested		CRF (AAMA 1503)	not tested	
Center of Glass U-Value	Window U-Factor ³		Center of Glass U-Value	Window U-Factor ³	
BTU/Ft ² x F° x Hr	47" x 59" ²	60" x 99" ¹	BTU/Ft ² x F° x Hr	59" x 24" ²	60" x 36" ¹
	0.20	0.29		0.50	0.43
	0.24	0.33		0.52	0.45
	0.29	0.37		0.55	0.49
	0.34	0.41		0.57	0.52
	0.47	0.52		0.65	0.60

Project In - Hopper			Casement		
AAMA Rating	AW-120		AAMA Rating	AW-120	
Air Infiltration	0.08 CFM/ft ²		Air Infiltration	0.1 CFM/ft ²	
Water	Over 12 psf		Water	Over 12 psf	
Structural	180 psf		Structural	180 psf	
CRF (AAMA 1503)	not tested		CRF (AAMA 1503)	not tested	
Center of Glass U-Value	Window U-Factor ³		Center of Glass U-Value	Window U-Factor ³	
BTU/Ft ² x F° x Hr	59" x 24" ²	60" x 36" ¹	BTU/Ft ² x F° x Hr	24" x 59" ²	36" x 60" ¹
	0.20	0.43		0.50	0.43
	0.24	0.45		0.52	0.45
	0.29	0.49		0.55	0.49
	0.34	0.52		0.57	0.52
	0.47	0.60		0.65	0.60

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

Please contact WINCO for project specific information

¹ AAMA 101 Test Size

² NFRC Gateway Test Size

³ Based on NFRC 100

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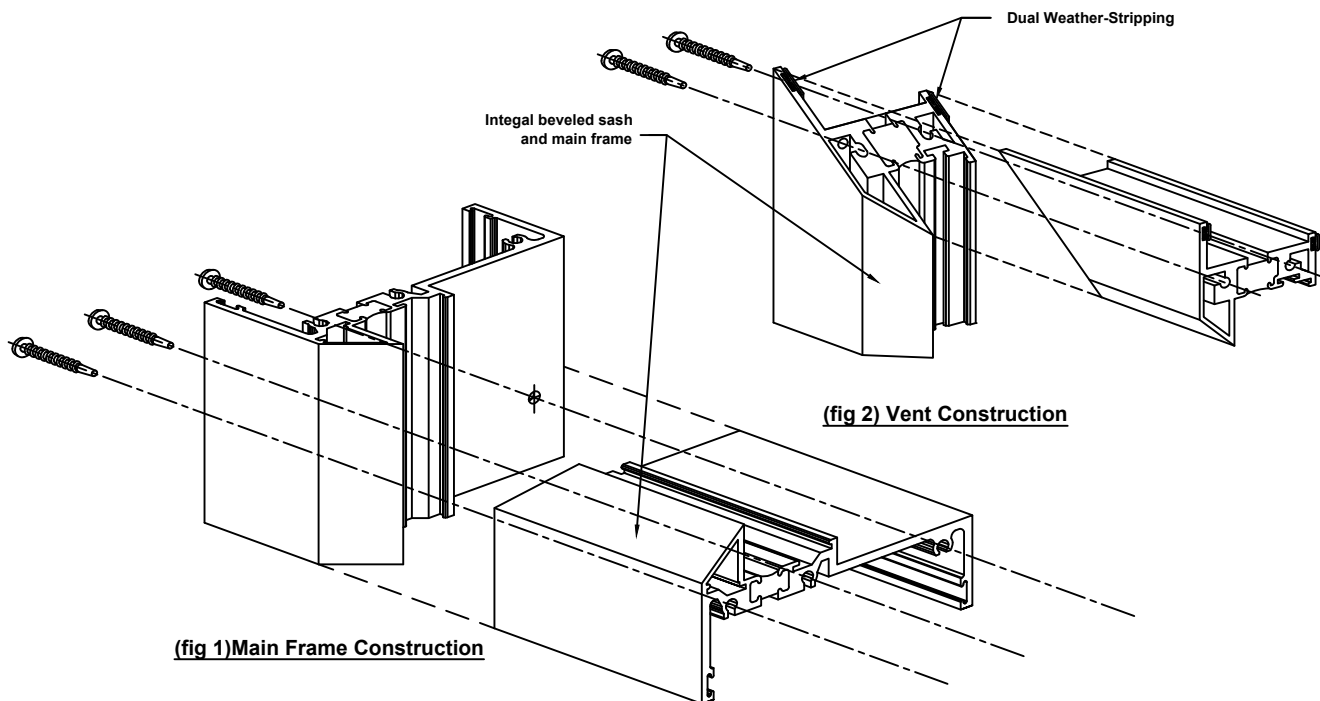
CONSTRUCTION

MATERIAL - The Series 1450S window is a 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 insure 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 505-98.

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 three 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.



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GLAZING

The windows can be interior or exterior glazed with .050 thick extruded aluminum glazing beads accommodating thicknesses from 1/8" up to 1". Dual glazing is an option utilizing an interior panel sash that can either be hinged with 4-bar stainless steel hinges or a more economical take out sash. Venetian blinds are available with the dual glazed window options. See the quick reference chart below for all glazing options. For actual details refer to the glazing section in the back of the 1450S section for optional glazing and blind details.

Glazing Thickness		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1-1/4"	1-3/8"	1-1/2"
Monolithic		X	X	X	-	-	X	X	-	-	-	-	-	-	-
Insulated		-	-	-	-	-	-	-	-	X	X	X	-	-	-
Dual Glazed	Exterior	-	X	X	-	-	-	-	-	-	-	-	-	-	-
	Interior	X	X	X	-	-	-	-	-	-	-	-	-	-	-
Triple Glazed	Exterior	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Interior	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Winco has different gaskets and glazing methods that can accommodate odd thicknesses of glass. If you do not see what you are looking for within this chart please contact your local representative for information regarding your specific project needs.

HARDWARE

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.

Window Type	Butt Hinge	4-Bar Arms	Casement Arms	Friction Adjustable	Roto Operator	Cam Lock	Pole Ring Cam Lock	Access Control Lock	Lift Lock	Pole Ring Lift Lock	Pull Handle	Key Release Limit Arm	Fixed Limit Stop	Under Screen Push Bar
PO - Awning	-	X	-	-	O ²	X	O ³	O	O ²	O ²	O	O	O	O ⁵
PI - Hopper	-	X	-	-	-	X	O	O	O	O	-	O	O	-
Casement - Outswing w/ Butt Hinges	X	-	O	X	O ²	O	O ³	O	X	O	X	O	O	O ⁵
Casement - Inswing w/ Butt Hinges	X	-	O	X	-	O	O	O	X	O	-	O	O	-
Casement - Outswing w/ concealed Hinges	-	-	X	-	O ^{2,4}	O	O ³	O	O	O	X	O	O	O ^{2,5}
Casement - Inswing w/ concealed Hinges	-	-	X	-	-	O	O	O	X	O	-	O	O	-

X = Standard Hardware

O = Optional Hardware

Note:

- ¹ Not all hardware is compatible with each other, contact your local Winco representative for information
- ² Size limitations exist on some hardware, contact your local Winco representative for information
- ³ A pole ring pull will be provided on a project out vent is optional pole ring cam locks are required and no screen is furnished
- ⁴ Minimum width requirement for optional roto operators on casement windows with concealed casement arm hinging
- ⁵ Under screen push bars are not recommended by Winco if optimum water performance is a requirement

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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 .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 .009 stainless steel mesh is available as an option.

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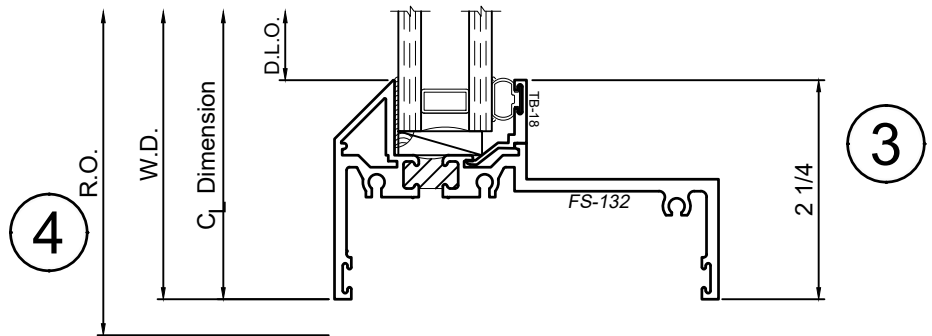
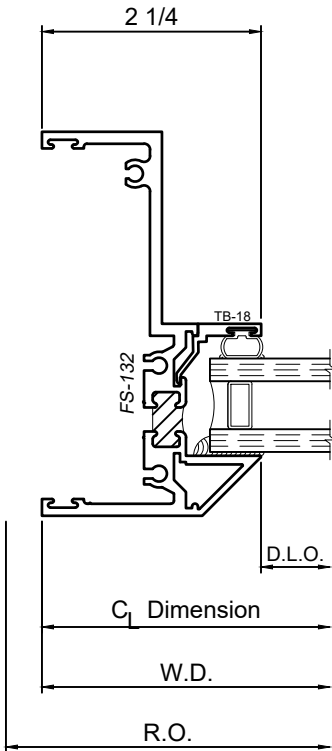
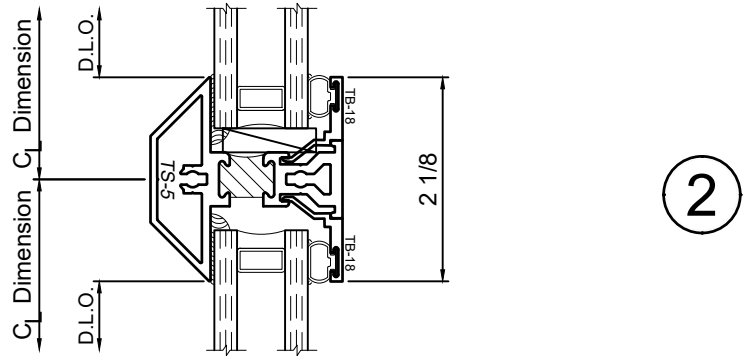
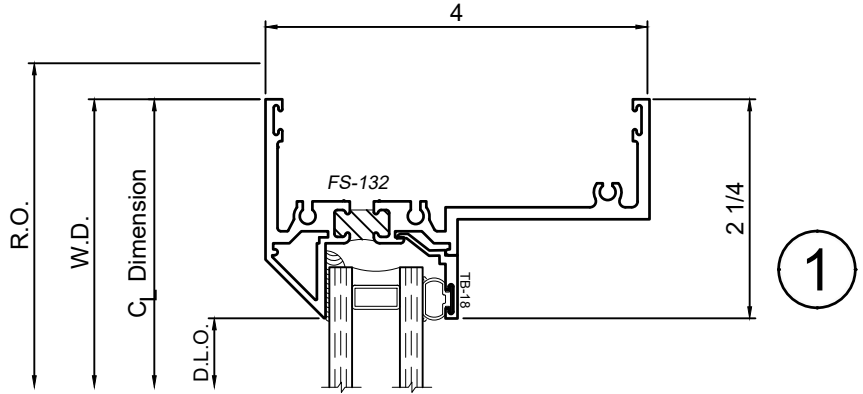
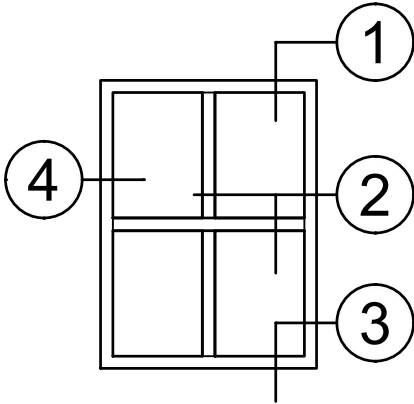
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Fixed - Picture Window



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.

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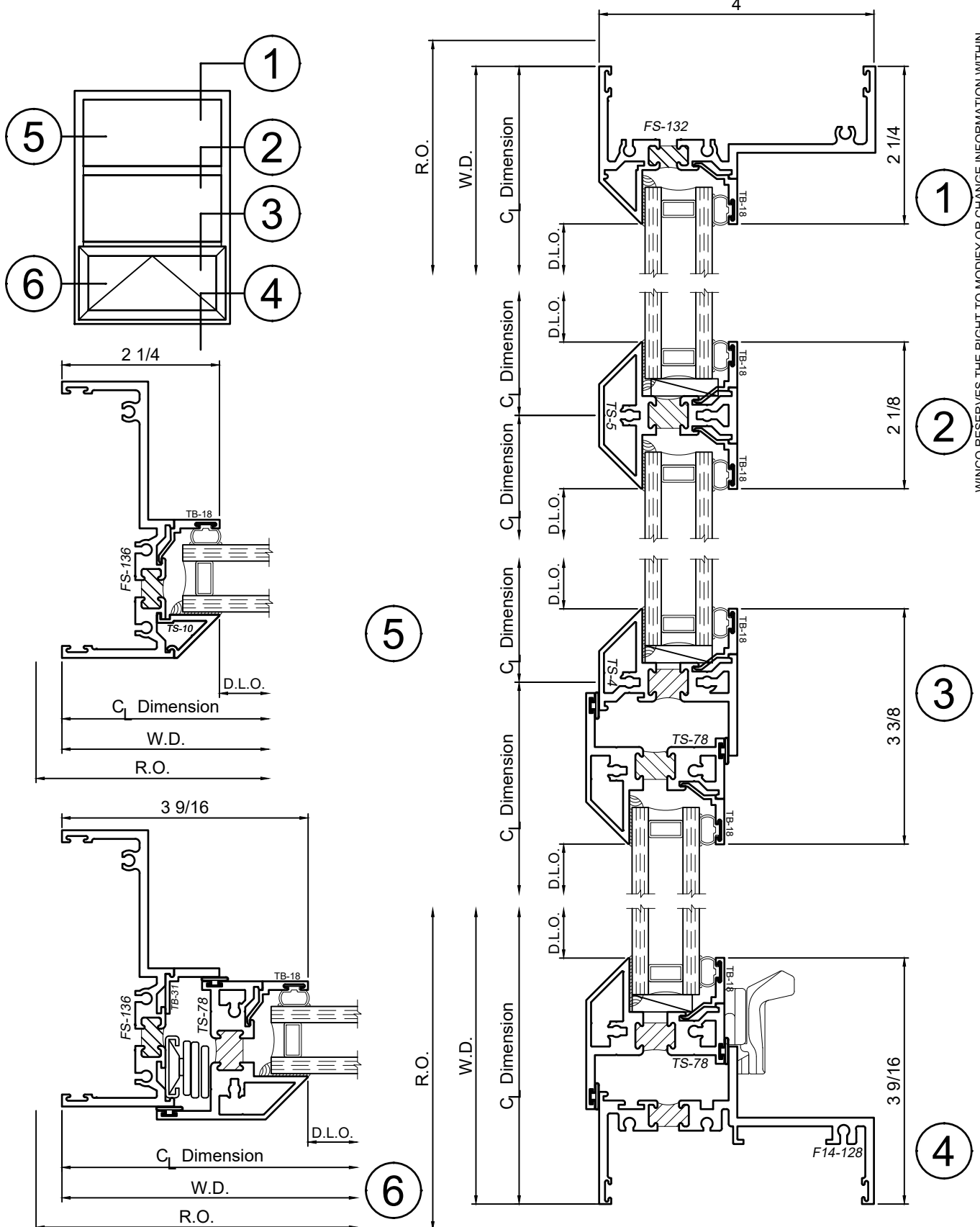
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Project Out - 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.



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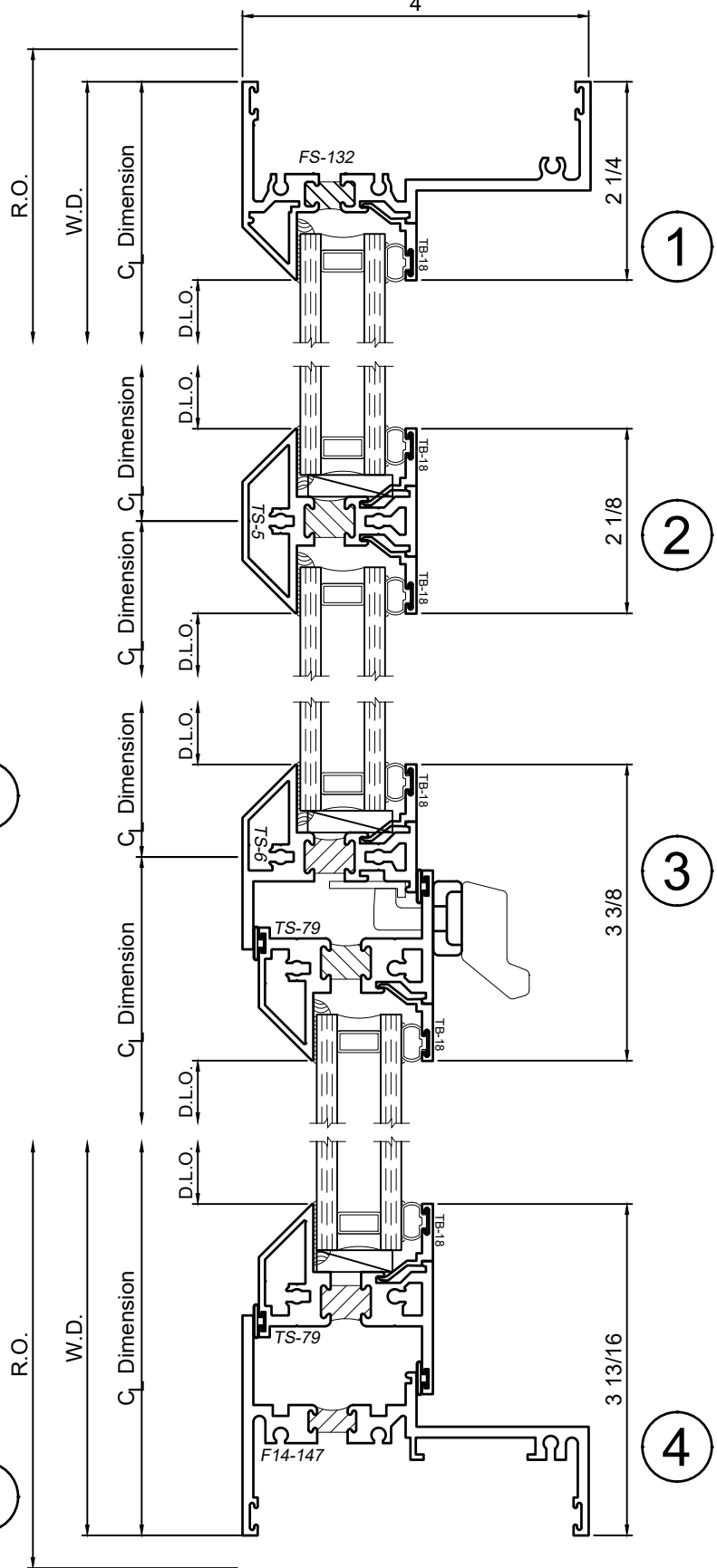
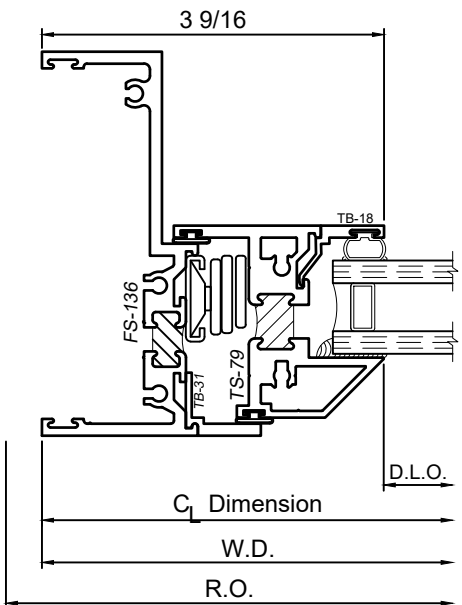
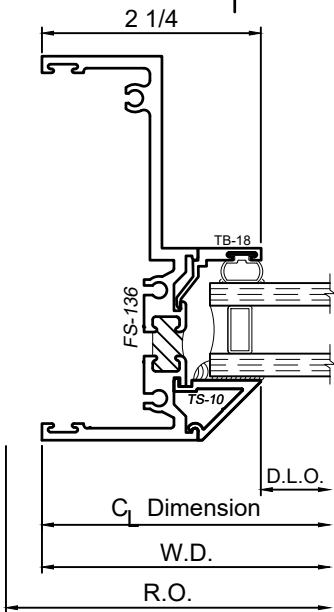
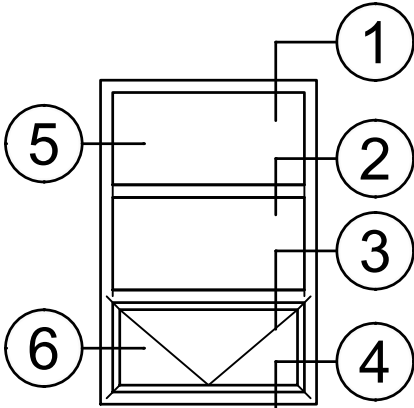
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Project In - Hopper



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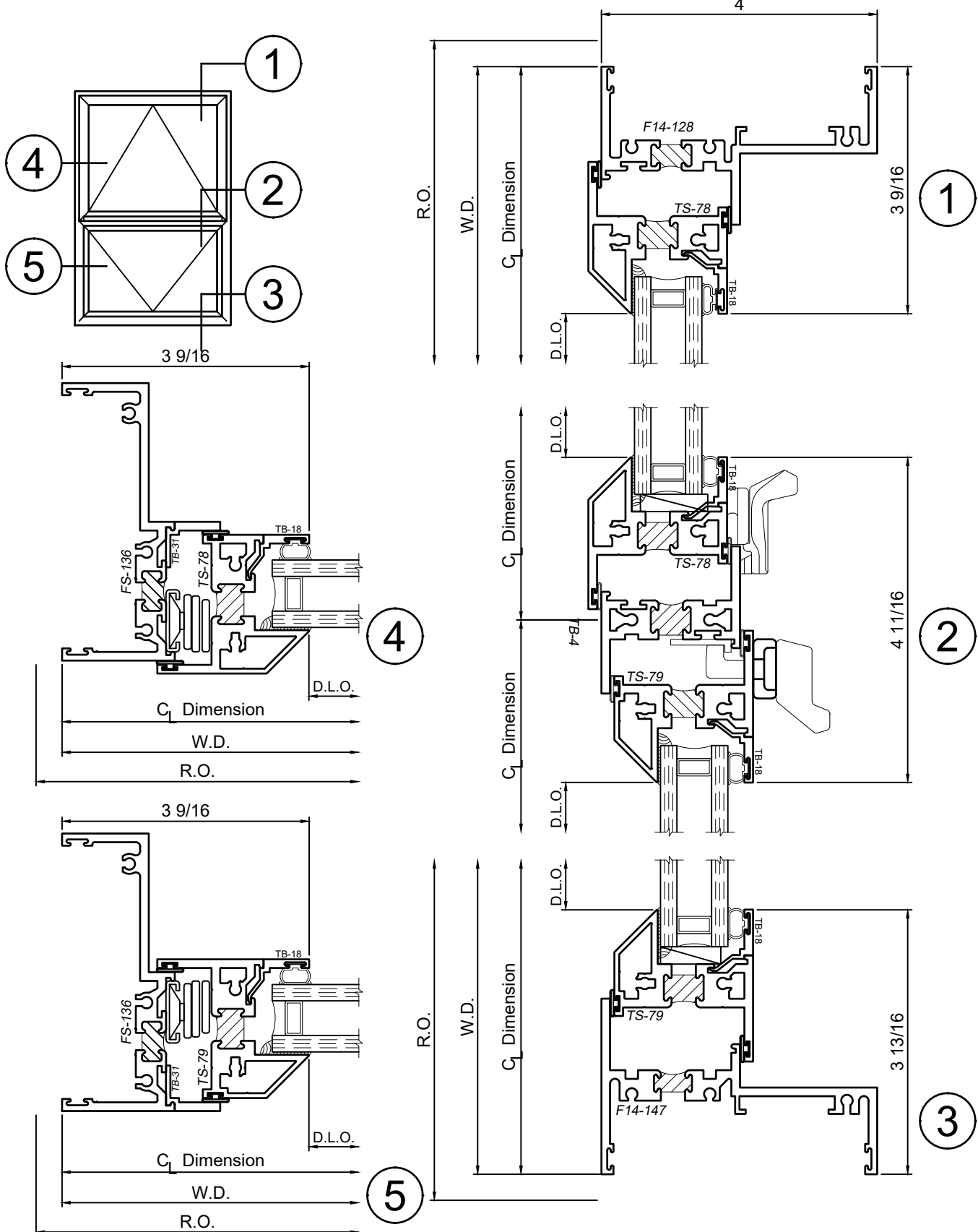
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - PO|PI - Awning|Hopper



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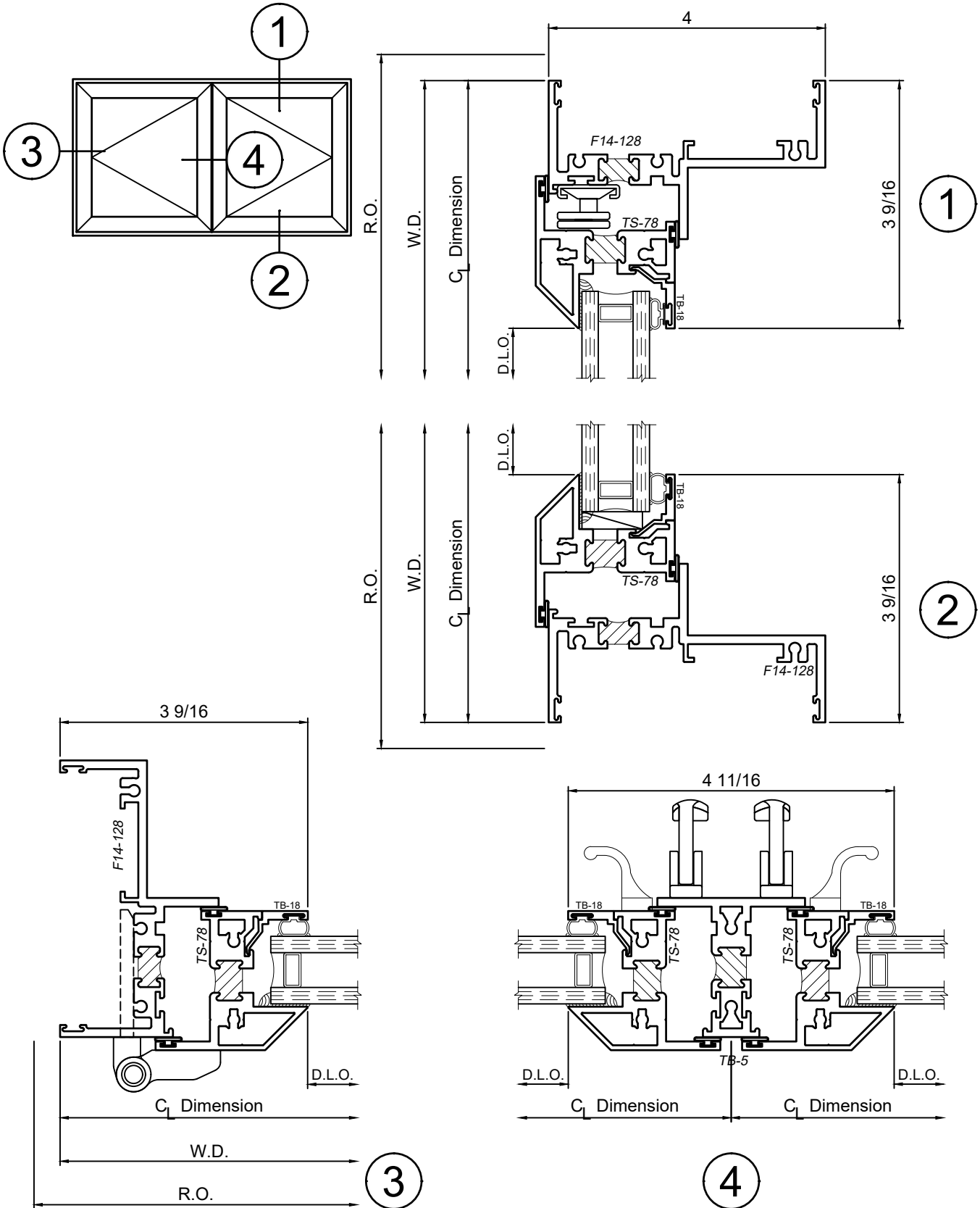
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Butterfly Casement - Outswing



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.

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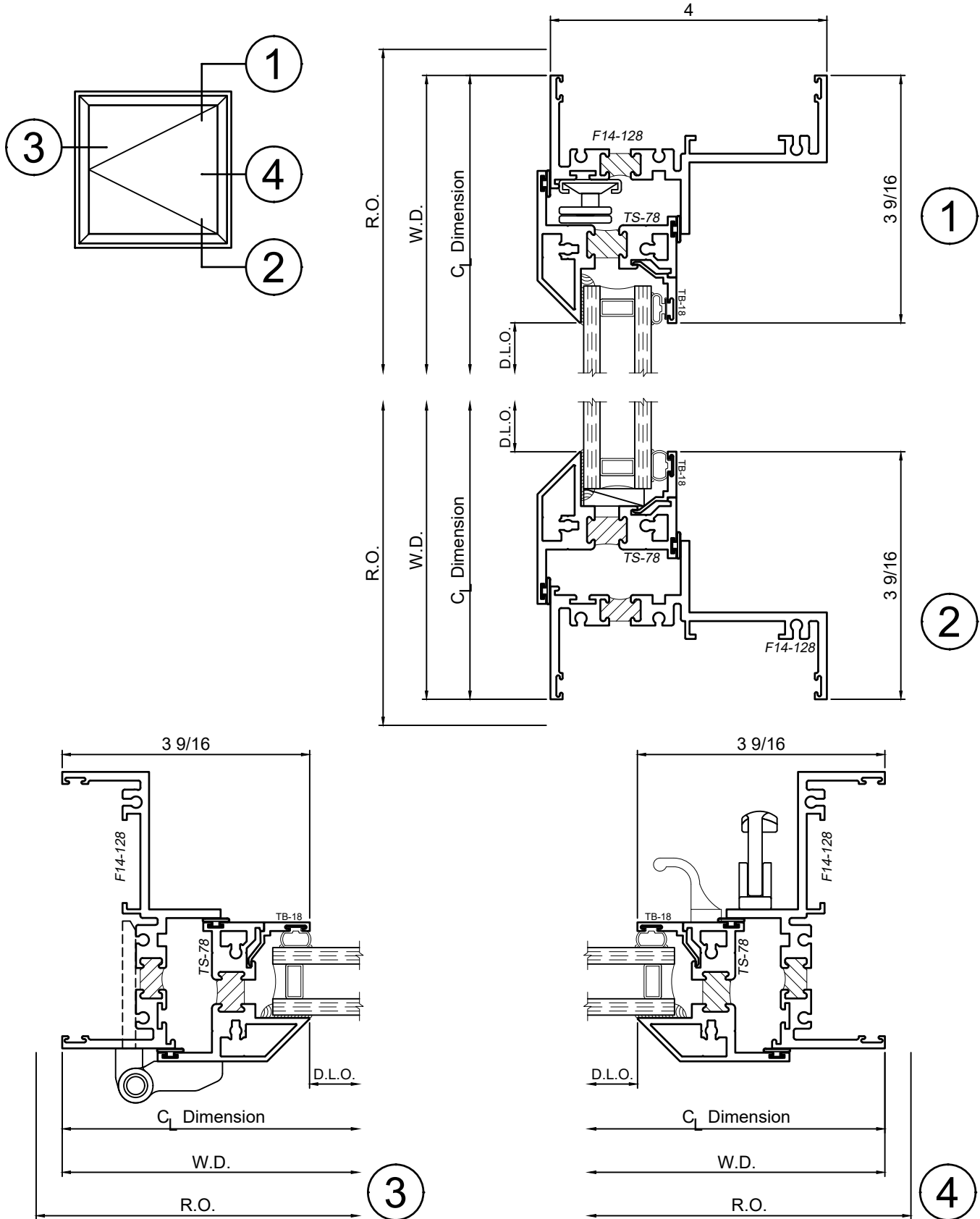
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Outswing Casement



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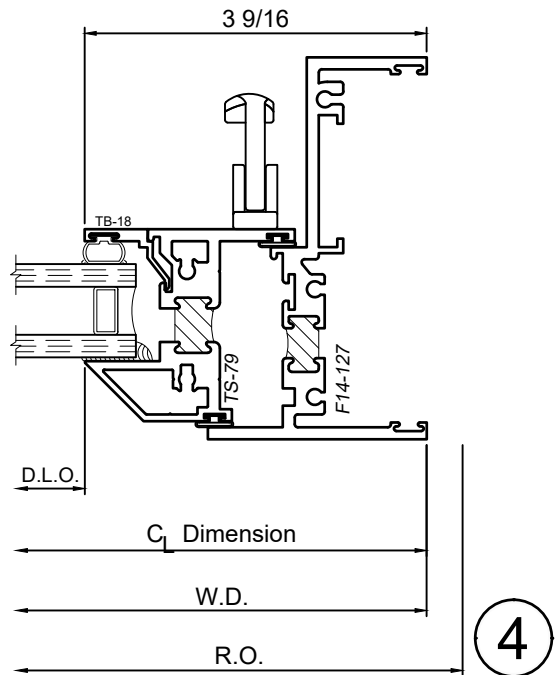
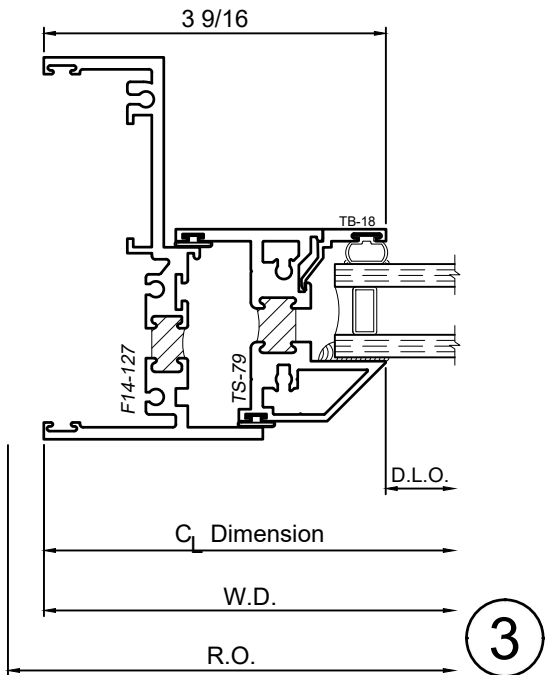
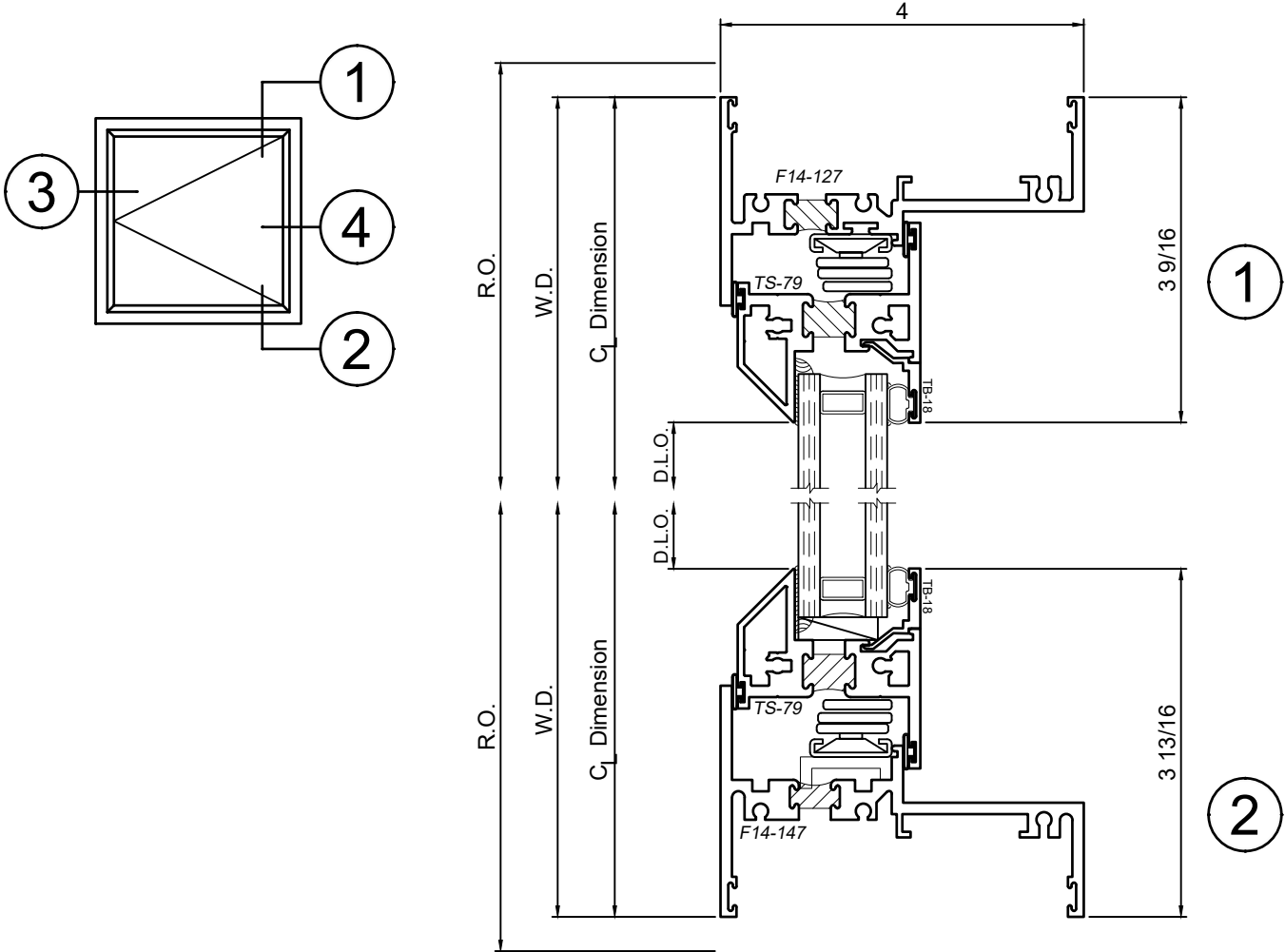
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Inswing Casement



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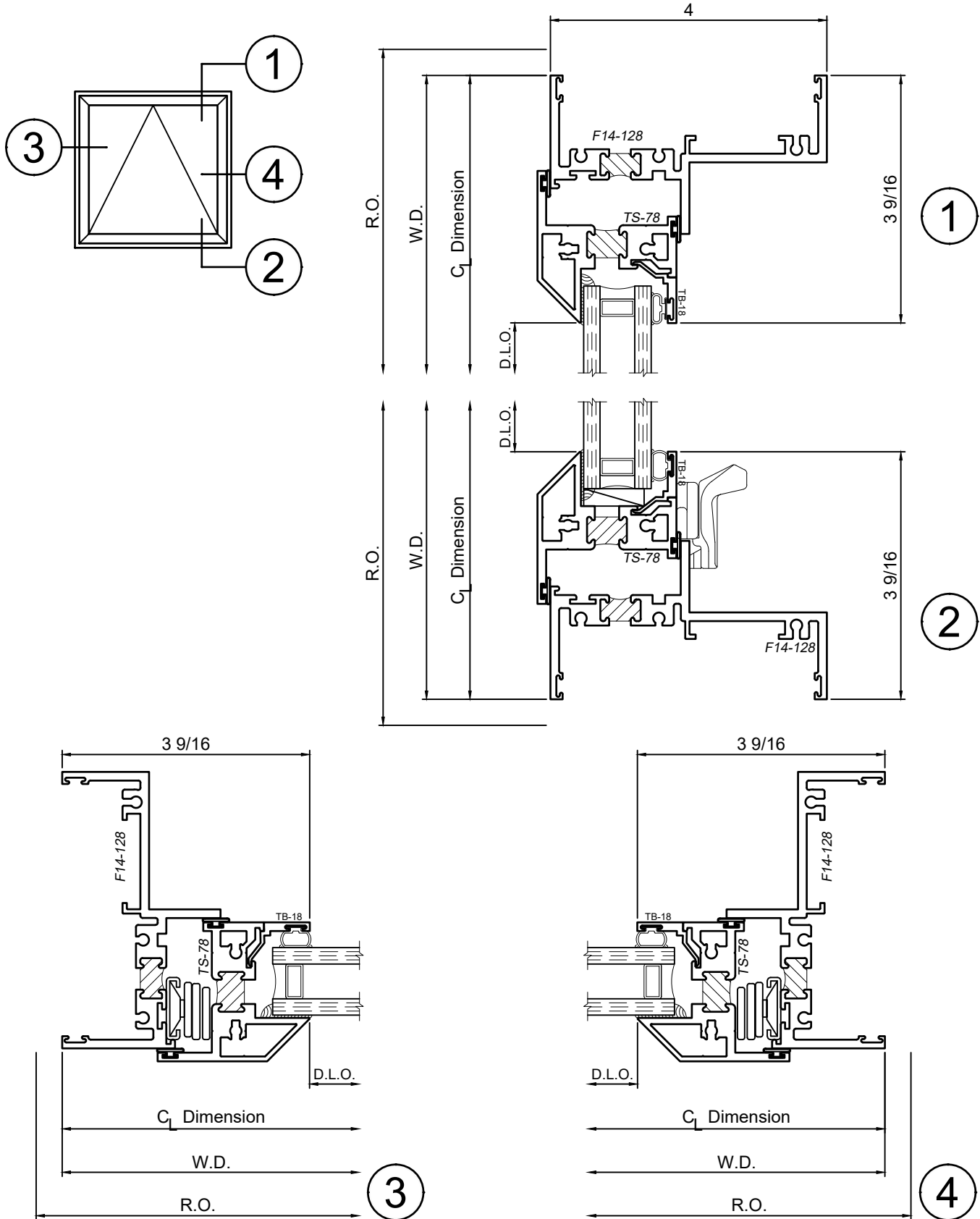
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Project Out - Awning



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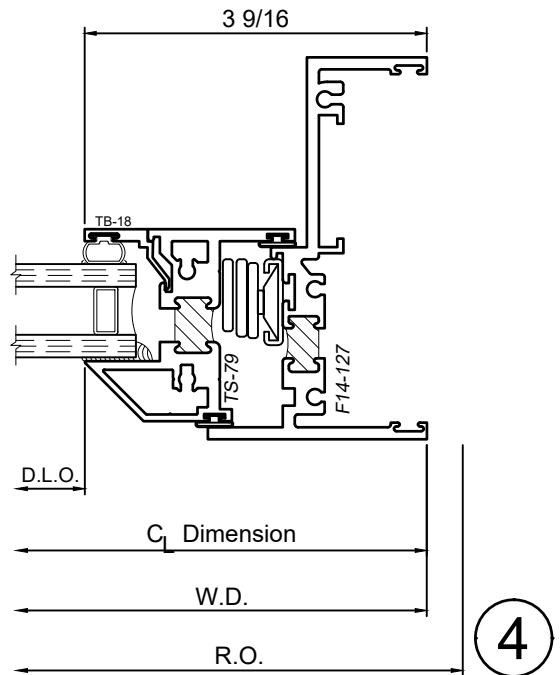
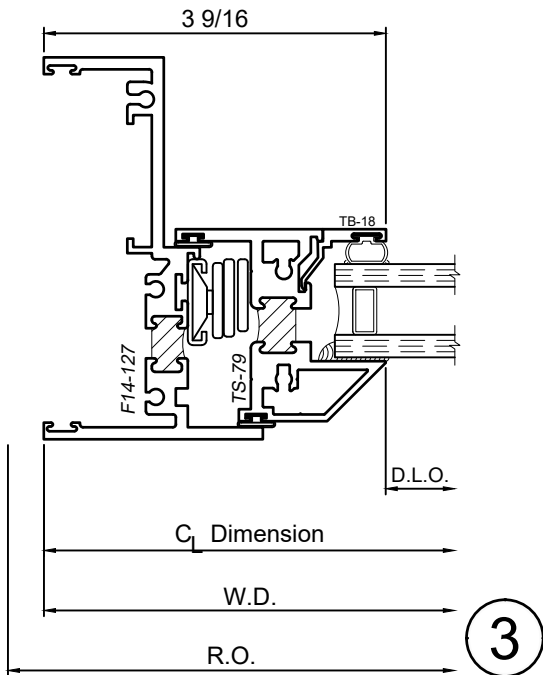
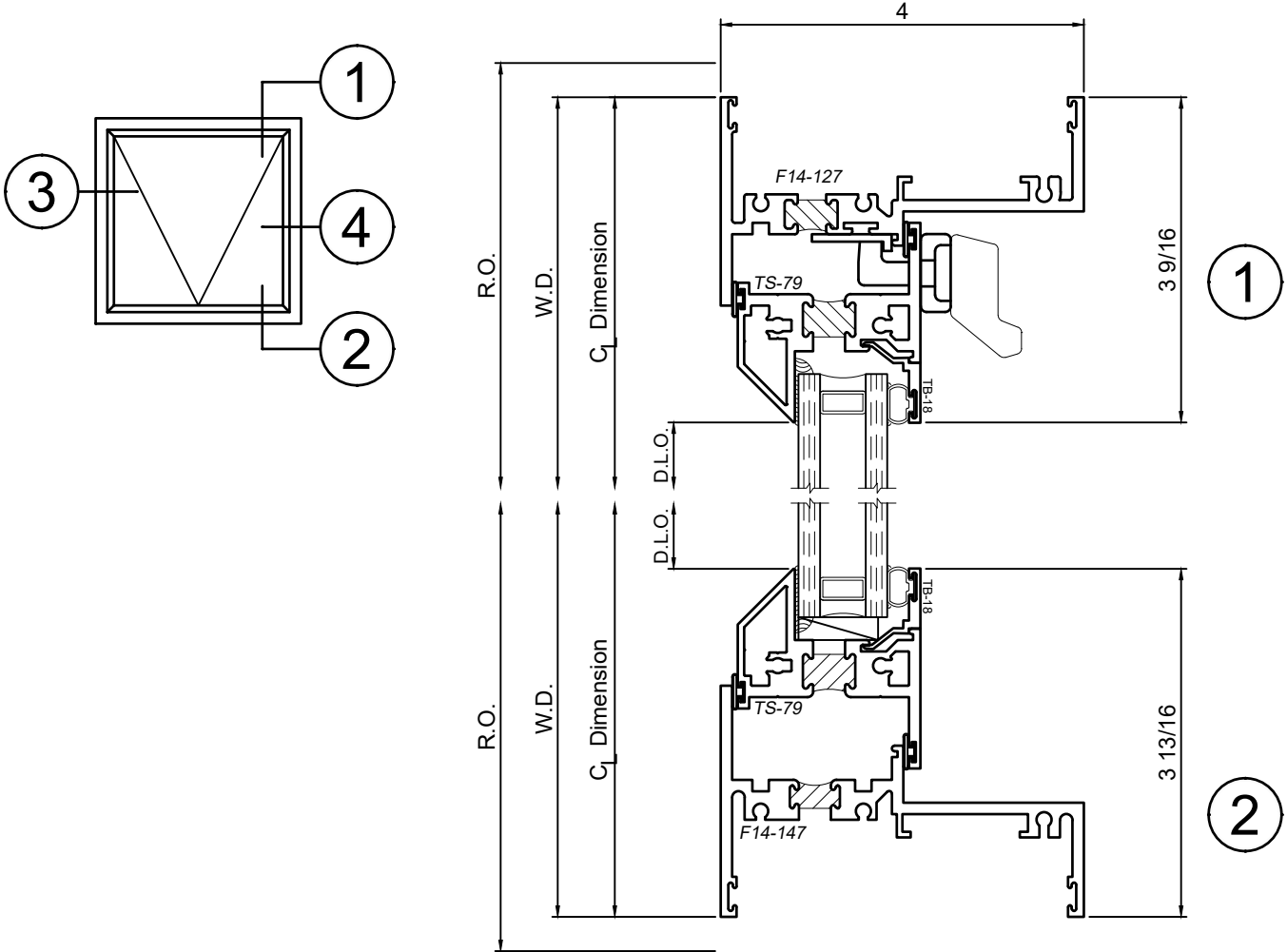
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Project In - Hopper



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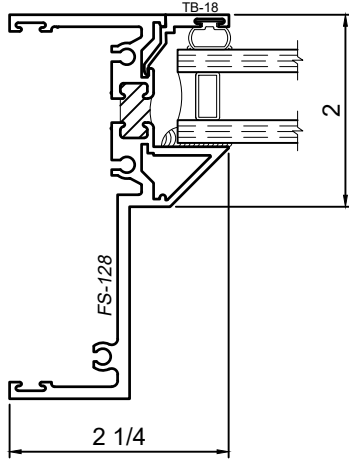
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Frame Options

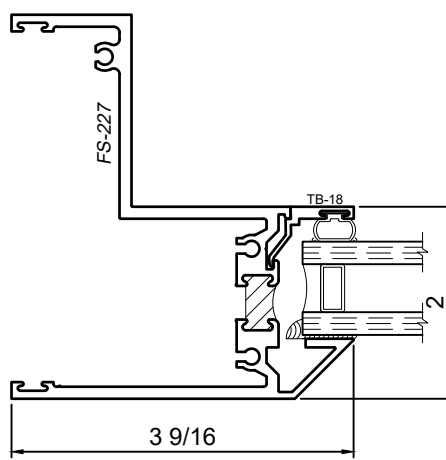


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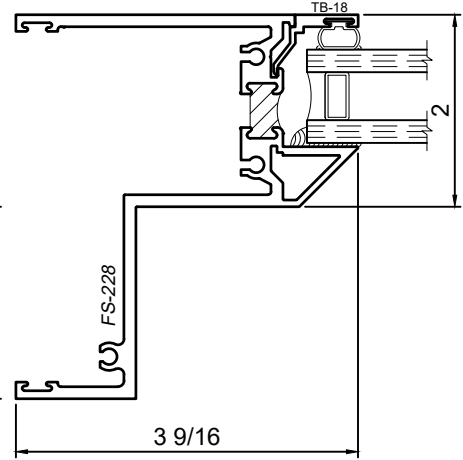
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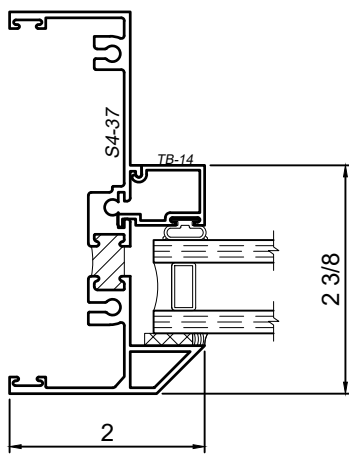
Available at head, jamb and sill
Fixed Lite Only



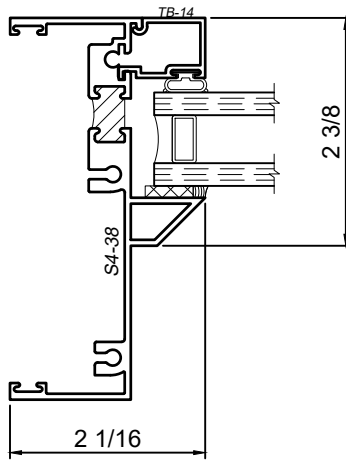
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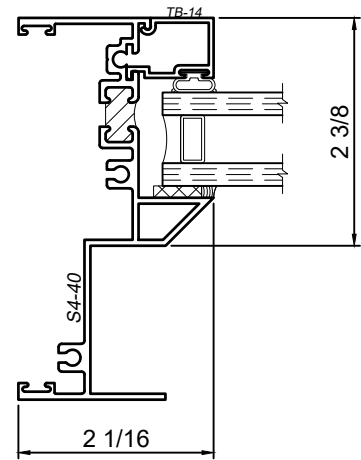
Available at head, jamb and sill
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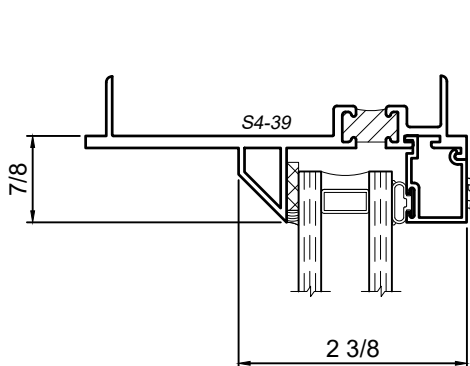
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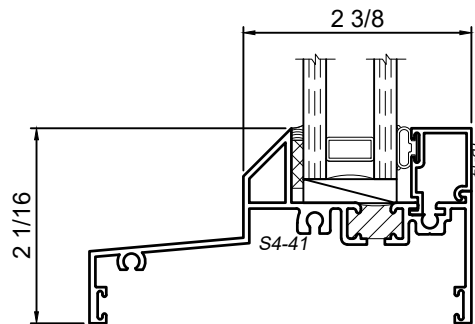
Available at head, jamb and sill
Fixed Lite Only



Available at jamb
Fixed Lite Only



Available at head and jamb
Fixed Lite Only



Available at sill
Fixed Lite Only

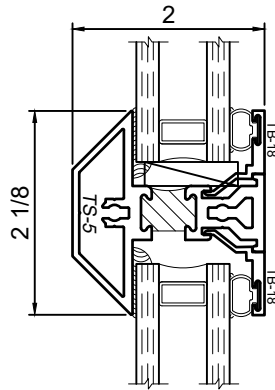
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

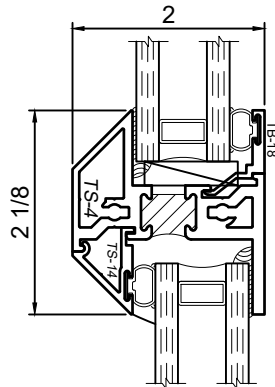
Product Details - 2 Inch Rail Options



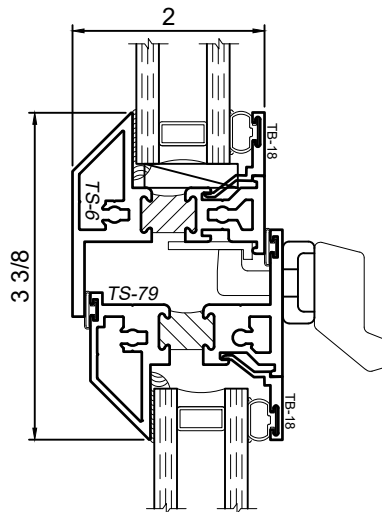
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Standard T - Rail



Standard Z - Rail



Standard Z - Rail

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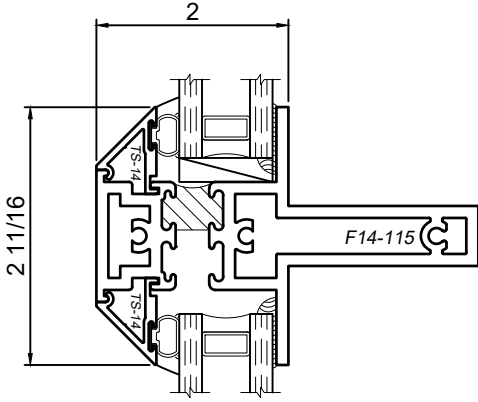
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - 4 Inch Rail Options

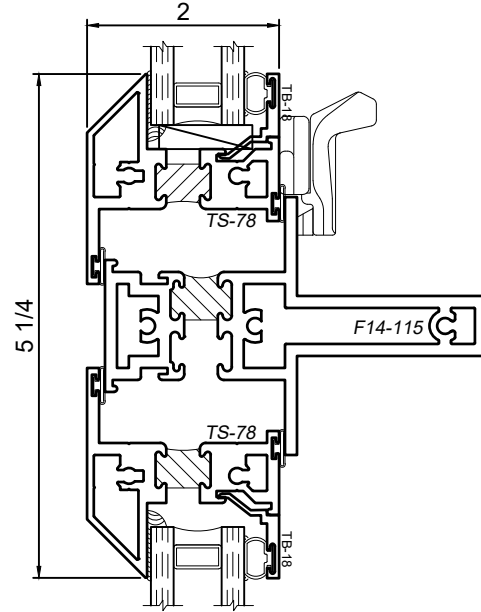


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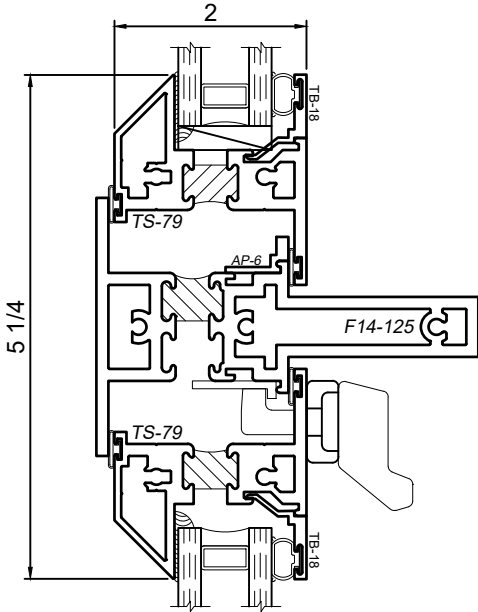
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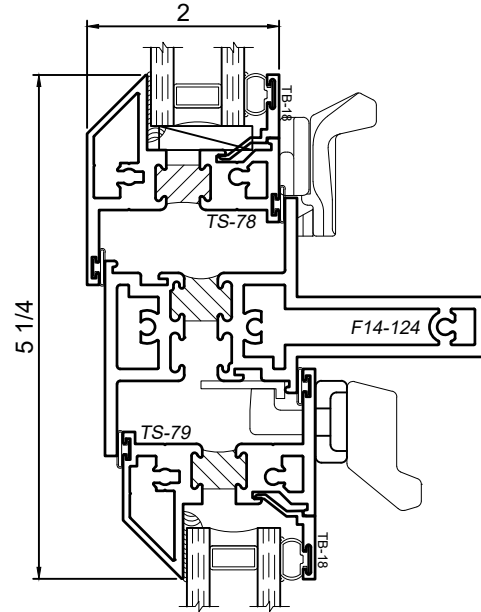
4" deep T - Rail
available only for exterior glazed fixed unit



4" deep T - Rail
available only for PO over PO unit



4" deep T - Rail
available only for PI over PI unit



4" deep Z - Rail
available only for PO over PI unit

SCALE 6"=1'-0"

1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details -



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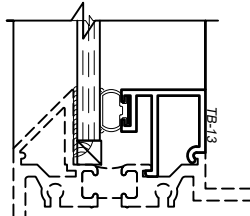
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Glazing Options

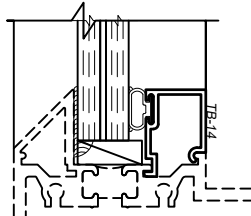


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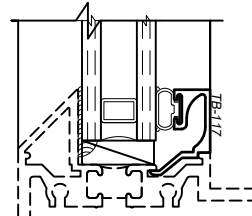
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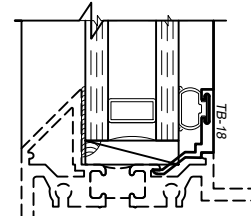
1/4" Glazing Bead
TB-13



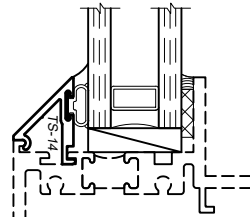
1/2" Glazing Bead
TB-14



3/4" Glazing Bead
TB-117

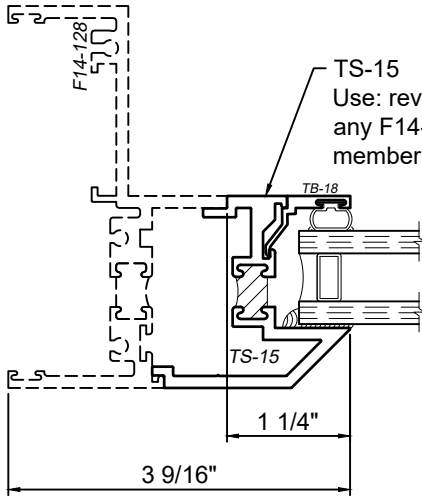


1" Glazing Bead
TB-18

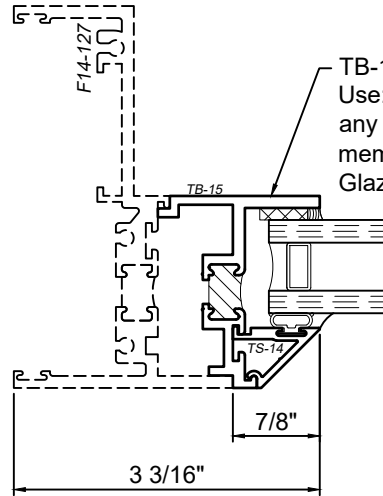


1" Exterior Glazed
TS-14

FRAME INSERTS



TS-15
Use: reverse glaze any F14-xxx frame member.



TB-15
Use: reverse glaze any F14-xxx frame member for Exterior Glazing.

Note: glazing options shown are a sample of what is available. If desired glazing is not shown please contact your local Winco Sales Representative for additional information.

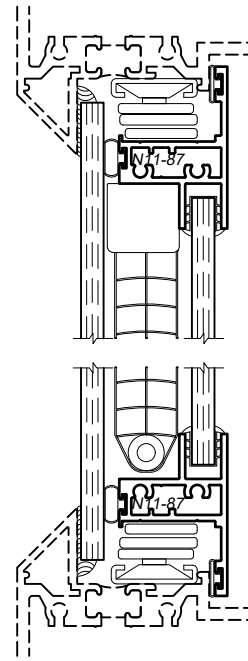
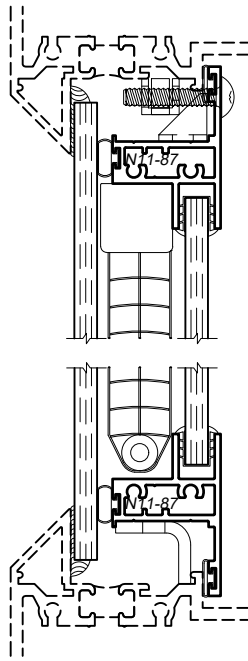
SCALE 6"=1'-0"

1450S Series 4" Thermal Fixed, Casement & Projected Windows

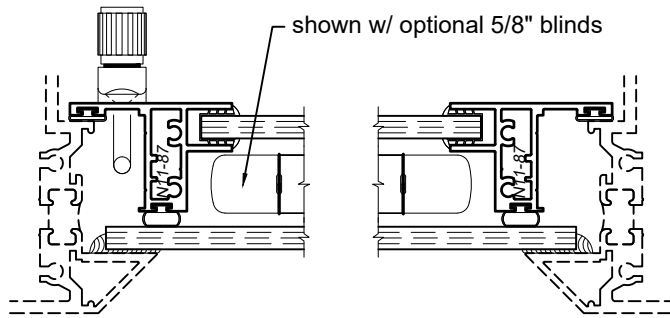
Product Details - Dual Glazed w/ Interior Sash



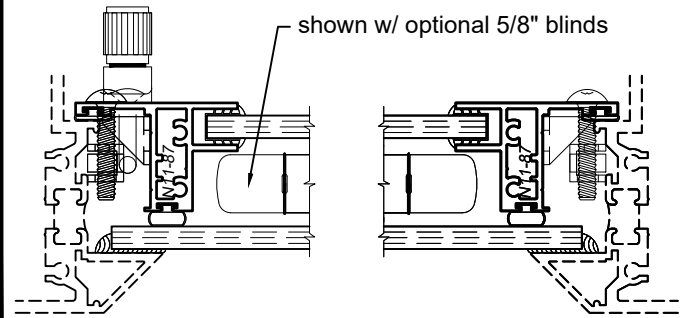
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.



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Dual Glazed w/ Take Out Sash - 65 Option



Dual Glazed w/ Hinged Sash - 75 Option

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SCALE 6"=1'-0"

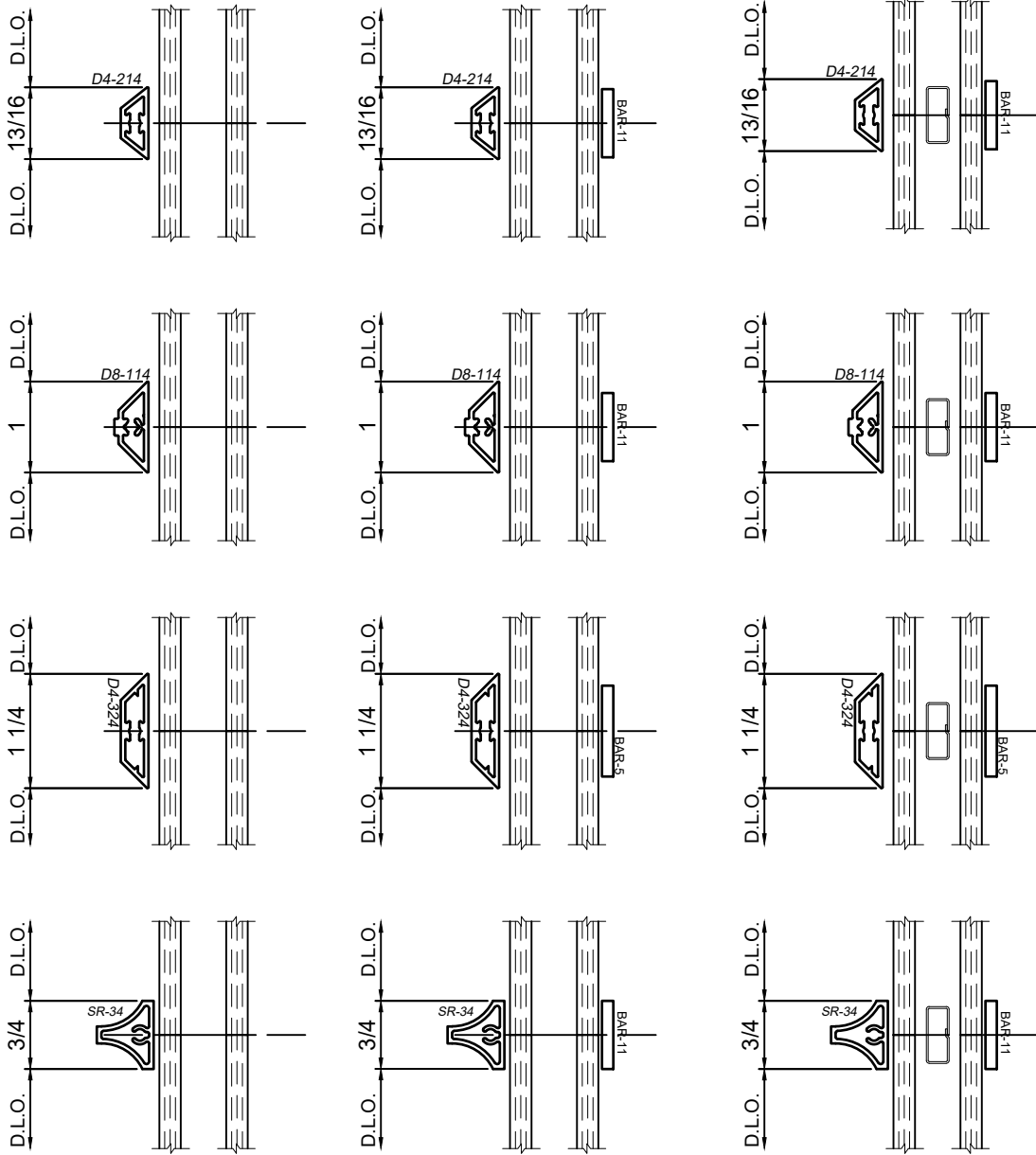
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Grid 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.

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SCALE 6"=1'-0"

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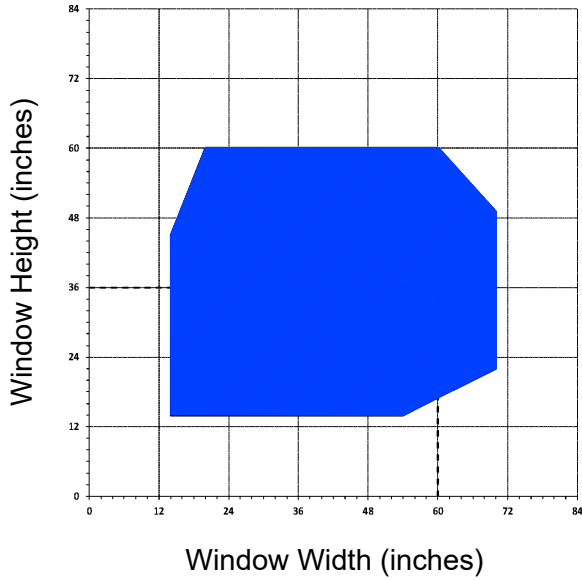
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Projected Vent Size Capabilities Charts

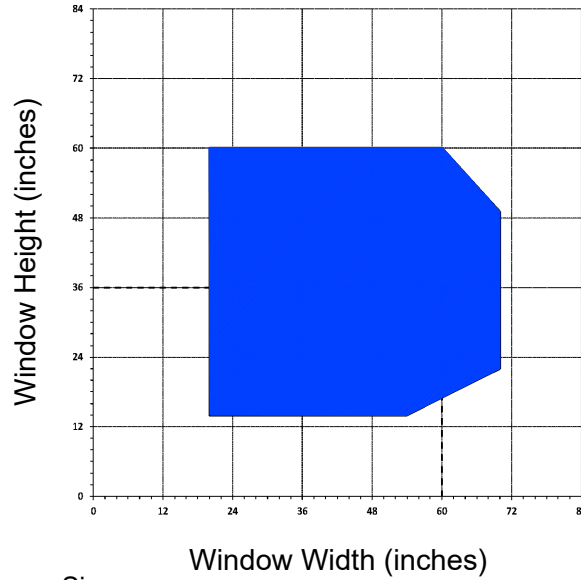


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Projected In / Out with Four Bar Arms



Projected In / Out with Pivot Shoe Roto-Operator



----- AAMA Gateway Size

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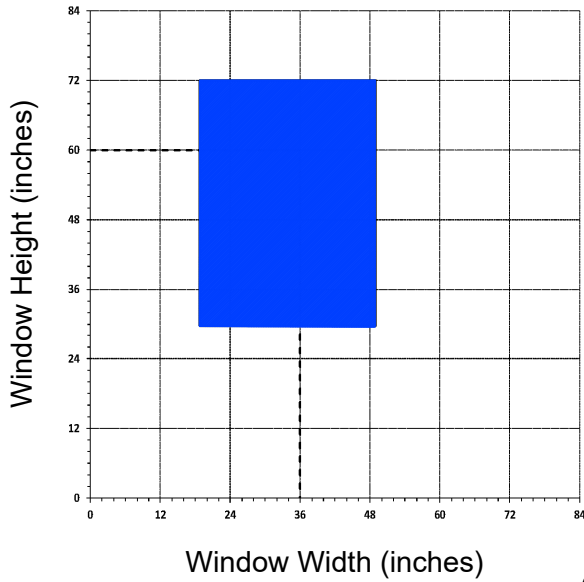
- Dashed line represents the gateway size window as tested by AAMA.
- All vent sizes are based upon 1" Insulated glass consisting of 1/4" glass - 1/2" air - 1/4" glass.
- Any vent size outside of the AAMA Gateway tested size may have reduced performance.
- Chart assumes the window has been installed 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 10" x 14-3/4" 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.

1450S Series 4" Thermal Fixed, Casement & Projected Windows

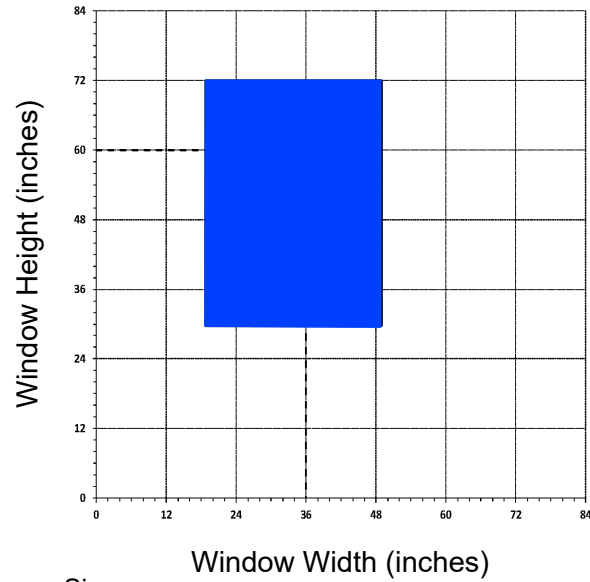
Casement Vent Size Capabilities Charts



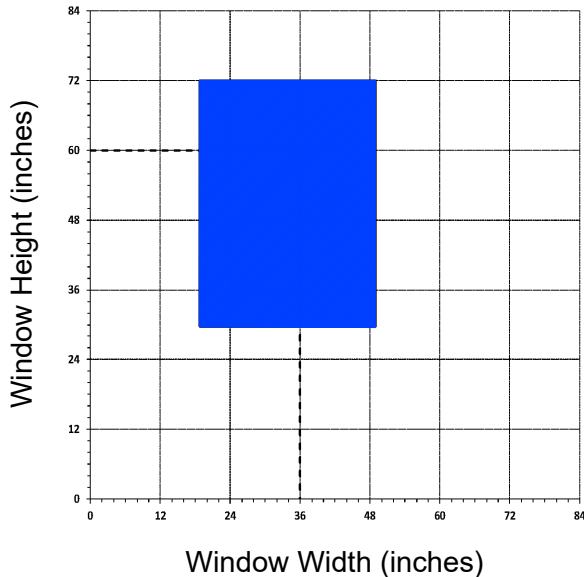
Casement with Roto-Operator
w/ 5 Knuckle Butt Hinge &
Multi Point Locks



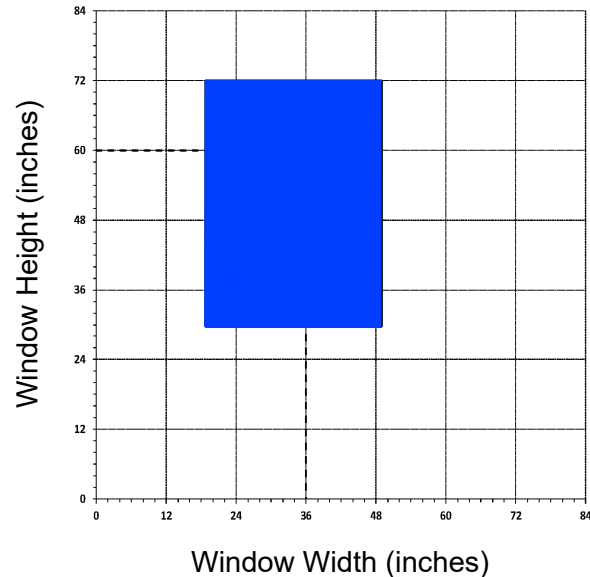
Casement with 5 Knuckle Butt
Hinge & Cam Locks



Casement with Concealed
Four Bar Casement Arm &
Multi Point Locks



Casement with Concealed
Four Bar Casement Arm &
Cam Locks



----- AAMA Gateway Size

- Dashed line represents the gateway size window as tested by AAMA.
- All vent sizes are based upon 1" Insulated glass consisting of 1/4" glass - 1/2" air - 1/4" 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 18-3/4" x 29-3/8" 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.

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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Vertical Stack - FS-132 / FS-149



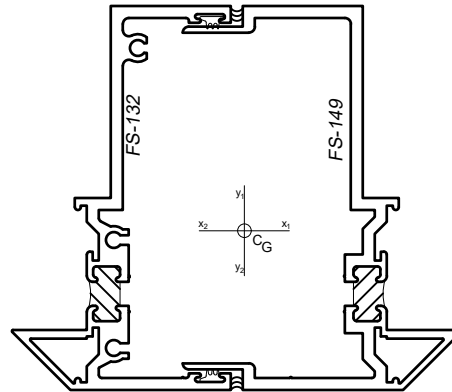
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

WINCO RESERVES THE RIGHT TO MODIFY OR CHANGE INFORMATION WITHIN THIS BOOK WHEN DEEMED NECESSARY FOR PRODUCT IMPROVEMENT

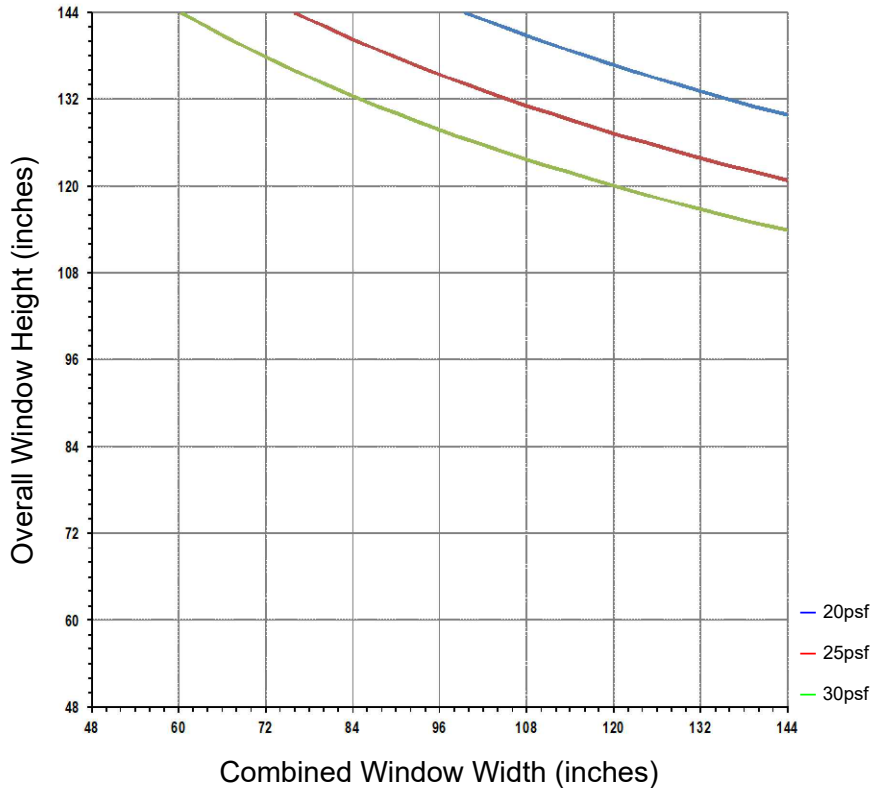
Combined Properties

	X-X	Y-Y
I	4.8688 in ⁴	0.6191 in ⁴
S	2.1241 in ³	0.4317 in ³

Maximum area = 40 ft²
 Maximum Total Unit Weight
 must not exceed 500 lbs.



Wind Load Chart



This chart can be used as a guideline for the preliminary structural evaluation of the mullion/stack shown. The chart is based on conservative engineering practices and the minimum result from either L/175 Deflection, 3/4" deflection, or 15 ksi outer fiber stress. The chart reflects the structural strength of 2 continuous window jambs running the full height of the opening. WINCO highly recommends consulting an engineer for any of the following circumstances:

- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- Any vent width exceeds 60".
- Window exceeds the maximum size shown.
- Window has multiple rails (>3).

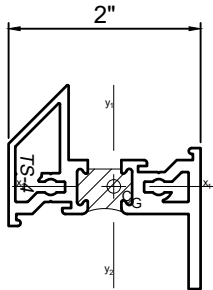
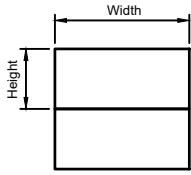
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - TS-4 Rail

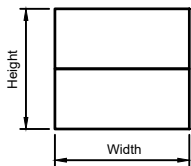


Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

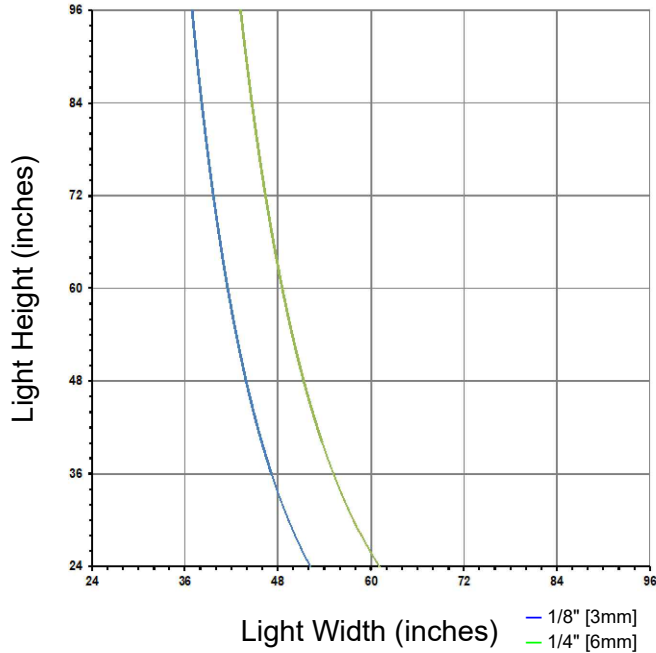


Section Properties

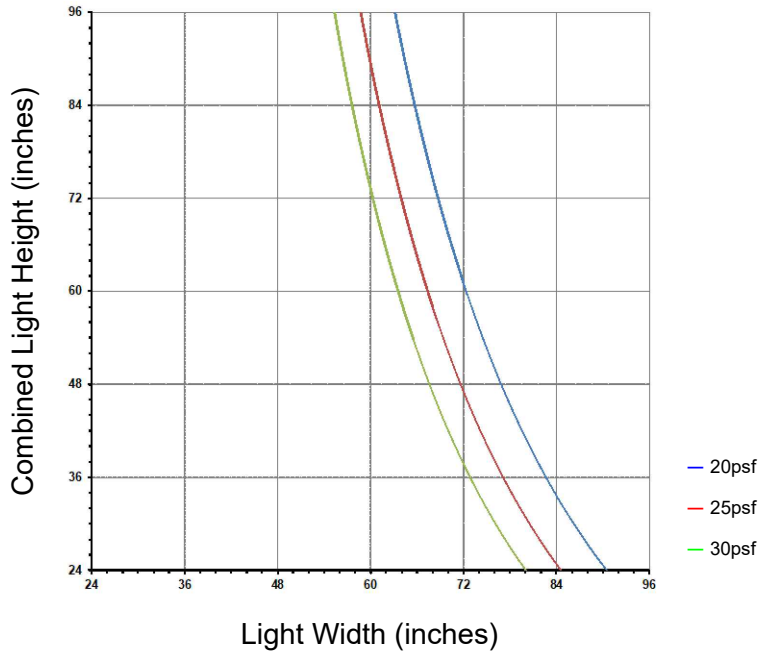
	X-X	Y-Y
I	0.3630 in ⁴	0.1261 in ⁴
S	0.3314 in ³	0.1181 in ³



Glass Dead Load Chart



Wind Load Chart



This chart can be used as a guideline for the preliminary structural evaluation of the Rail shown. The Dead Load chart is based on 1/4" - 1/2" - 1/4" I.G. and 0.090" deflection at 1/4 and 1/8 point blocking. The Wind Load Chart is based upon the minimum result from either L/175 deflection, 3/4" deflection, or 15 ksi outer fiber stress. The charts reflect the structural strength of only the Rail. WINCO highly recommends consulting an engineer for any of the following circumstances:

- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- I.G. make-up varies from the default.
- I.G. has additional blocking.

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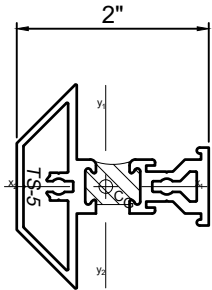
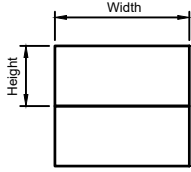
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - TS-5 Rail



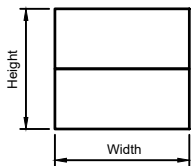
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

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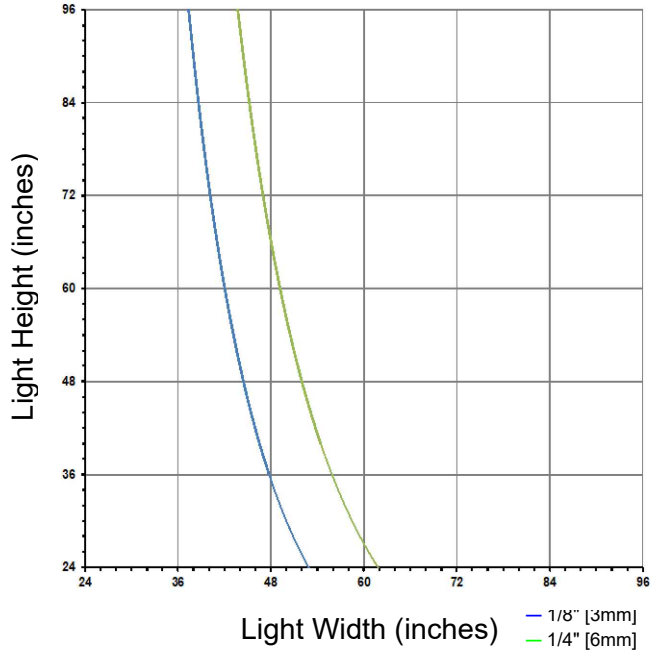


Section Properties

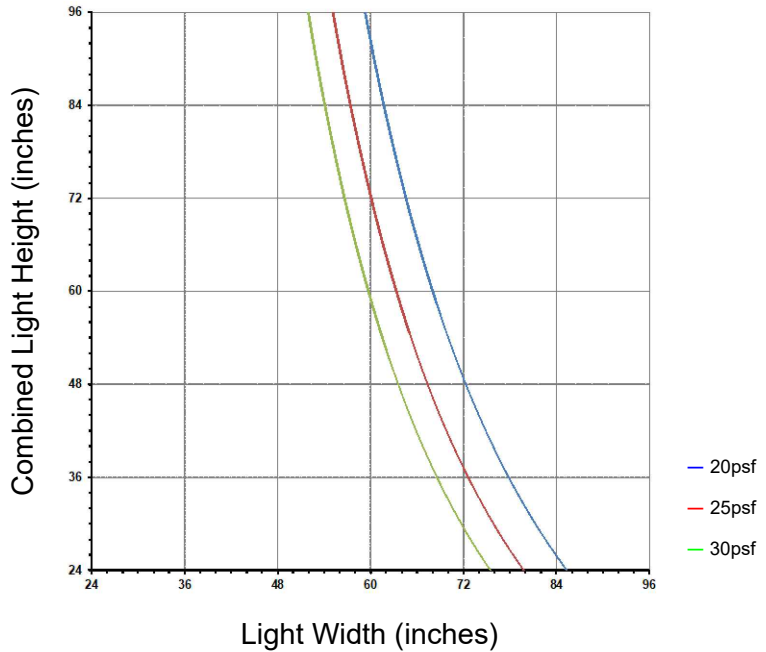
	X-X	Y-Y
I	0.2992 in ⁴	0.1324 in ⁴
S	0.2789 in ³	0.1246 in ³



Glass Dead Load Chart



Wind Load Chart



This chart can be used as a guideline for the preliminary structural evaluation of the Rail shown. The Dead Load chart is based on 1/4" - 1/2" - 1/4" I.G. and 0.090" deflection at 1/4 and 1/8 point blocking. The Wind Load Chart is based upon the minimum result from either L/175 deflection, 3/4" deflection, or 15 ksi outer fiber stress. The charts reflect the structural strength of only the Rail. WINCO highly recommends consulting an engineer for any of the following circumstances:

- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- I.G. make-up varies from the default.
- I.G. has additional blocking.

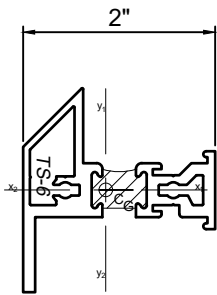
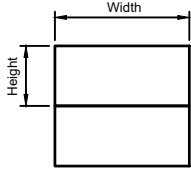
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - TS-6 Rail

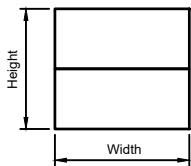


Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

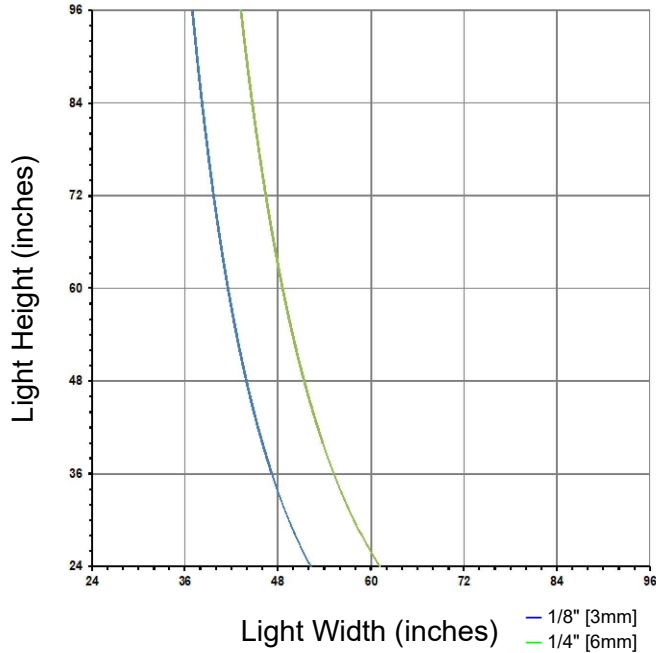


Section Properties

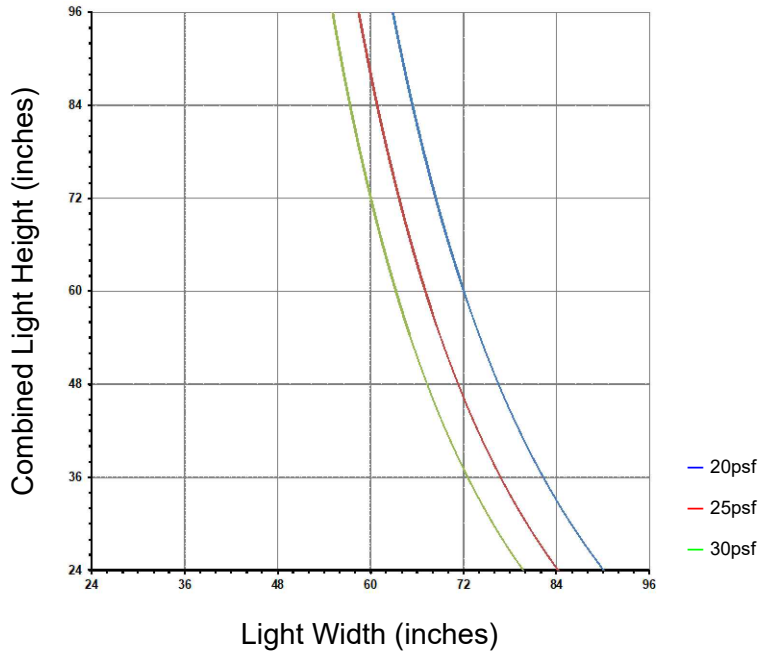
	X-X	Y-Y
I	0.3581 in ⁴	0.1266 in ⁴
S	0.3142 in ³	0.1189 in ³



Glass Dead Load Chart



Wind Load Chart



This chart can be used as a guideline for the preliminary structural evaluation of the Rail shown. The Dead Load chart is based on 1/4" - 1/2" - 1/4" I.G. and 0.090" deflection at 1/4 and 1/8 point blocking. The Wind Load Chart is based upon the minimum result from either L/175 deflection, 3/4" deflection, or 15 ksi outer fiber stress. The charts reflect the structural strength of only the Rail. WINCO highly recommends consulting an engineer for any of the following circumstances:

- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- I.G. make-up varies from the default.
- I.G. has additional blocking.

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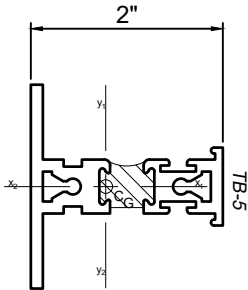
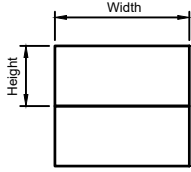
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - TB-5 Rail



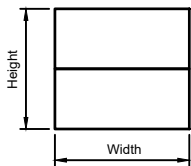
Note: Multiple configurations of this window system are available. Refer to the WINCO website for additional options or contact your local WINCO Sales Representative for information.

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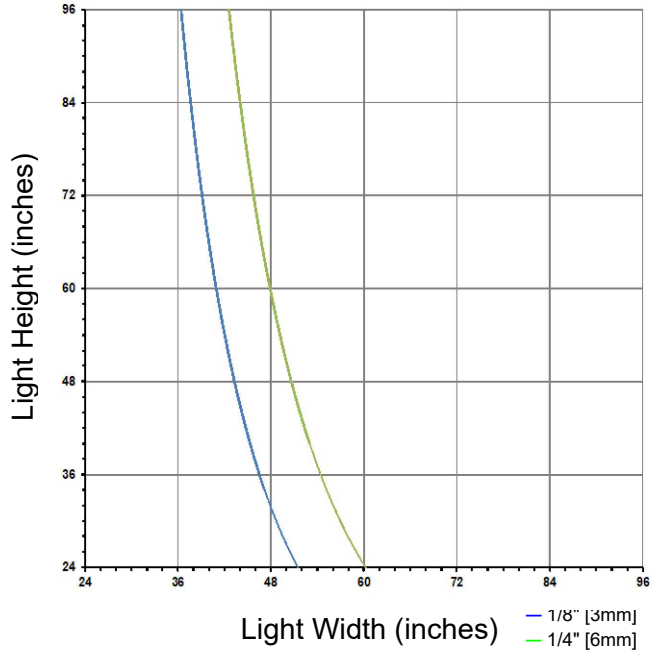


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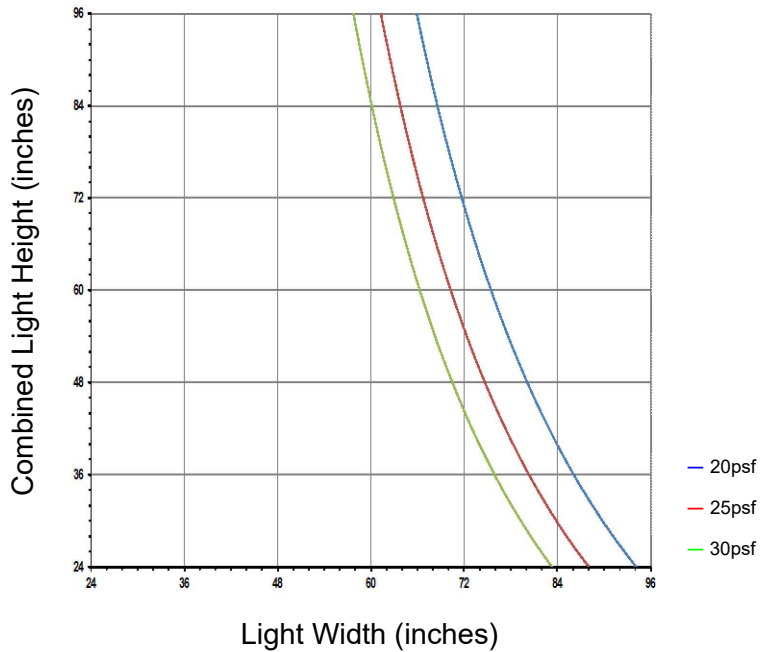
	X-X	Y-Y
I	0.4142 in ⁴	0.1191 in ⁴
S	0.3394 in ³	0.1121 in ³



Glass Dead Load Chart



Wind Load Chart



This chart can be used as a guideline for the preliminary structural evaluation of the Rail shown. The Dead Load chart is based on 1/4" - 1/2" - 1/4" I.G. and 0.090" deflection at 1/4 and 1/8 point blocking. The Wind Load Chart is based upon the minimum result from either L/175 deflection, 3/4" deflection, or 15 ksi outer fiber stress. The charts reflect the structural strength of only the Rail. WINCO highly recommends consulting an engineer for any of the following circumstances:

- The window under consideration falls close too or on the design pressure line.
- Any rail exceeds 48" with a large (>16ft²) light of glass above.
- I.G. make-up varies from the default.
- I.G. has additional blocking.

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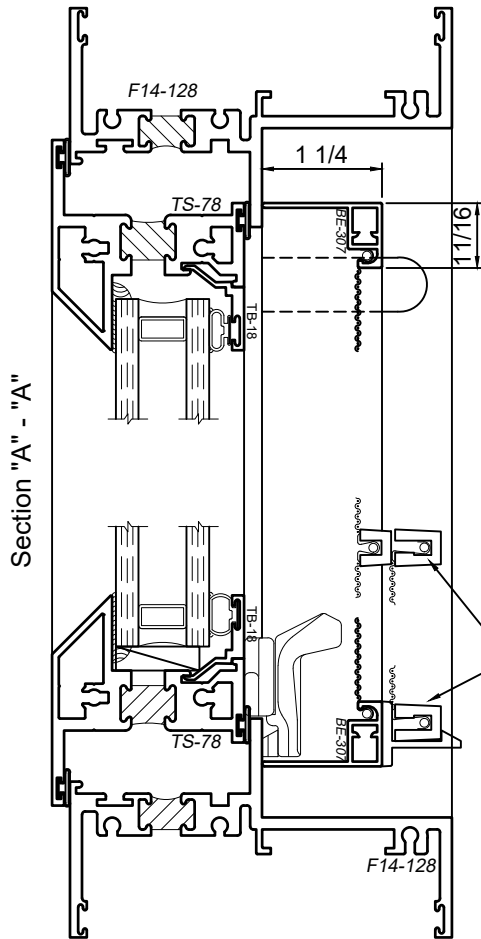
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Screen Options - PO - Awning

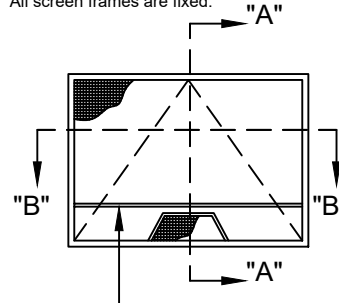


Note: Typical vent screen details shown. Winco reserves the right to alter the screen attachment detail due to job specific sizing and hardware. If you have specific screen applications you would like to see please contact your local Winco Sales Representative for more information.


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

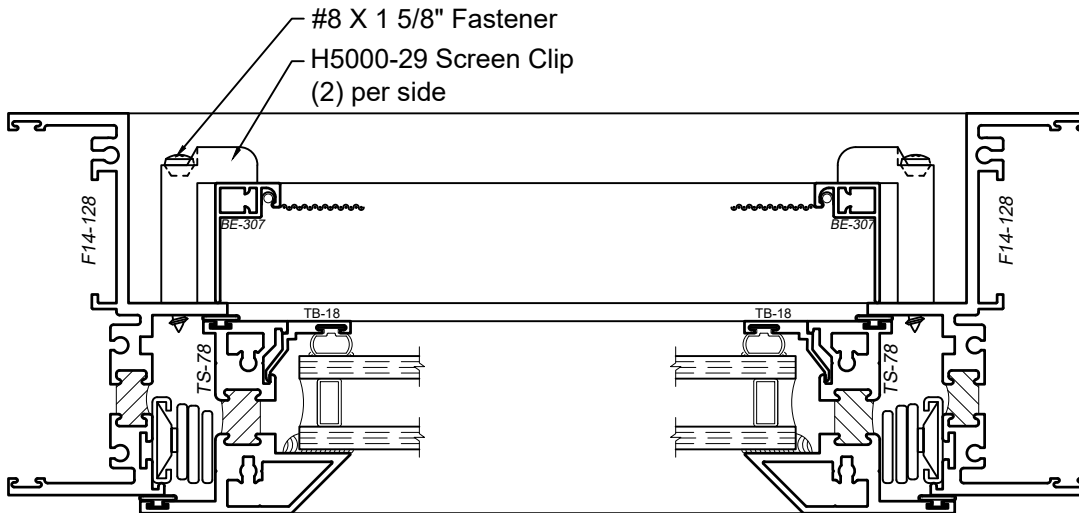


Optional D8-90 Muntin Bar



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.

Top hinged Wicket
(1) per cam lock



Section "B" - "B"

SCALE 6"=1'-0"

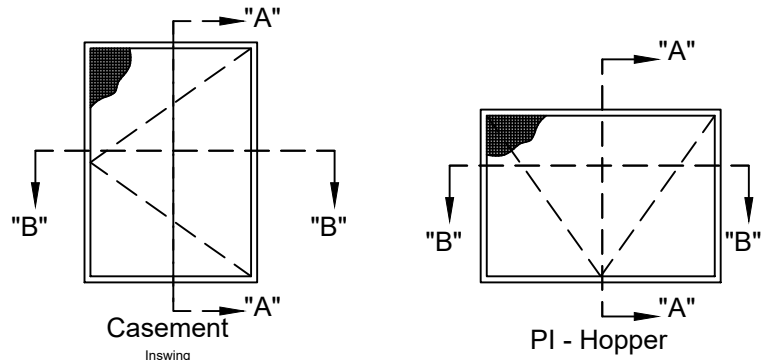
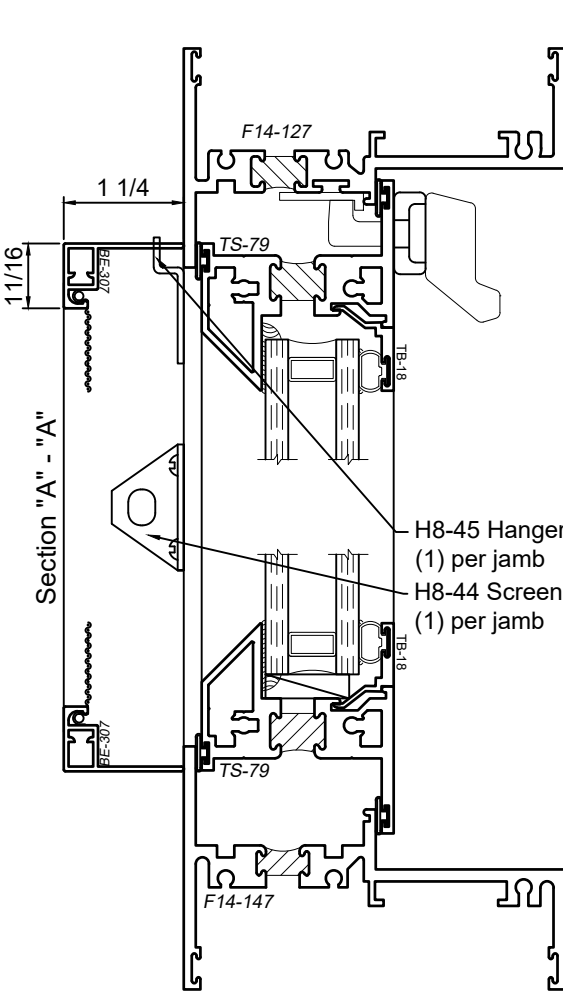
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1450S Series 4" Thermal Fixed, Casement & Projected Windows

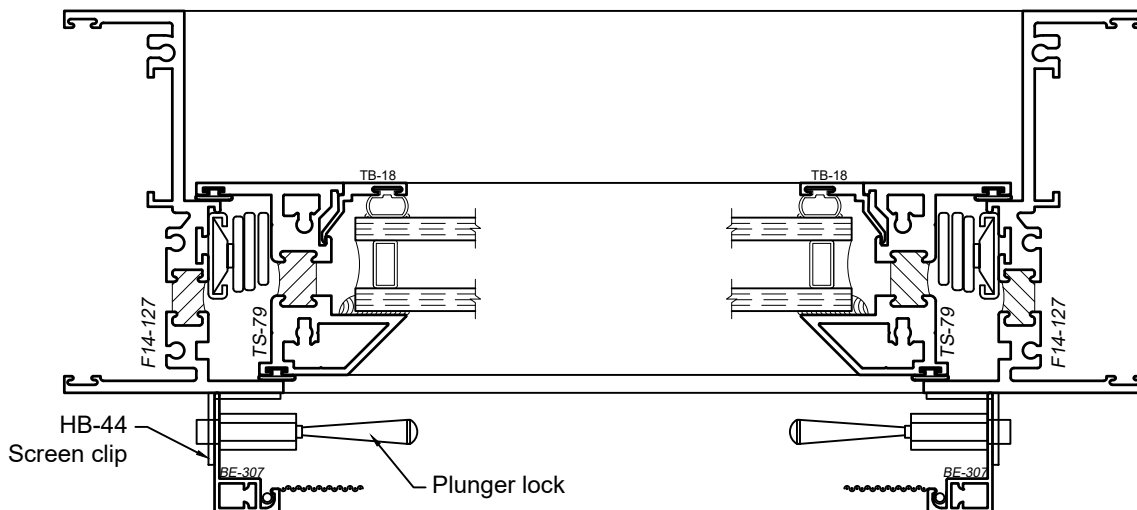
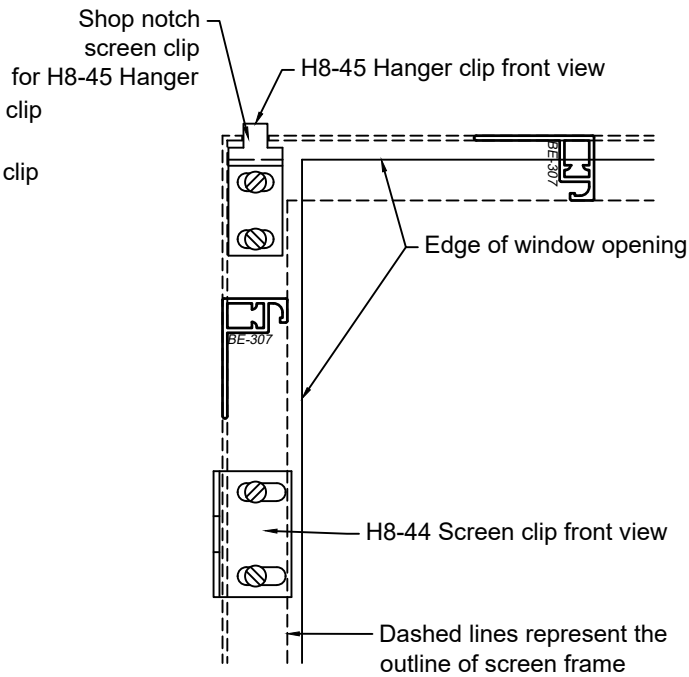
Product Details - Screen Options - PI Hopper



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.



SCALE 6"=1'-0"

Section "B" - "B"

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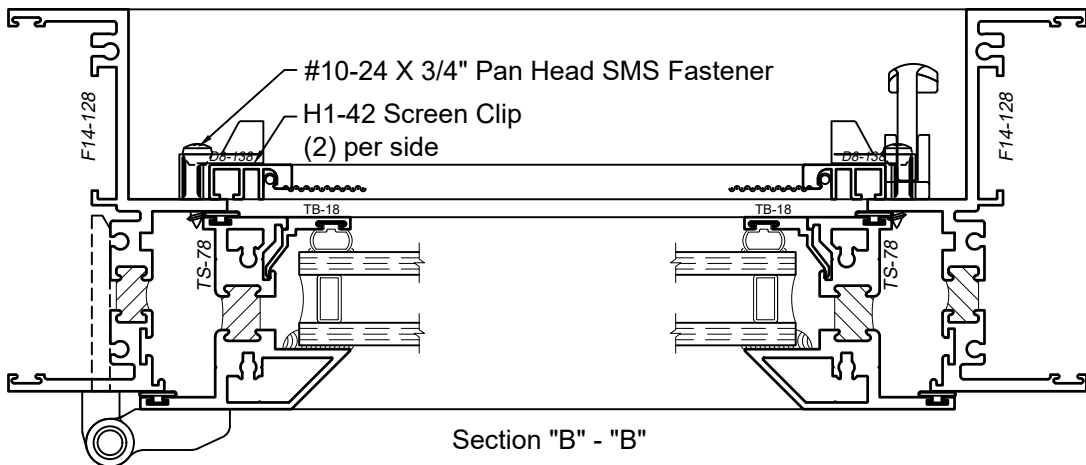
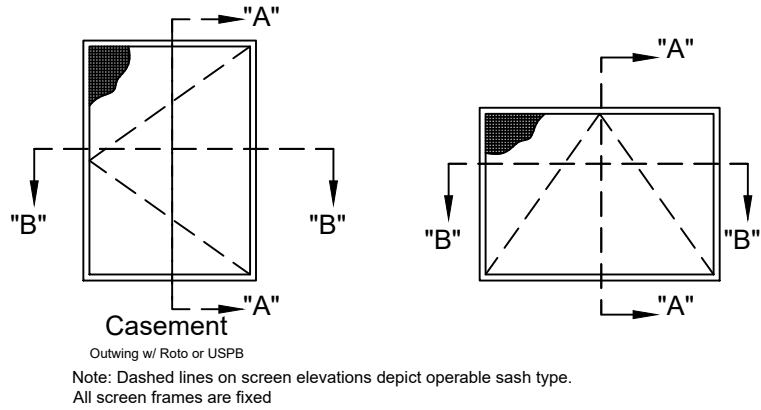
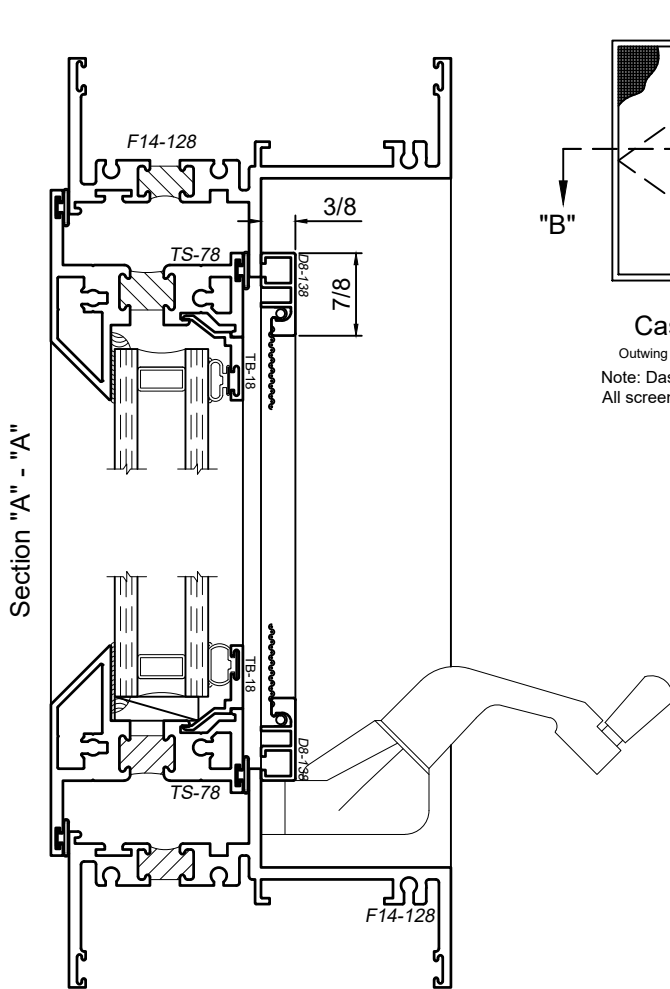
1450S Series 4" Thermal Fixed, Casement & Projected Windows

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.

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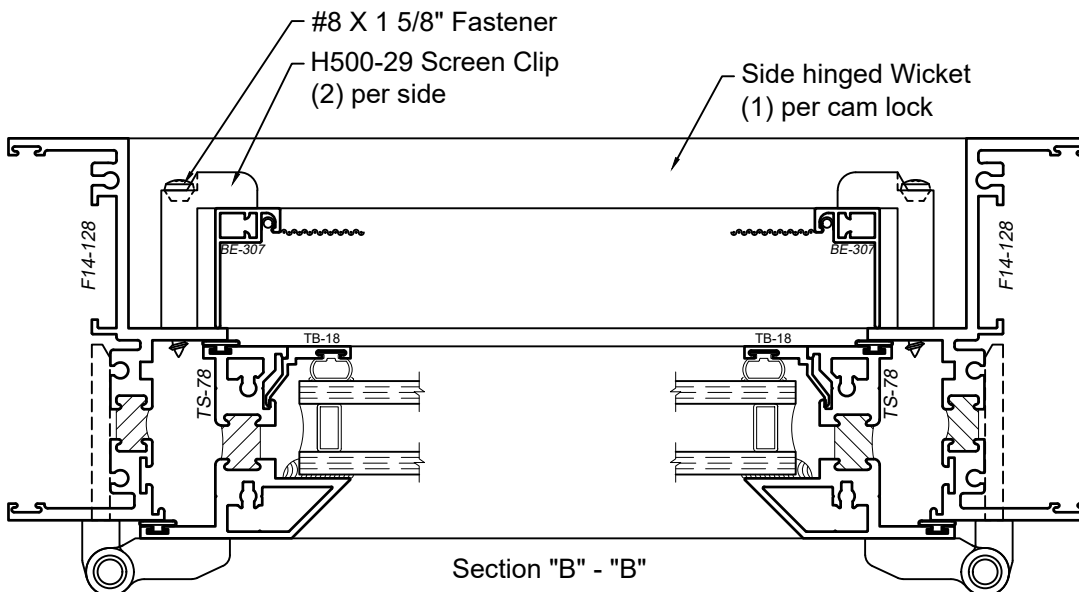
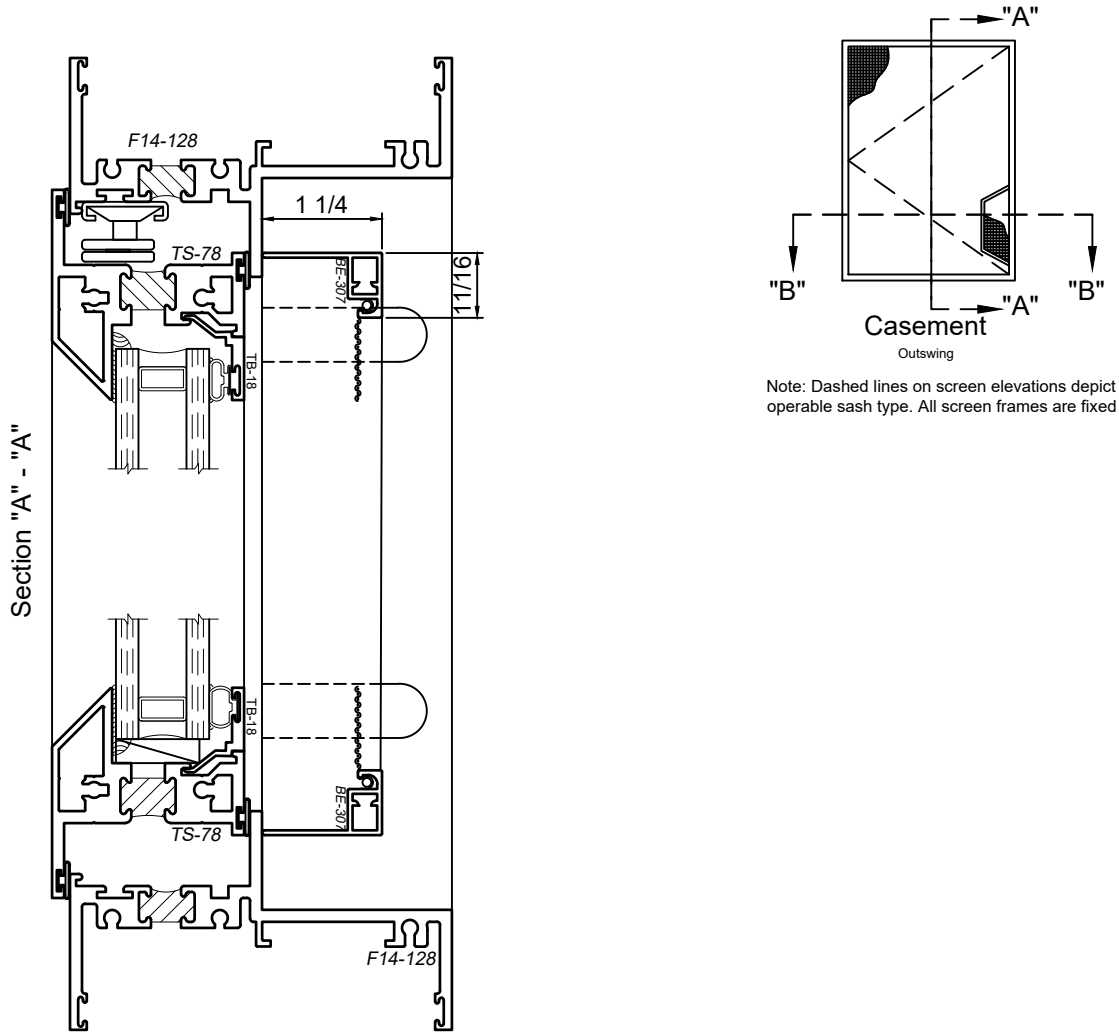
SCALE 6"=1'-0"

1450S Series 4" Thermal Fixed, 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.



SCALE 6"=1'-0"

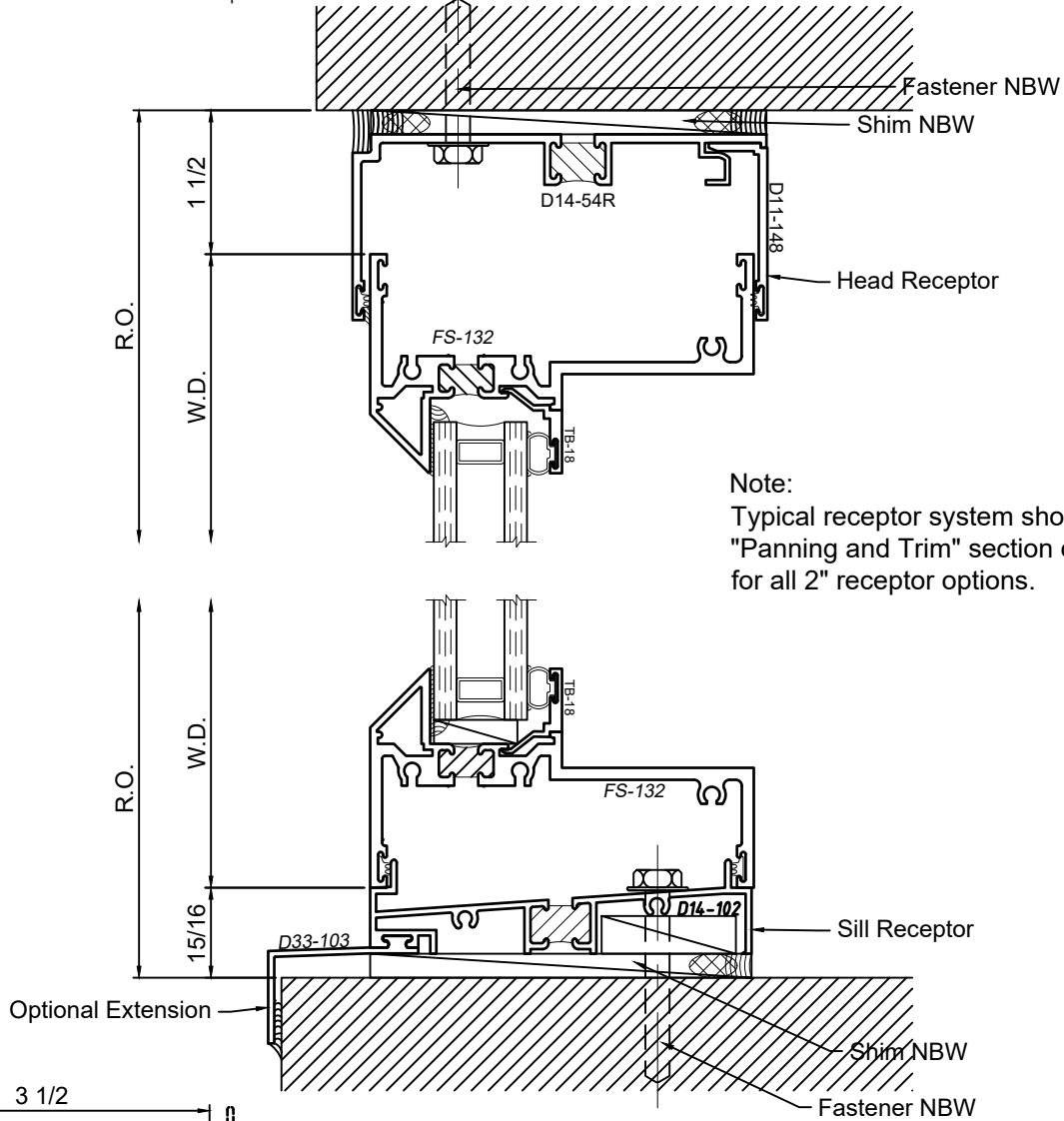
1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Trim - Receptor Installation



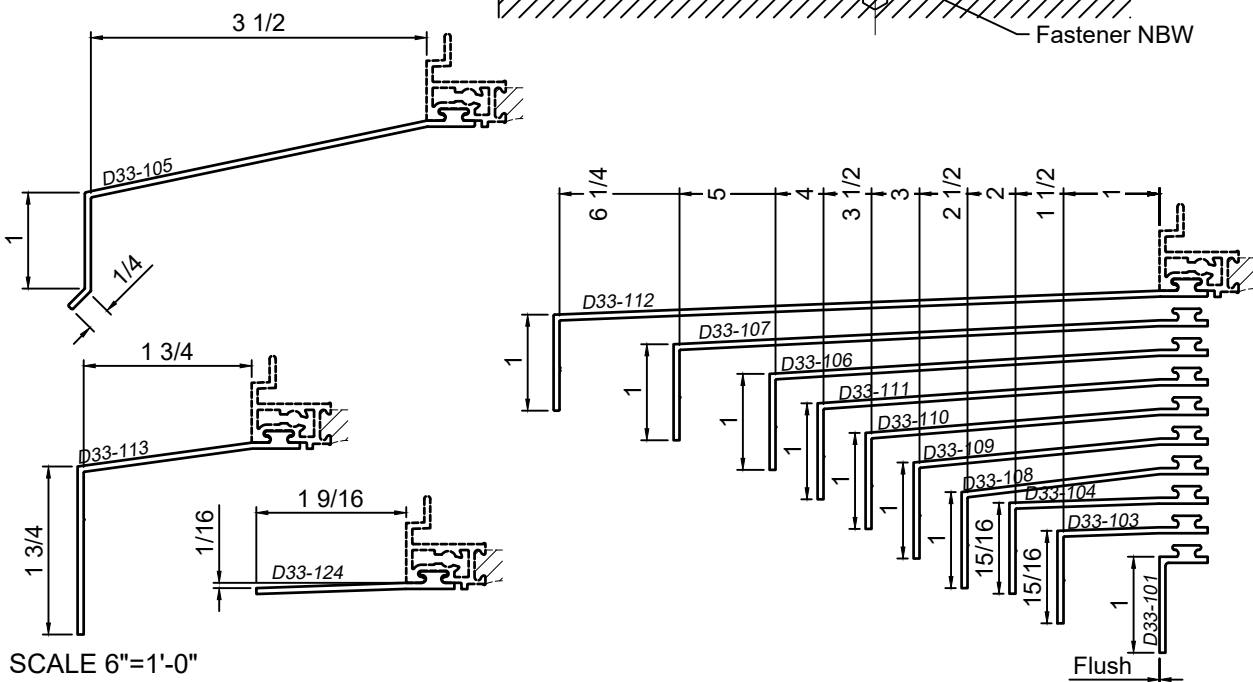
Note: See Winco Installation Instructions for a detailed description of installation notes and procedures.

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Note:
Typical receptor system shown. Refer to "Panning and Trim" section of detail binder for all 2" receptor options.

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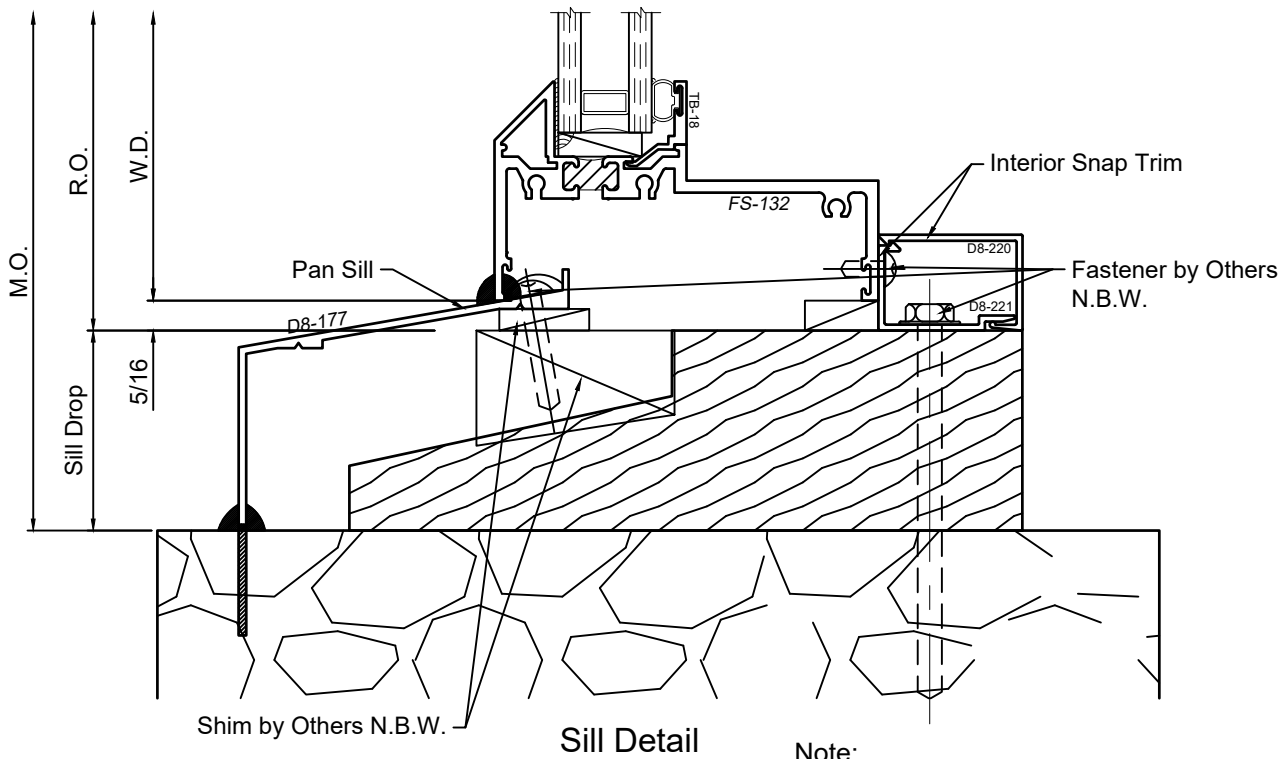
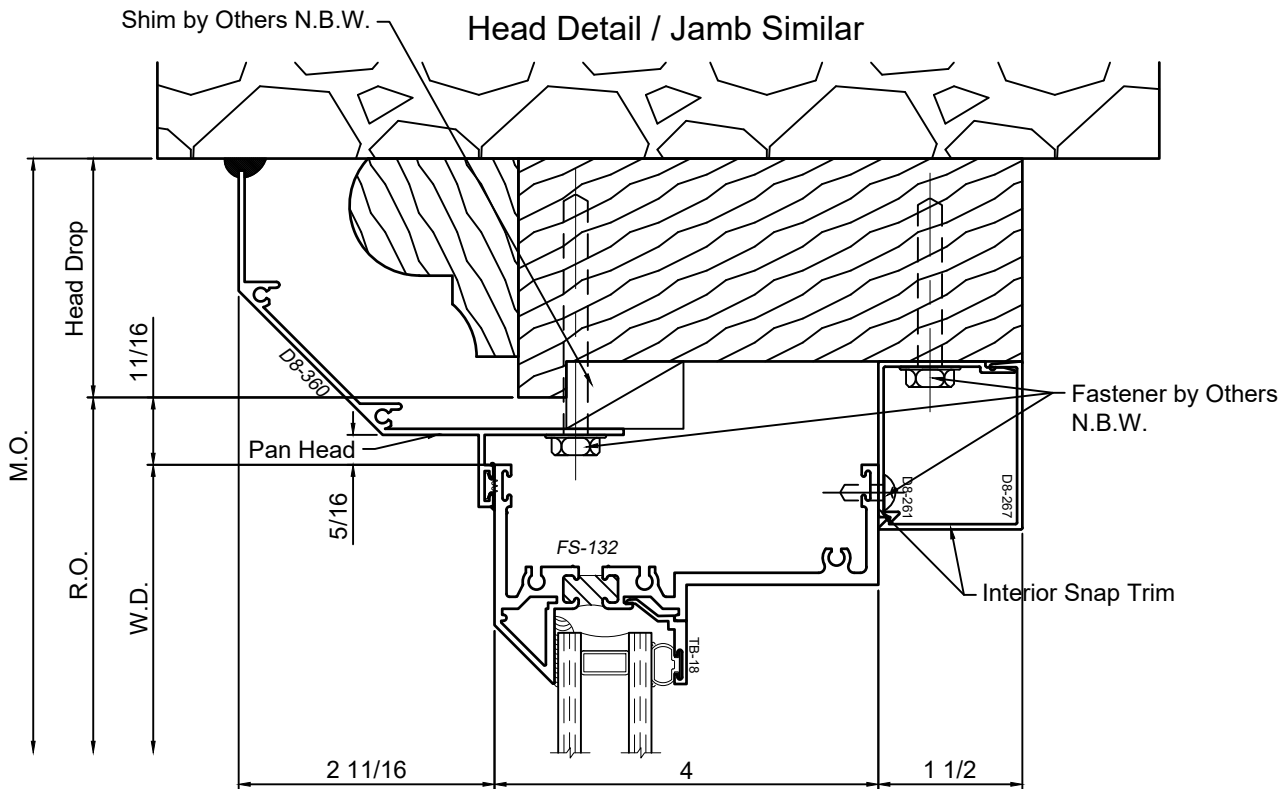
SCALE 6"=1'-0"

1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Trim - Panning Installation



Note: See Winco Installation Instructions for a detailed description of installation notes and procedures.



Note:
Typical panning system shown. Refer to "Panning and Trim" section of detail binder for all panning and interior snap trim options

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SCALE 6"=1'-0"

1450S Series 4" Thermal Fixed, Casement & Projected Windows

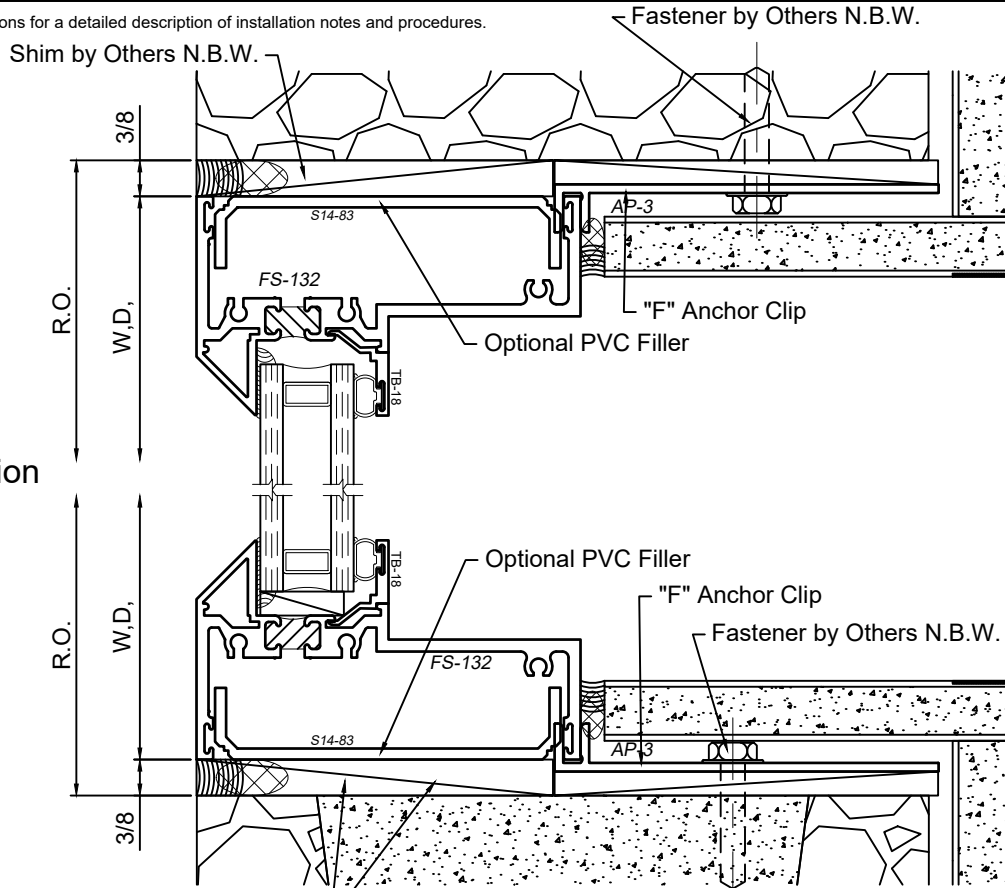
Product Details - Trim - F-Anchor and Snap Trim Installation



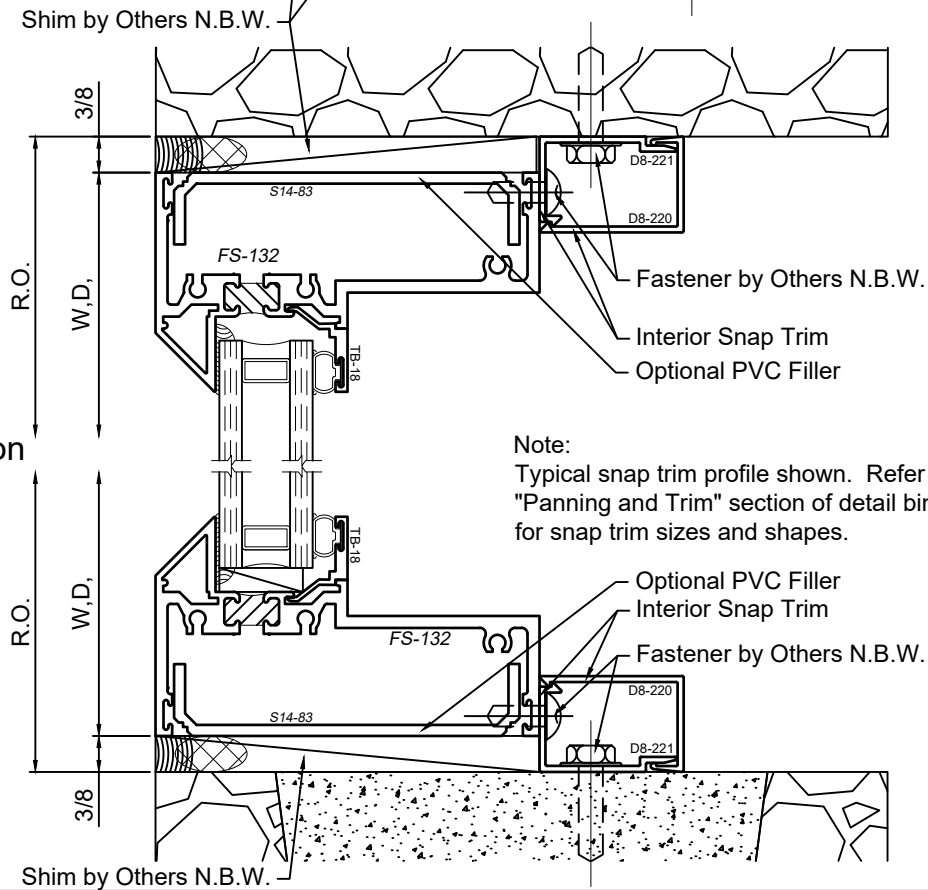
Note: See Winco Installation Instructions for a detailed description of installation notes and procedures.

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"F" Clip Installation



Snap Trim Installation

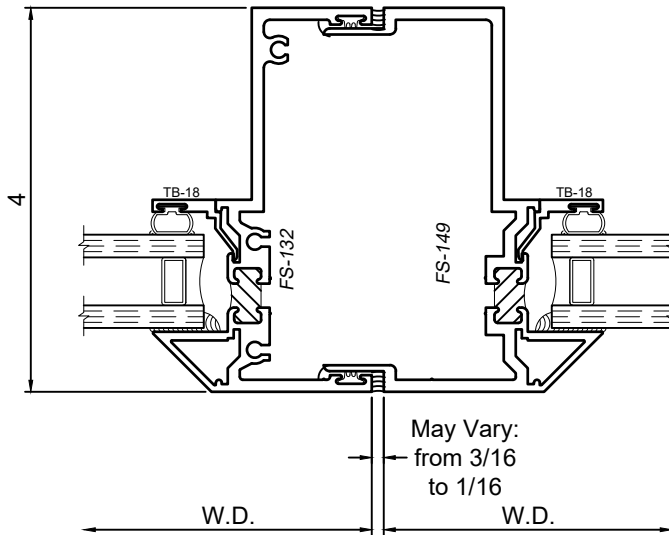


Note:
Typical snap trim profile shown. Refer to "Panning and Trim" section of detail binder for snap trim sizes and shapes.

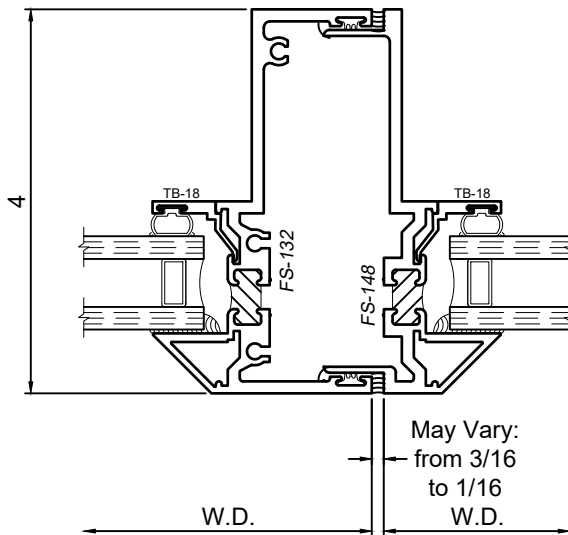
SCALE 6"=1'-0"

Shim by Others N.B.W.

Typical Side Stack Framing



Narrow Sightline Side Stack Framing

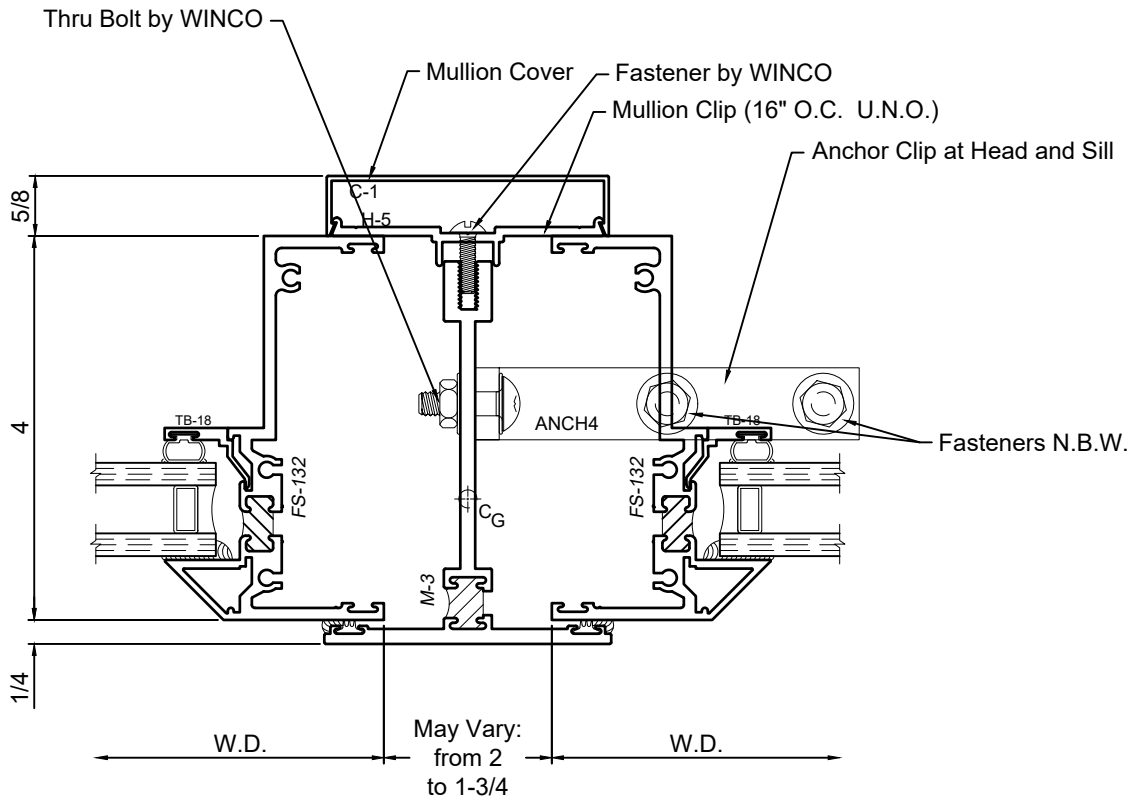


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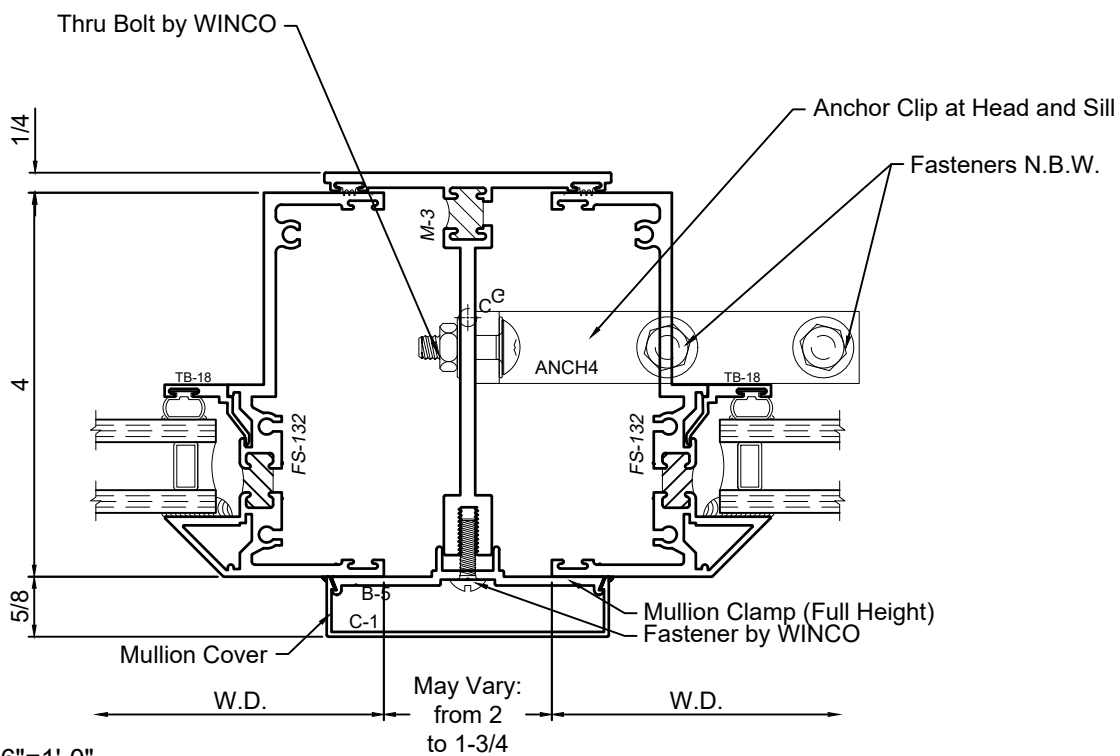
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SCALE 6"=1'-0"

M-3 Mullion set from Building Interior



M-3 Mullion set from Building Exterior

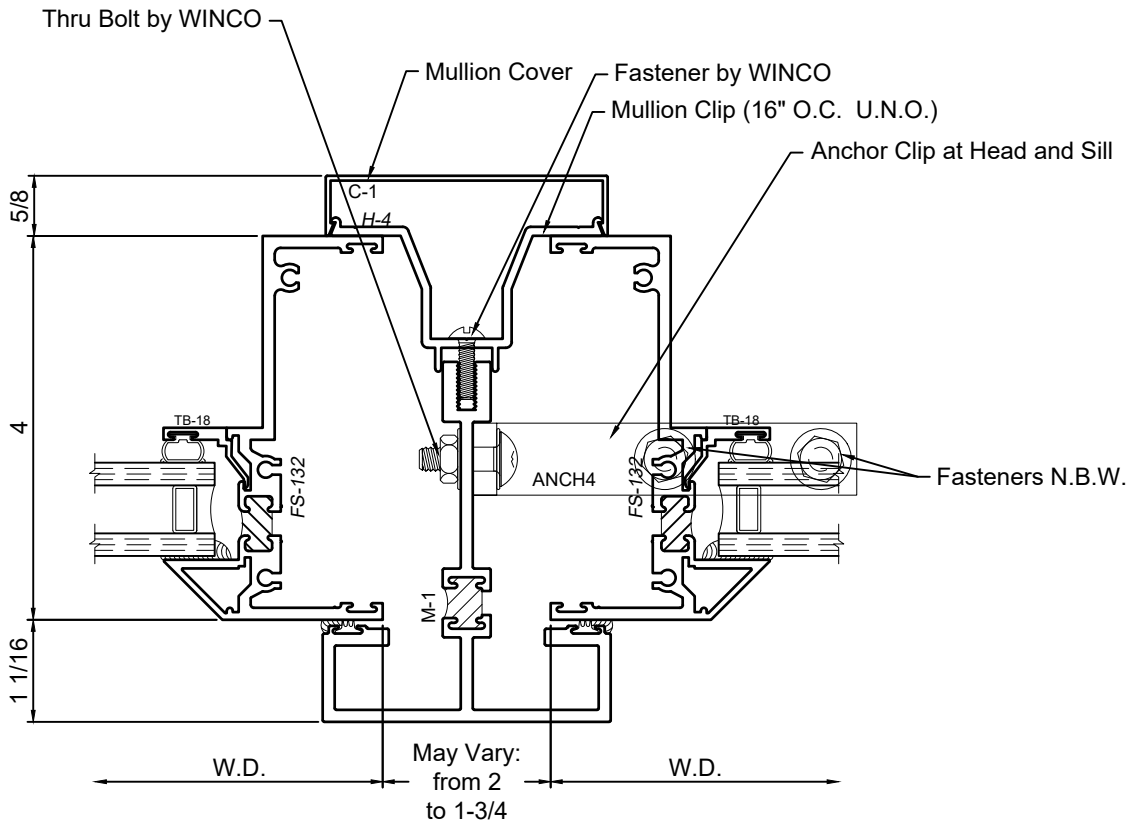


SCALE 6"=1'-0"

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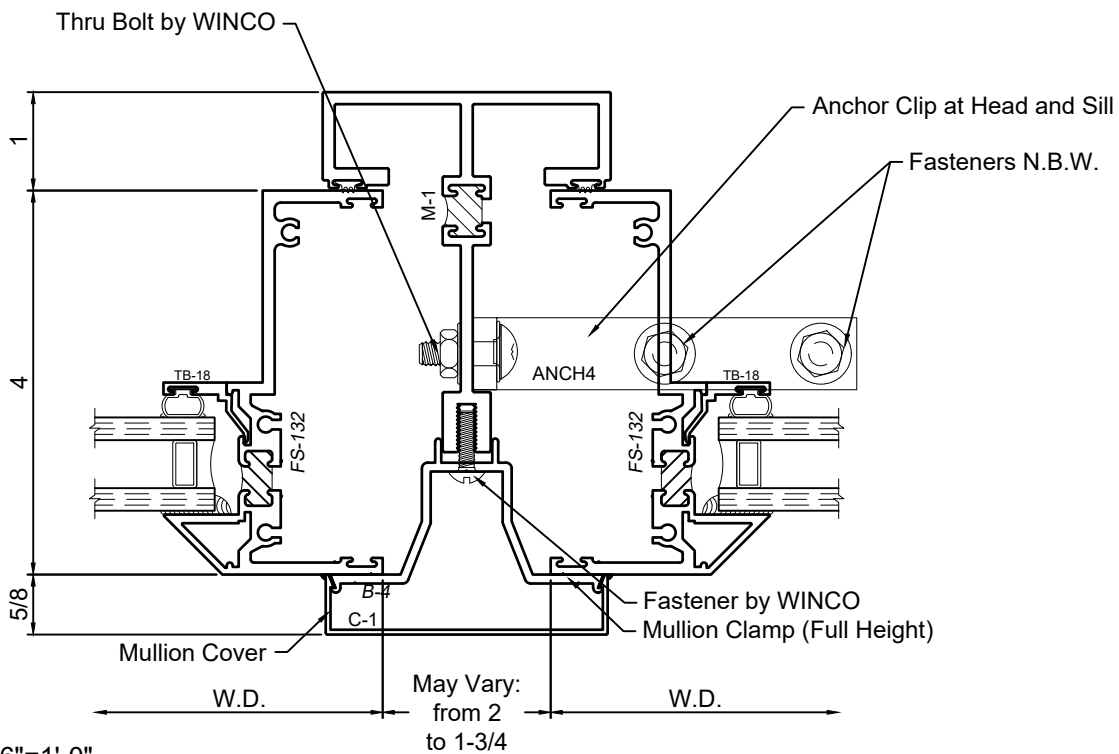
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M-1 Mullion set from Building Interior



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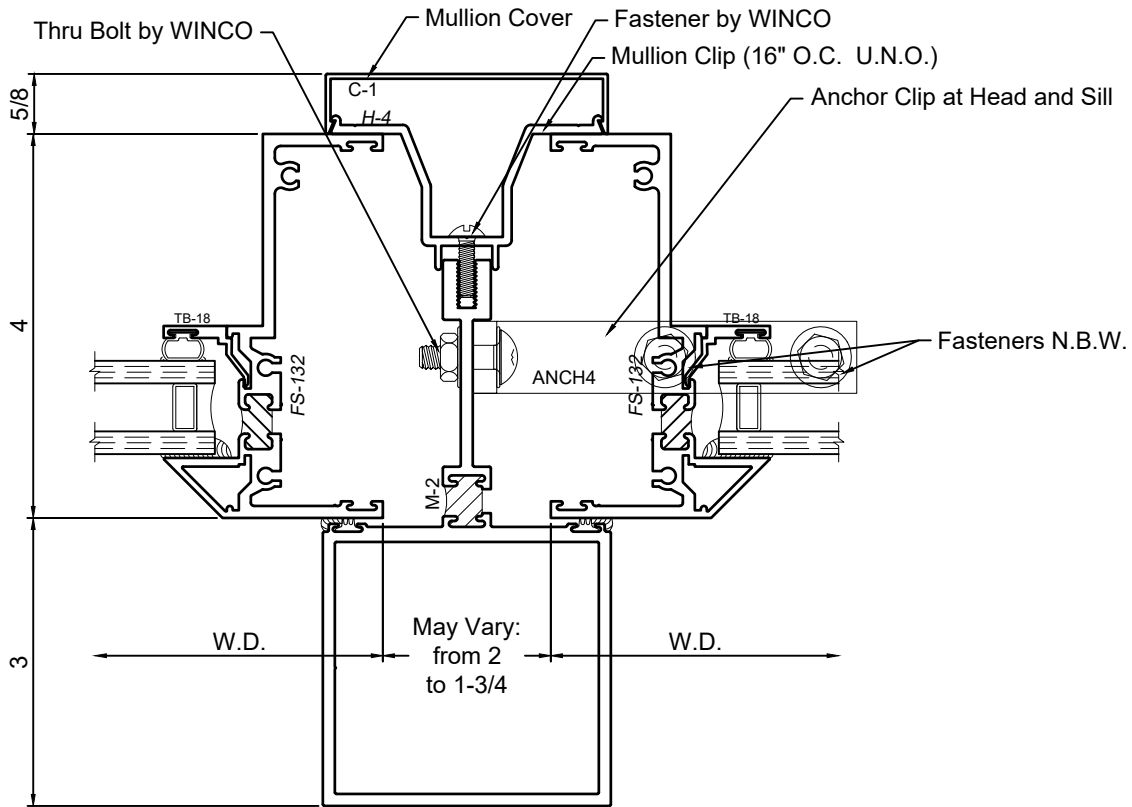
M-1 Mullion set from Building Exterior



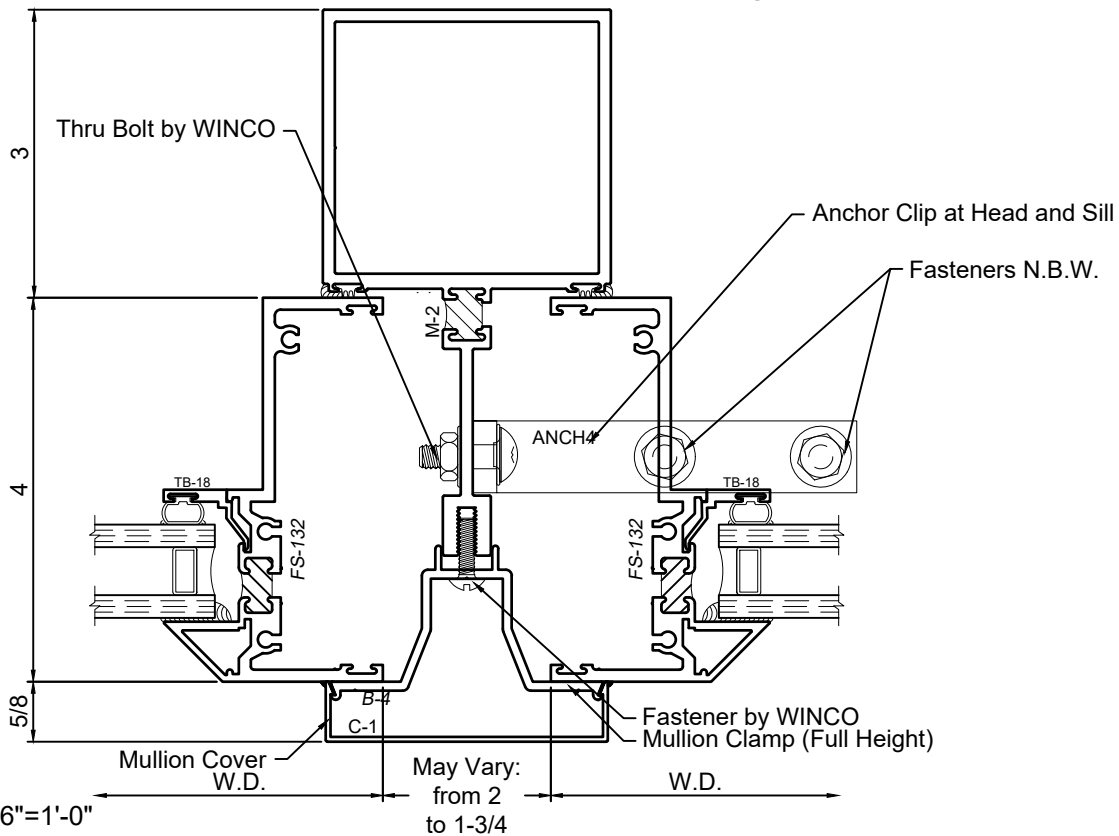
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SCALE 6"=1'-0"

M-2 Mullion set from Building Interior



M-2 Mullion set from Building Exterior



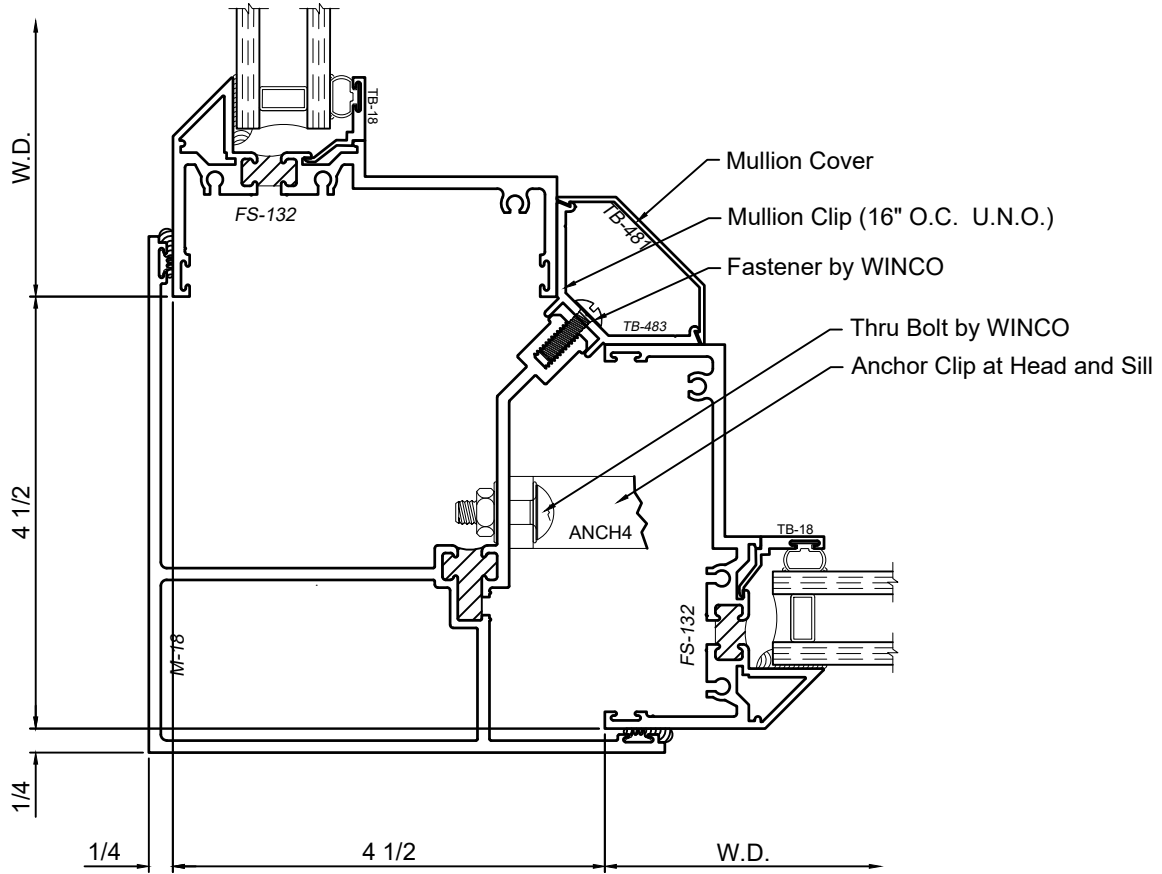
SCALE 6"=1'-0"

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1450S Series 4" Thermal Fixed, Casement & Projected Windows

Product Details - Trim - 90° Corner Mullion



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SCALE 6"=1'-0"

1450S Series 4" Thermal Fixed, Casement & Projected Windows

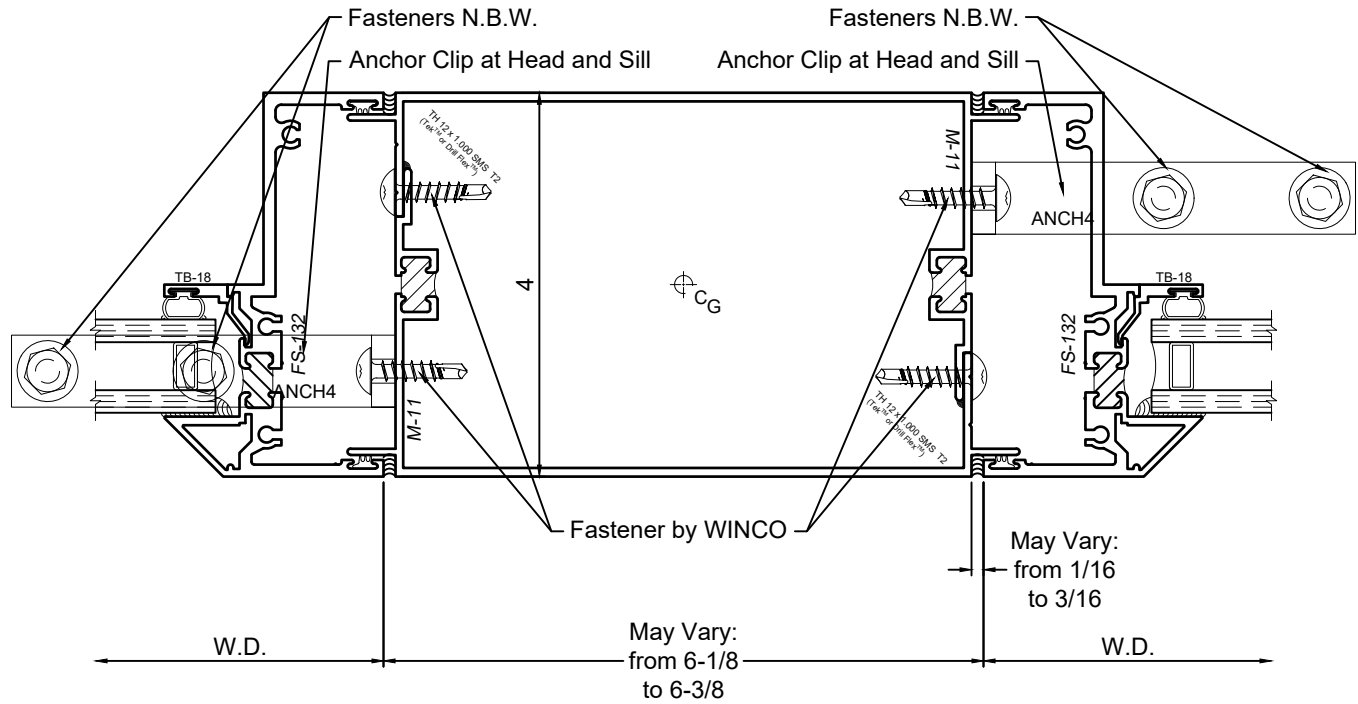
Product Details - Trim - Mullion (Special Application)



M-11 Mullion

Recommended usage only with Jamb Receptor for installation clearances

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SCALE 6"=1'-0"

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