



A breath of fresh air

Solar Innovations offers a vast selection of custom window systems that differ in both form and function. Whether you are replacing a window in an existing building or in need of a particular type of window for your new greenhouse, we offer the exact window you specify, constructed with the finest materials. All of our window systems can be ordered with a thermal break, to help regulate the temperature difference between indoors and outdoors. Several of our systems can be outfitted with high performance sills to keep water out during severe weather events and can include impact-rated glass to defend against wind-bourne projectiles. Often found in restaurants and stadiums, several of our systems are perfect for large openings. Constructed of durable aluminum, our windows will not rust, rot, warp, or need constant maintenance. As an added benefit, our window systems are designed to match the sightlines and finishes of our doors and structures.

FEATURES

OPERATION:

- Fixed, Awning, Casement, Tilt-Turn, Pivot, Hopper, Folding, Sliding, and Stacking
- Inswing and Outswing
- Endless configurations possible

FRAMING:

- Aluminum
- Frame widths: 3 $\frac{3}{8}$ ", 2 $\frac{7}{16}$ ", and 1 $\frac{5}{8}$ " (G3 only)
- Up to 4' x 8' panels and larger
- High performance sills available on select systems
- LEED friendly system including recycled content

HARDWARE:

- Multiple handle styles and finishes
- Zero-maintenance extruded aluminum hinges with stainless steel pins
- Custom manufactured pulls and locks

GLAZING:

- Designed to accommodate almost any glass infill from 1" to 1 $\frac{3}{8}$ "

OPTIONS

PERFORMANCE:

- Air, water, structural, impact, acoustical and thermally tested options

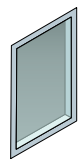
FINISHES:

- Standard AAMA 2603 paint finishes: Black, White, Sandstone, Natural Clay, Bronze and Hartford Green
- AAMA 611 Class I anodized finishes: Clear, Dark Bronze
- Standard AAMA 2605 powder coat finishes: Black, White, Sandstone, Natural Clay, Bronze and Hartford Green
- Premium AAMA powder coat finishes
- Custom finishes:
 - Fluoropolymer (50% or 70%): AAMA 2605
 - Faux wood (Decoral)
 - Dual finish — interior/exterior applications

OPTIONS:

- Wood veneer or metal cladding
- Framed and cartridge retractable screen options
- Mullions, decorative muntins, simulated divided lites (SDLs), interior and exterior grids

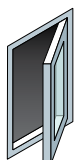
CONFIGURATIONS



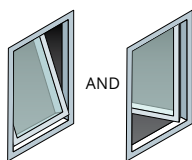
Fixed



Awning



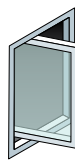
Casement



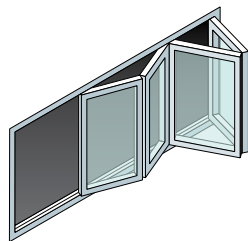
Tilt-Turn



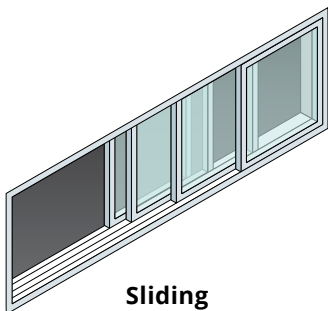
Hopper



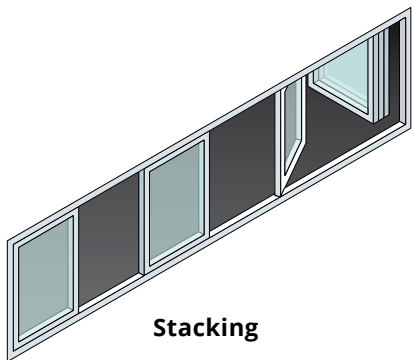
Pivot



Folding

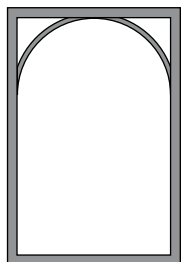


Sliding

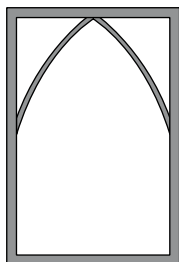


Stacking

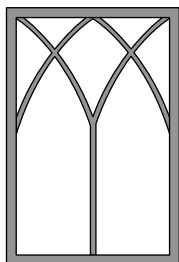
GRID OPTIONS



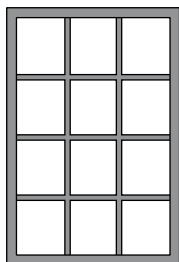
Arched Grid



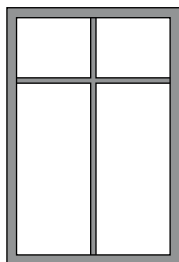
Gothic Grid



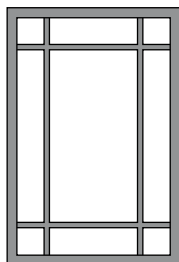
Double Gothic Grid



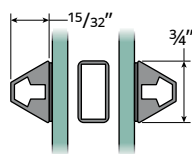
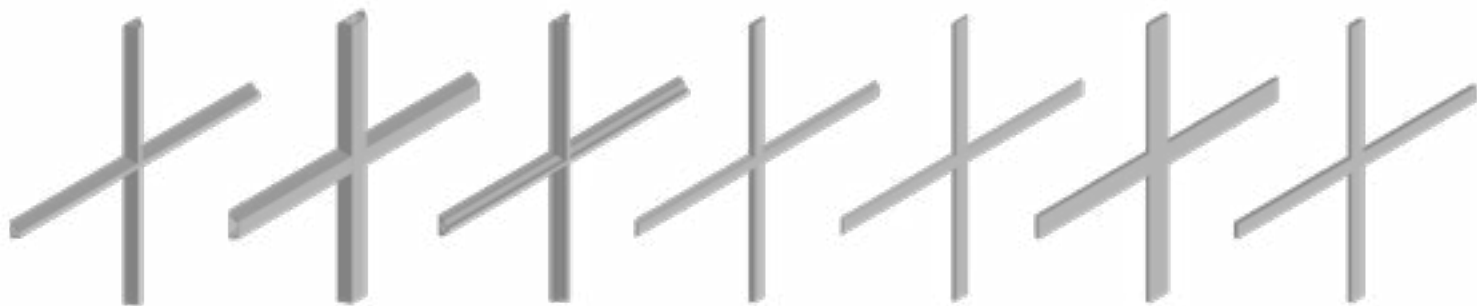
Traditional Grid



Cross Grid

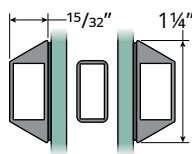


English Grid



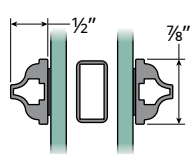
Traditional with SDL

2



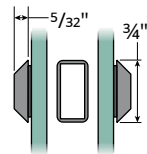
Wide Traditional with SDL

2



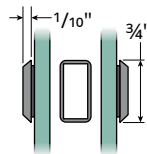
Ogee with SDL

2



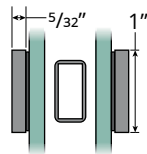
Low Profile with SDL

2



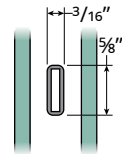
Thin Low Profile with SDL

1 2 3



Simulated Steel with SDL

1 2



Interior Muntin in Insulated Glass

1 2 3


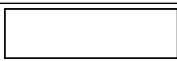




1 Fixed, Awning, Casement, Tilt-Turn and Hopper windows

2 Pivot, Folding, Stacking windows

3 Sliding windows

FINISH OPTIONS

Paint AAMA 2603 (5 year warranty). Finishes available while in stock.

					
SI Black	SI White	SI Sandstone	SI Natural Clay	SI Bronze	SI Hartford Green

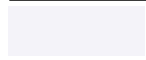
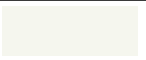
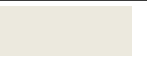







Anodized Additional cost

	
Class I Clear Anodized	Dark Bronze Anodized

Powder Coat Solids STANDARD - AAMA 2605 (10 year; up to 20 year warranty). Scratch & fade resistant; contains no VOCs.*


					
Black FRSL 11618	White FRSL 83247	Sandstone FRSL 46647	Natural Clay FRSL 47591	Bronze FRML 97138	Hartford Green FRSL 32872

Powder Coat Solids PREMIUM - AAMA 2605 (10 year; up to 20 year warranty). Scratch & fade resistant; contains no VOCs.*

									
Apollo White FRSL 82908	Bone White FRSL 82909	Ivory FRSL 46646	Seawolf FRSL 46645	Fashion Gray FRSL 74652	Colonial Gray FRSL 74653	Charcoal FRSL 74654	Antique Bronze FRSL 46648	Burgundy FRSL 62496	Military Light Blue FRSL 21709

Visit <https://www.ifscoatings.com/content/assets/Uploads/brochures/IFS-Architectural-Digital-Color-Card.pdf> for additional metallic and anodic finishes.

















Metal Clad STANDARD* (EXTERIOR ONLY)

	
Copper	#4 Polished Stainless Steel

Metal Clad PREMIUM*

				
Rheinzink Bright Rolled**	Rheinzink Blue Gray**	Rheinzink Graphite Gray**	Brass	Bronze

Decoral Finishes (Powder Coat)*

	Aged Dark Oak		Aged Light Oak		American Douglas		American Maple		Cherry		Cherry w/Flame		Colony Maple		Dark Walnut
	European Cherry		Golden Oak		Knotty Pine		National Walnut		Oak		Oregon Douglas		Table Cherry		Teak

Wood Veneering (Unfinished) STANDARD*

			
Douglas Fir	White Oak	Walnut	Mahogany

Wood Veneering (Unfinished) PREMIUM*

		
White Pine	Pecan Pine	Cherry

Note: wood veneering is for interior applications only. Available on a limited basis due to vendor supply.

Note: Depending upon color selection, additional charges and increased lead times may apply. Extended warranties and service plans are available for an additional charge. Examples are shown as accurate as photography and printing processes allow. Final finish selection should be made from a physical sample; contact Solar Innovations® for samples. Product and finish options are subject to vendor availability. Solar Innovations® reserves the right to discontinue any option at any time without notice. Additional options, including custom color match, are available; contact Solar Innovations® for details.



GLASS SPECIFICATIONS

	Overall Unit Thickness	U-Value	R-Value	Solar Heat Gain Coefficient	Visible Light Transmission	Reflectance Out	Reflectance In	UV Transmittance
MONOLITHIC								
Clear	¼"	1.02	0.91	0.82	88%	8%	8%	62%
DOUBLE GLAZED Outside Lite/Inside Lite								
Clear/Clear	1"	0.46	2.17	0.78	82%	15%	15%	58%
180/Clear	1"	0.26	3.85	0.64	79%	15%	15%	29%
272/Clear	1"	0.25	4.00	0.41	72%	11%	12%	16%
366/Clear	1"	0.24	4.17	0.27	65%	11%	12%	5%
340/Clear	1"	0.25	4.00	0.18	39%	11%	13%	2%
180/i89	1"	0.21	4.76	0.62	77%	15%	14%	27%
272/i89	1"	0.20	5.00	0.41	70%	11%	11%	16%
366/i89	1"	0.20	5.00	0.27	63%	11%	11%	5%
340/i89	1"	0.20	5.00	0.17	38%	11%	12%	2%
Gray/Clear	1"	0.45	2.22	0.60	57%	9%	13%	32%
Gray/180	1"	0.26	3.85	0.49	53%	9%	14%	17%
Gray/272	1"	0.25	4.00	0.38	50%	8%	9%	10%
Bronze/Clear	1"	0.45	2.22	0.62	61%	10%	13%	31%
Bronze/180	1"	0.26	3.85	0.61	59%	10%	14%	17%
Bronze/272	1"	0.25	4.00	0.39	54%	8%	10%	10%
SolarBan 60/Clear	1"	0.24	-	0.39	70%	11%	12%	20%
SolarBan 70/Clear	1"	0.24	-	0.27	64%	14%	13%	6%
SolarBan 90/Clear	1"	0.24	-	0.23	51%	12%	19%	8%
TRIPLE GLAZED Outside Lite/Middle Lite/Inside Lite								
180/Clear/180	1½"	0.15	6.67	0.56	70%	20%	20%	13%
272/Clear/180	1½"	0.15	6.67	0.37	63%	15%	18%	8%
366/Clear/180	1½"	0.15	6.67	0.25	57%	14%	18%	2%
340/Clear/180	1½"	0.15	6.67	0.16	34%	13%	19%	1%

FIXED WINDOW SYSTEMS



Product Overview

A Fixed Window system is non-operable and used in situations where daylight is desired without the need for ventilation. They are used as part of a building envelope or in conjunction with other types of windows in a mulled window system or part of a glazed structure. For mulled or structure applications a Projected Fixed Window is used. For out-of-system, or standalone applications, G2 International Windows are recommended. For extreme weather regions, an impact version of this window is available with laminated glass. In instances when a window system is required for both a structure, or mulled application, and an out-of-system unit, G2 International Windows are recommended so sightlines are consistent.

Features

- Frame depth: 2⁷/₃₂" Projected; 2⁵/₈" G2 International
- Thermally broken utilizing thermal fill & debridge
- Minimum panel size: 1' x 1' fixed; smaller panels may be available upon engineering approval
- Maximum panel size up to 4' x 6' depending on hardware limitations



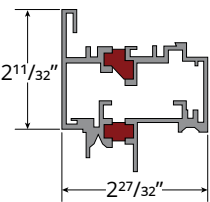
G2 Fixed Air and Structure Impact Testing							
Panel Size	Air at 1.57 PSF	Air at 6.24 PSF	Water Awning & Casement	Water Fixed	Design Pressure	Uniform Load	Overload
36"W x 72"H	0.1 L/s/m²	0.1 L/s/m²	12.0 PSF Based on water column	15.0 PSF Based on water column	±65 PSF	±65 PSF	±97.5 PSF

Please Note:
Testing and performance results may vary depending upon sill, size, and hardware selections. Please be sure to visit our website at www.solarinnovations.com or contact your Solar Innovations® representative for additional product information.

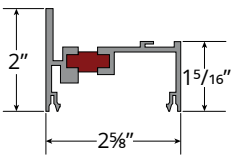


DETAILS

Frame

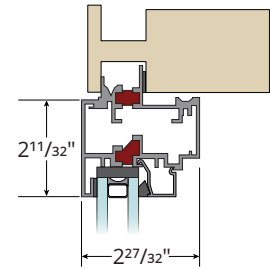


Projected

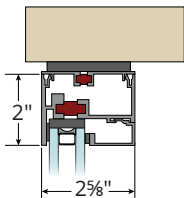


G2 International

Head & Sill

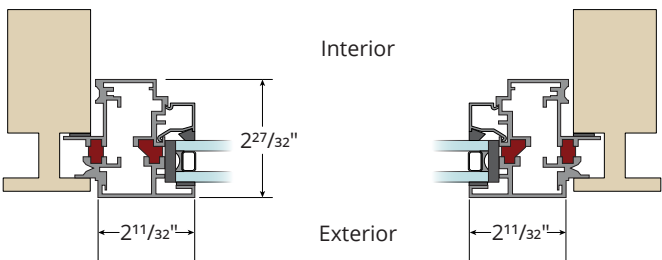


Exterior Interior

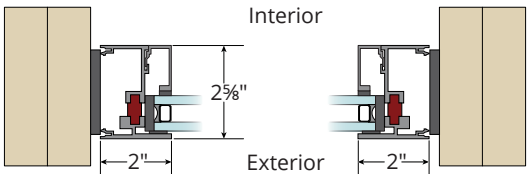


Exterior Interior

Jamb



Projected



G2 International

AWNING WINDOW SYSTEMS



Product Overview

An Awning Window system is hinged at the top and operates with a crank handle that projects the bottom of the window outwards, giving the appearance of an awning. They are a good solution for applications when air circulation is desired but security is a concern, as they do not fully open. They also have an added benefit of partially shielding the indoors from a light shower that may pass through — allowing a minimal amount of water to enter when opened. For mulled or structure applications a Projected Awning Window is used. For out-of-system, or standalone applications, G2 International Awning Windows are recommended. For extreme weather regions, an impact version of this window is available with laminated glass. In instances when a window system is required for both a structure, or mulled application, and an out-of-system unit, G2 International Awning Windows are recommended so sightlines are consistent. Screens can be installed on the interior side of the unit to allow the fresh air in while keeping insects out. These window systems are very popular in greenhouses, but should not be confused with eave vents, which often span multiple bays and are operated with motors.

Features

- Sash depth: 2⁹/₃₂" Projected; 2⁵/₈" G2 International
- Thermally broken utilizing thermal fill & debridge
- Minimum panel size: 21"w x 20"h; smaller panels may be available upon engineering approval
- Maximum panel size up to 4' x 6' depending on hardware limitations

HARDWARE

Handles



Black Aluminum

Folded Handle



Black White Aluminum

Split Arm Operator

Locks



Black White Bronze Aluminum

Standard Single & Multi Point Cam Locks
Dependent on size of the window



Black White Aluminum

Surface Mount Cam Lock

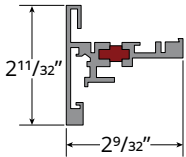
Additional handle styles and finishes available upon request. Non-standard handle options may increase lead times and/or cost. All standard finishes shown are paint.

Please Note: All hardware is subject to vendor availability. Custom finishes may be available upon request at additional lead time and/or cost. All standard finishes shown are paint. Solar Innovations® reserves the right to discontinue any hardware option at any time. Please be sure to visit our website for additional product information: www.solarinnovations.com

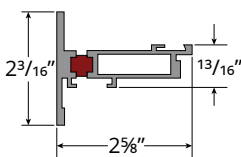
DETAILS

Frame

Sash

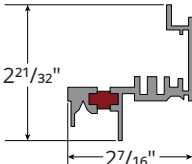


Projected

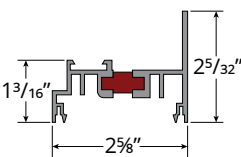


G2 International

Frame

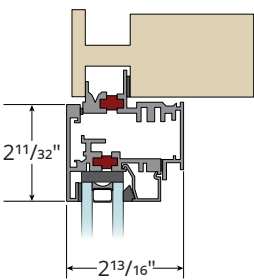


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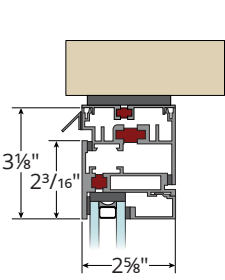


G2 International

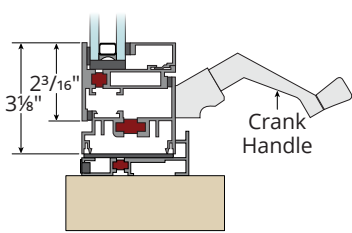
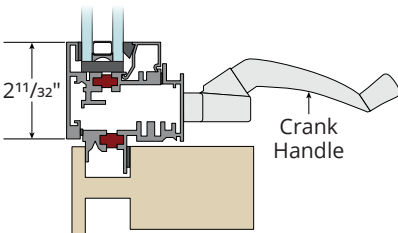
Head & Sill



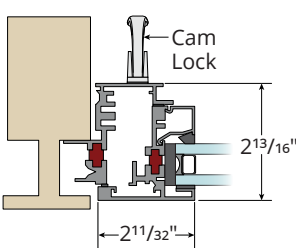
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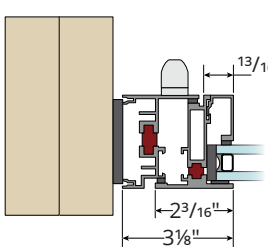
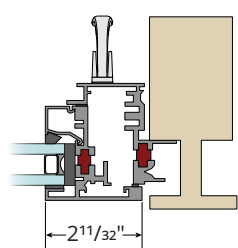
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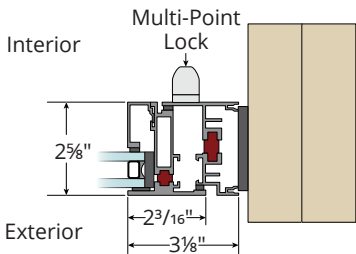
Jamb



Projected



G2 International



CASEMENT WINDOW SYSTEMS



Product Overview

A Casement Window system is hinged to either jamb and operates with a crank to open and close the window much like a traditional door functions. They can be opened as wide as 90 degrees to the window frame and allows excellent air flow. For mulled or structure applications a Projected Casement Window is used. For out-of-system, or standalone applications, G2 International Casement Windows are recommended. In instances when a window system is required for both a structure, or mulled application, and an out-of-system unit, G2 International Casement Windows are recommended so sightlines are consistent. For extreme weather regions, an impact version of this window is available with laminated glass. Screens can be installed on the interior side of the unit to allow the fresh air in while keeping insects out.

Features

- Sash depth: 2⁹/₃₂" Projected; 2⁵/₈" G2 International
- Thermally broken utilizing thermal fill & debridge
- Minimum panel size: 21"w x 20"h; smaller panels may be available upon engineering approval
- Maximum panel size up to 3' x 6' depending on hardware limitations

HARDWARE

Handles



Black Aluminum

Folded Handle



Black White Aluminum

Crank Dyad Operator

Locks



Black White Bronze Aluminum

Standard Single & Multi Point Cam Locks

Dependent on size of the window



Black White Aluminum

Surface Mount Cam Lock

Additional handle styles and finishes available upon request. Non-standard handle options may increase lead times and/or cost. All standard finishes shown are paint.

Hinges



Four Bar Egress Hinge

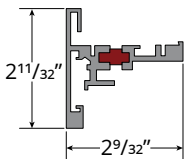
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DETAILS

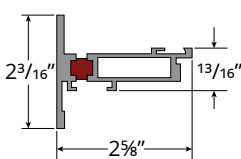
Frame

Sash

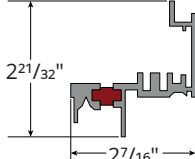
Frame



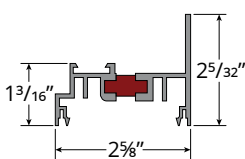
Projected



G2 International



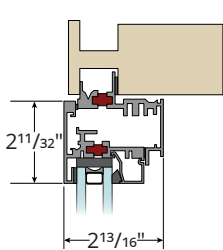
Projected



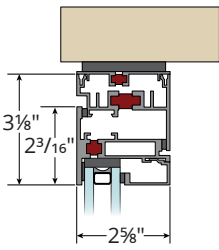
G2 International

Head & Sill

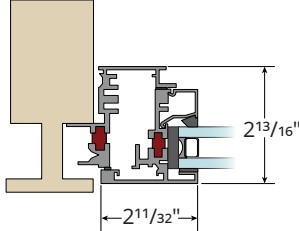
Jamb



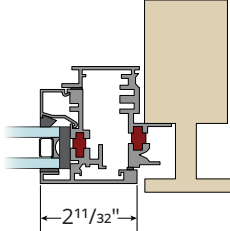
Exterior Interior



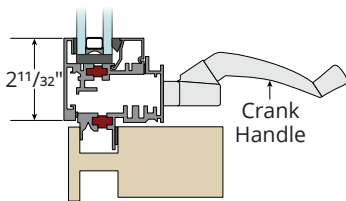
Exterior Interior



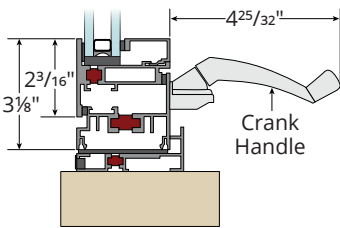
Interior



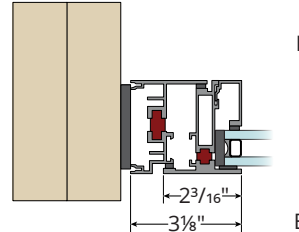
Exterior



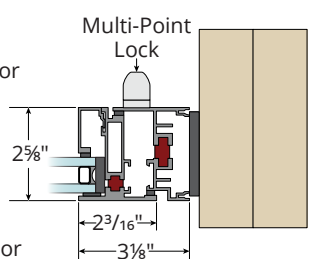
Projected



G2 International



Interior



Exterior

TILT-TURN WINDOW SYSTEMS



Product Overview

Popular all across Europe, Tilt-Turn Windows exhibit dual functionality and are extremely versatile. When the handle is turned 90 degrees, the window tilts toward the user like a hopper window. If turned an additional 90 degrees the window will swing towards the user like an inswing Casement Window. They can be installed as a standalone unit or as part of a Solar Innovations glazed structure. Only one handle style is available for this unit. For extreme weather regions, an impact version of this window is available with laminated glass. Screens can be installed on the exterior side of the unit to allow the fresh air in while keeping insects out.

Features

- Sash depth: 2 $\frac{5}{8}$ "
- Thermally broken utilizing thermal fill & debridge
- Minimum panel size: 21"w x 30"h; smaller panels may be available upon engineering approval
- Maximum panel size up to 4' x 6' depending on hardware limitations

HARDWARE

Locking Handle



Black White Aluminum

Prima Handle

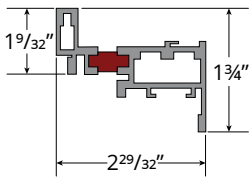
Additional handle styles and finishes available upon request. Non-standard handle options may increase lead times and/or cost. All standard finishes shown are paint.

Please Note: All hardware is subject to vendor availability. Custom finishes may be available upon request at additional lead time and/or cost. All standard finishes shown are paint. Solar Innovations® reserves the right to discontinue any hardware option at any time. Please be sure to visit our website for additional product information: www.solarinnovations.com

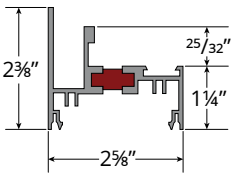


DETAILS

Frame

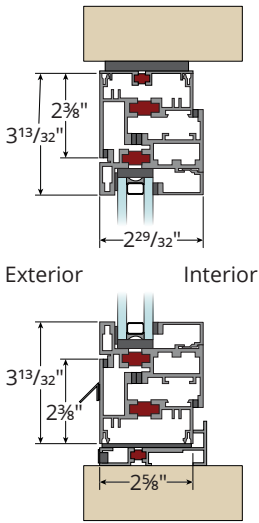


Sash

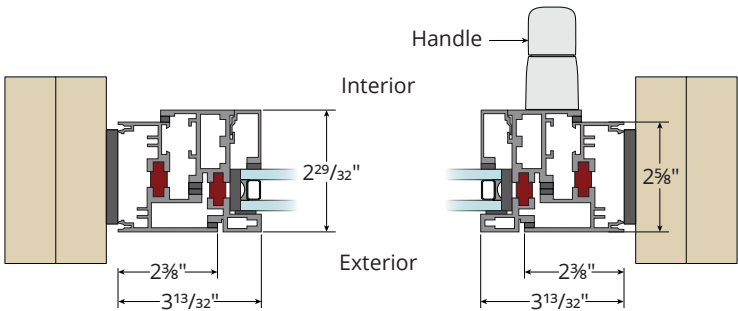


Frame

Head & Sill



Jamb



HOPPER WINDOW SYSTEMS



Product Overview

A Hopper Window system is hinged at the bottom of the unit and tilts slightly toward the user when opened. They are a good choice when ventilation is desired but egress is not required. The handle operates with one 90 degree motion and locks the unit when closed. They are often used in situations where the window is positioned high on the wall, such as in a basement or in door transoms. They can be installed as a standalone unit or as part of a Solar Innovations glazed structure. For extreme weather regions, an impact version of this window is available with laminated glass. Screens can be installed on the exterior side of the unit to allow the fresh air in while keeping insects out.

Features

- Sash depth: 2 $\frac{5}{8}$ "
- Thermally broken utilizing thermal fill & debridge
- Minimum panel size: 15"w x 13"h; smaller panels may be available upon engineering approval
- Maximum panel size up to 4' x 6' depending on hardware limitations

HARDWARE

Handle

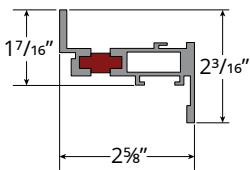


Black

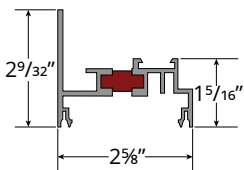
Standard Pole Operator
Cam Handle

DETAILS

Frame

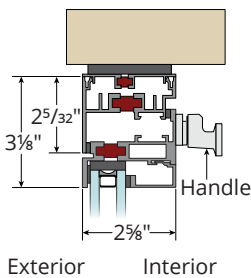


Sash

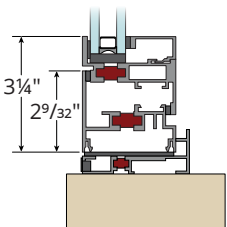


Frame

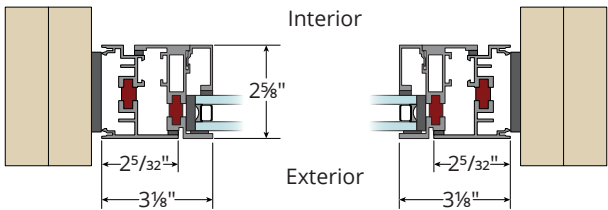
Head & Sill



Exterior Interior



Jamb



PIVOT WINDOW SYSTEMS



Product Overview

Pivot Window systems operate similar to a traditional door with the exception that they are not hinged at the jamb. Instead, they pivot at a point on the head and sill of the window frame. The pivot point is determined by the desired form and function of the window. The standard frame for this unit is our G2 system. Depending on the size of the unit, the thicker, G3 system, may be required. Due to the unique operation of this window, a screen cannot be provided as the window protrudes to both the inside and outside of the wall. Solar Innovations also offers this type of product as a door as well.

Features

- Inswing or outswing; left, right, or center pivot
- Thermally enhanced utilizing thermal strut
- Accommodates monolithic and insulated glazing infills from 3/16" to 1 9/16"
- Window limiters available
- Multiple hardware styles and finishes

HARDWARE

Locks



**Two Point
Locking
Handle
Non-Keyed**

Pulls



**Recessed
Pull**



**Low
Profile
Handle**

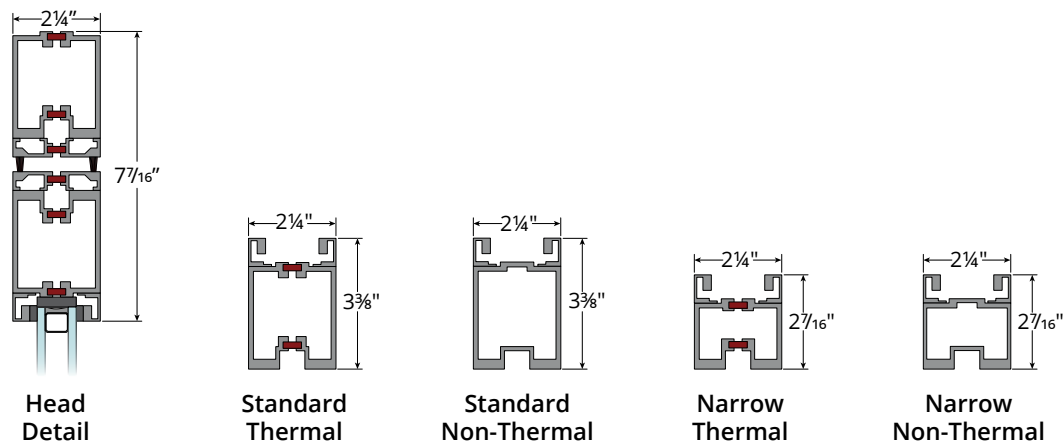
Pull Hardware, Hinge, and Lock Finish Options

☐ SI White ☐ SI Bronze ☐ Class I Clear Anodized ☐ Dark Bronze Anodized

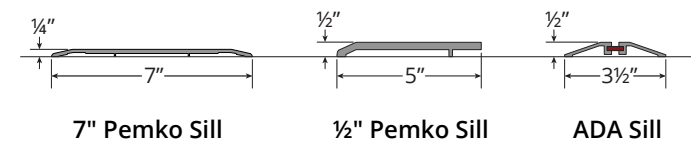
Custom color options are also available.

DETAILS

G2: Vertical & Horizontal Rails

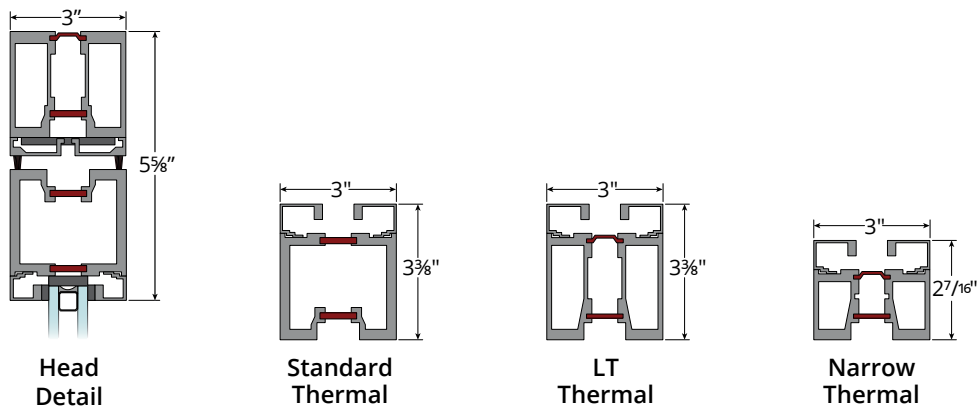


Sills

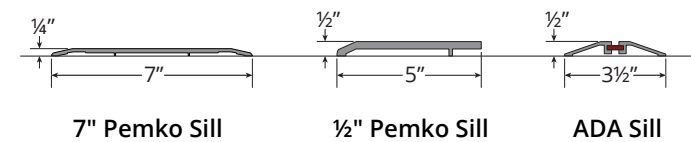


*Sill-less option also available

G3: Vertical & Horizontal Rails



Sills



*Sill-less option also available

FOLDING WINDOW SYSTEMS



Product Overview




Folding Window, or Bifold Window, systems operate in an accordion manner with each panel stacking next to each other. They are ideal for wide openings and can stack to the interior, exterior, or split the difference with a center-pivot option. The system can be configured to stack in one direction or split to each jamb. This system is available with or without a frame. The standard frame for this unit is our G2 system. Depending on the size of the unit, the thicker, G3 system, may be required. Various screen systems can be attached to this system to retain airflow while keeping insects out. Solar Innovations offers this type of product as a full-height Folding Glass Wall as well.

Features

- Top or bottom load
- In-fold or out-fold operation
- Frame widths: 3 $\frac{3}{8}$ ", 2 $\frac{7}{16}$ ", and 1 $\frac{5}{8}$ " (G3 only)
- Accommodates monolithic and insulated glazing infills from $\frac{3}{16}$ " to 1 $\frac{1}{2}$ "
- Wood veneer or metal cladding
- Decorative muntins, simulated divided lites (SDLs), interior and exterior grids

HARDWARE

Pulls




Recessed Pull
(In-Fold)

Extruded Hinge Pull
(Out-Fold)

Low Profile Handle





Hinges



Semi-Concealed Hinge

Surface Mount Hinge*

Locks



Two-Point Locking Handle

Two-Point Keyed Locking Handle**

Thumb Turn Lock

Standard Flush Bolt

Pull Hardware, Hinge, and Lock Finish Options

 SI White

 SI Bronze

 Class I Clear Anodized

 Dark Bronze Anodized

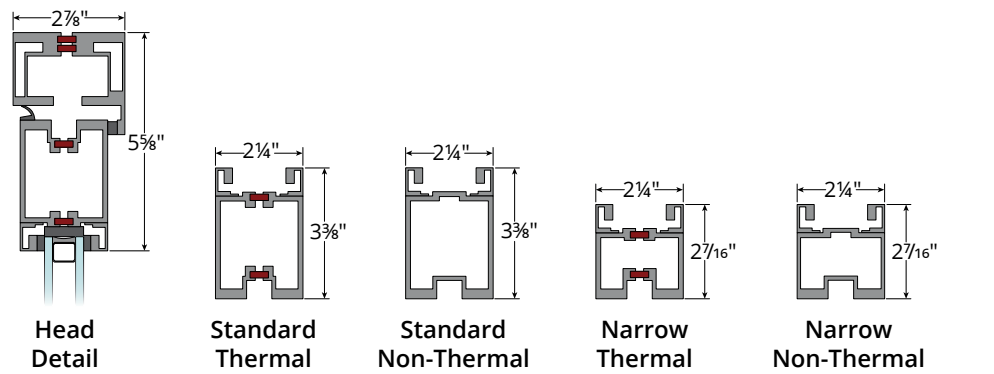
Custom color options are also available upon request.

* Segmented Radius only. ** Additional cost. Not compatible with Extra Narrow systems.

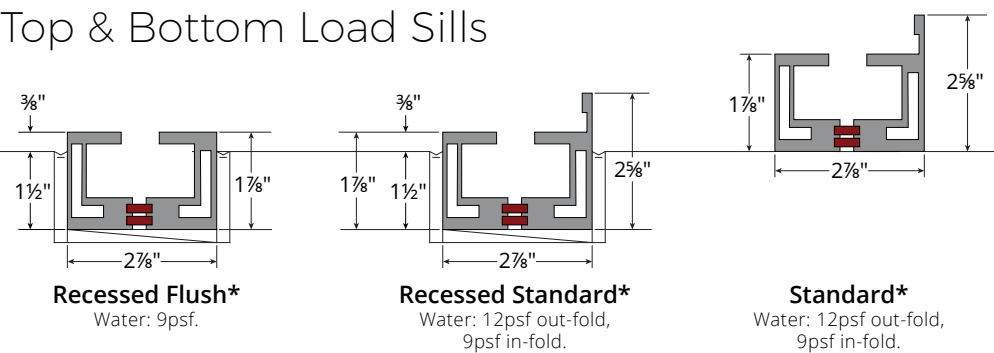
Folding Windows are similar to our Folding Glass Wall system in form and function. Please refer to our Folding Glass Wall Product Data Sheet for additional detail:
solarinnovations.com/wp-content/uploads/SI3000-Folding-Glass-Wall-Cut-Sheet.pdf

DETAILS

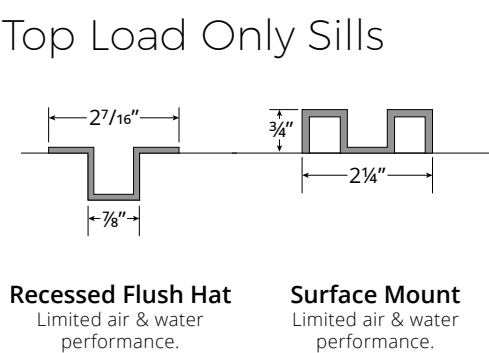
G2: Vertical & Horizontal Rails



Top & Bottom Load Sills

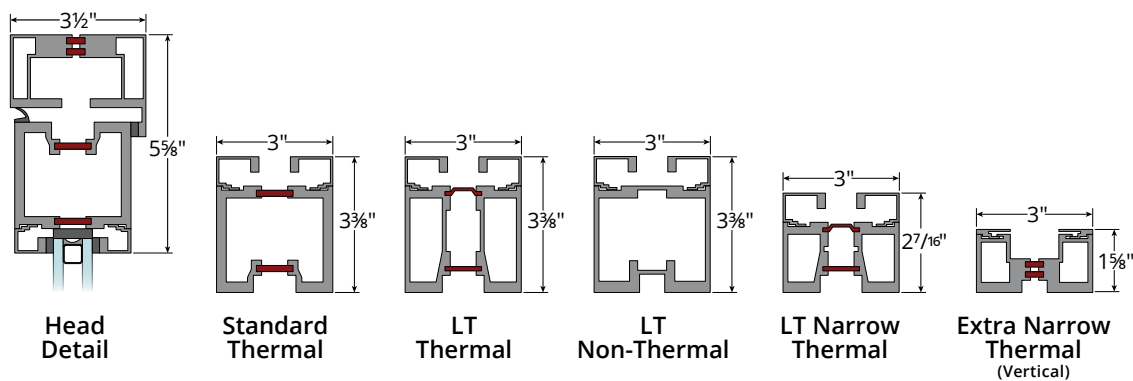


Top Load Only Sills

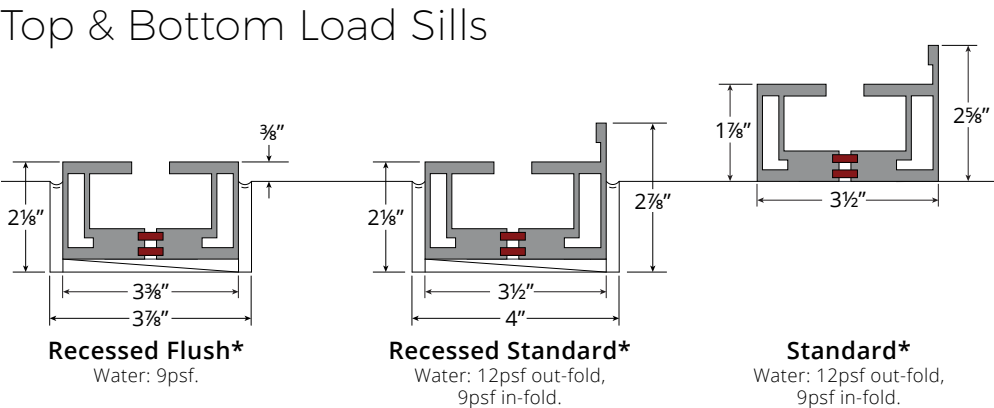


*Florida Impact Tested Options

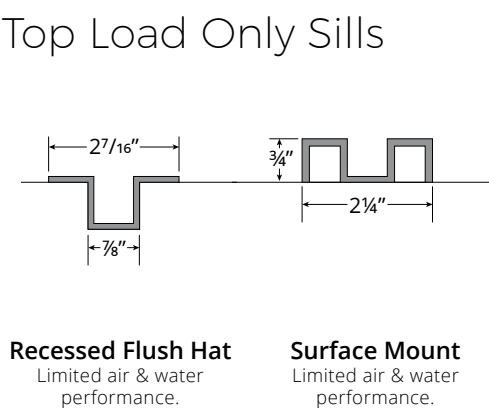
G3: Vertical & Horizontal Rails



Top & Bottom Load Sills



Top Load Only Sills



*Florida Impact Tested Options

SLIDING WINDOW SYSTEMS



Product Overview

With an operation familiar to patio door owners, our Sliding Window systems slide along a track at the sill. The panels can slide to either side of the opening or slide in opposite directions. They are ideal for wide openings and can be configured to stack behind a fixed panel , or slide into a pocket in the wall. This system is available with or without a frame. The standard frame for this unit is our G2 system. Depending on the size of the unit, the thicker, G3 system, may be required. Various screen systems can be attached to this system to retain airflow while keeping insects out. Solar Innovations also offers this type of product as a full-height Sliding Glass Door as well.

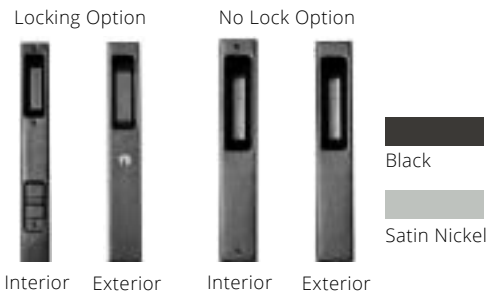
Features

- Weather-tight jamb interlock provides outstanding air and water performance
- Accommodates monolithic and insulated glazing infills from ¼" to 1⅜"
- Polymer and stainless steel rollers with precision bearings
- Multiple sill designs, including high performance sill
- Screen options: folding, sliding, retractable

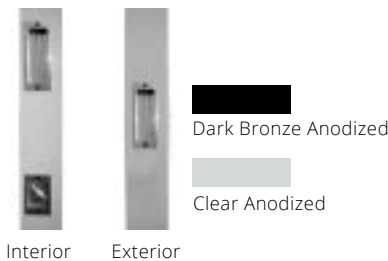
HARDWARE

Handles

Standard Recessed Flush Lock



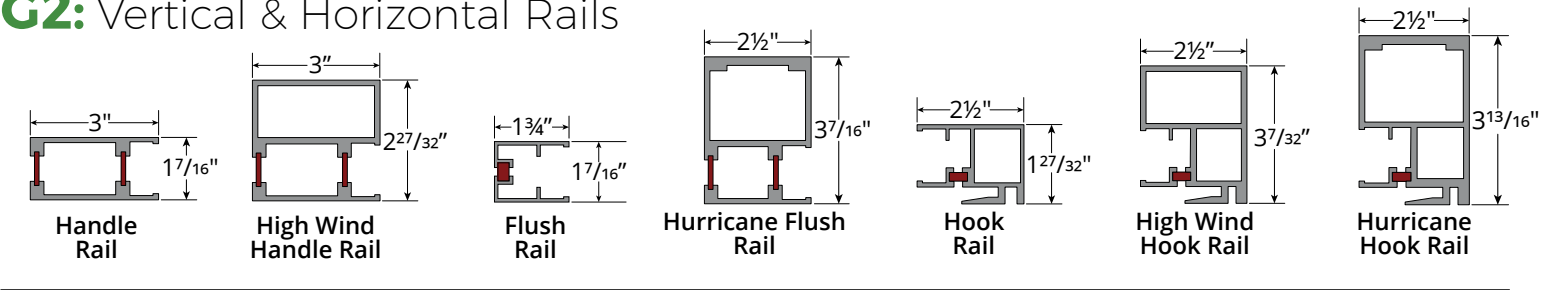
Coastal Recessed Thumb Turn



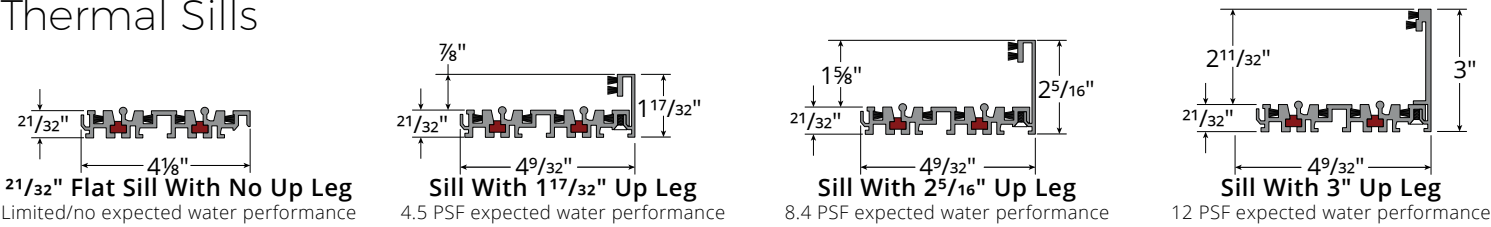
Sliding Windows are similar to our Sliding Glass Door system in form and function. Please refer to our Sliding Glass Door Product Data Sheet for additional detail: solarinnovations.com/wp-content/uploads/Sl8000-Sliding-Glass-Door-Cut-Sheet.pdf

DETAILS

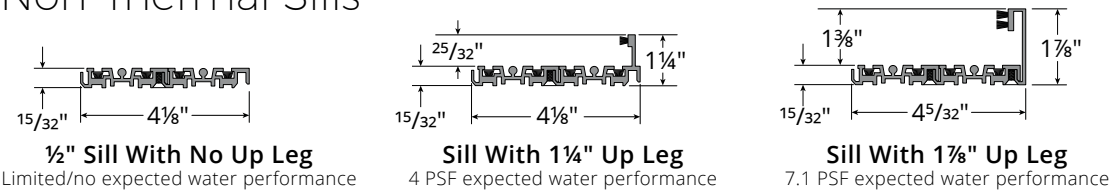
G2: Vertical & Horizontal Rails



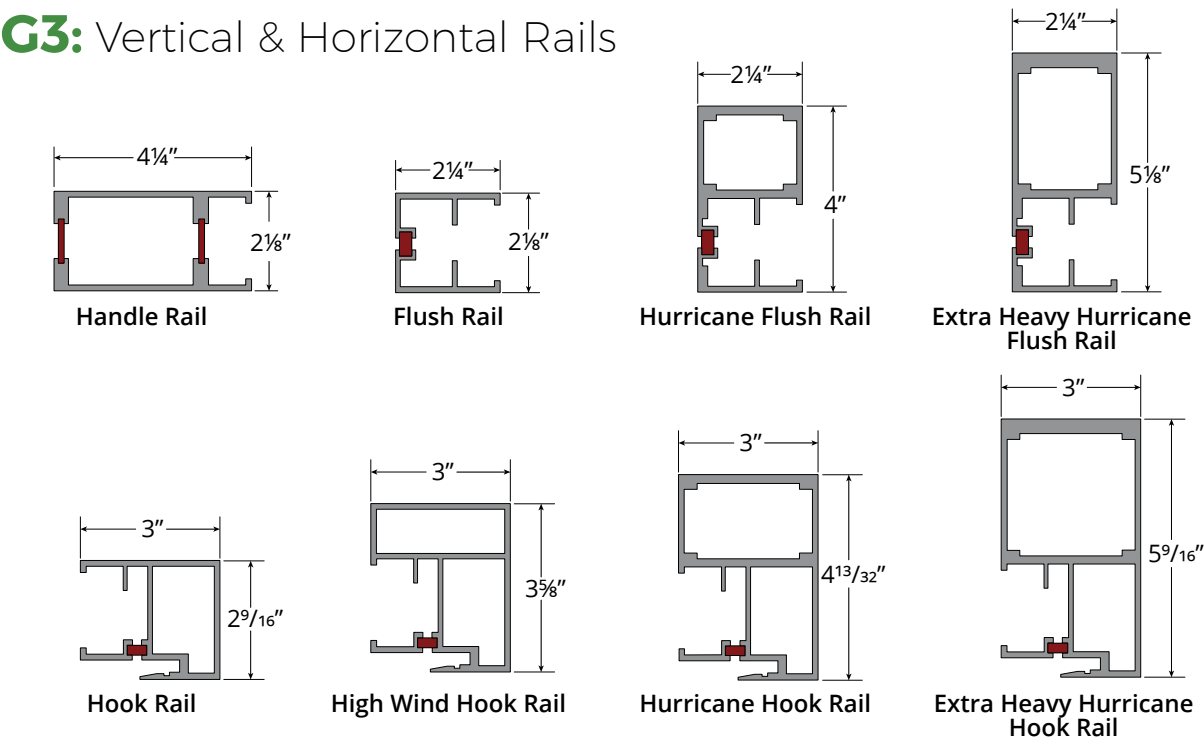
Thermal Sills



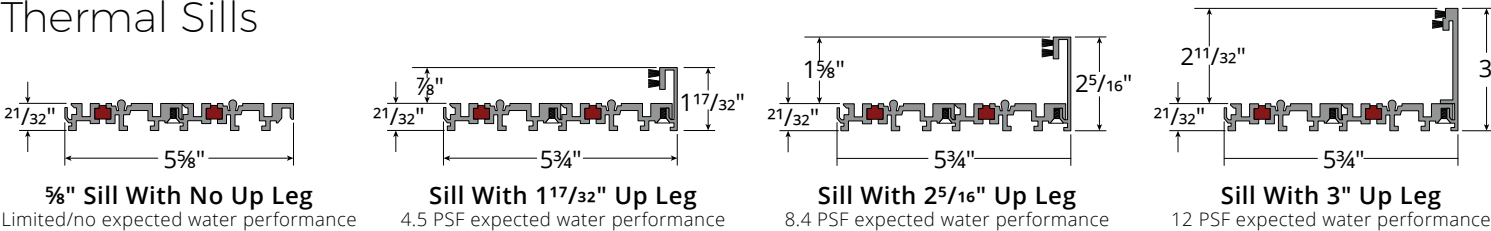
Non-Thermal Sills



G3: Vertical & Horizontal Rails



Thermal Sills



STACKING WINDOW SYSTEMS



Product Overview

Popular in stadium luxury suites, Stacking, or Slide & Stack, Window systems feature individual top-hung panels that glide along a track at the head of the unit. When opened, the panels are stored in a location typically on either side of the unit, but can be configured to allow storage on both sides. This extremely versatile product is ideal for wide openings and offered as a framed or unframed system. The standard frame for this unit is our G2 system. Depending on the size of the unit, the thicker, G3 system, may be required. Solar Innovations also offers this type of product as a full-height Slide & Stack Glass Wall as well.

Features

- Top load panels
- Accommodates monolithic and insulated glazing infills from 3/16" to 1 9/16"
- Panel assemblies, including hardware and trolleys, designed to minimize and simplify maintenance
- Thermally enhanced utilizing thermal strut
- Framed and cartridge retractable screen options

HARDWARE

Locks



Two-Point Locking Handle



Two-Point Keyed Locking Handle*



Thumb Turn Lock



Standard Flush Bolt



Recessed Pull



Low Profile Handle

Pulls

* Additional cost

Pull Hardware, Hinge, and Lock Finish Options



SI White



SI Bronze



Class I Clear Anodized



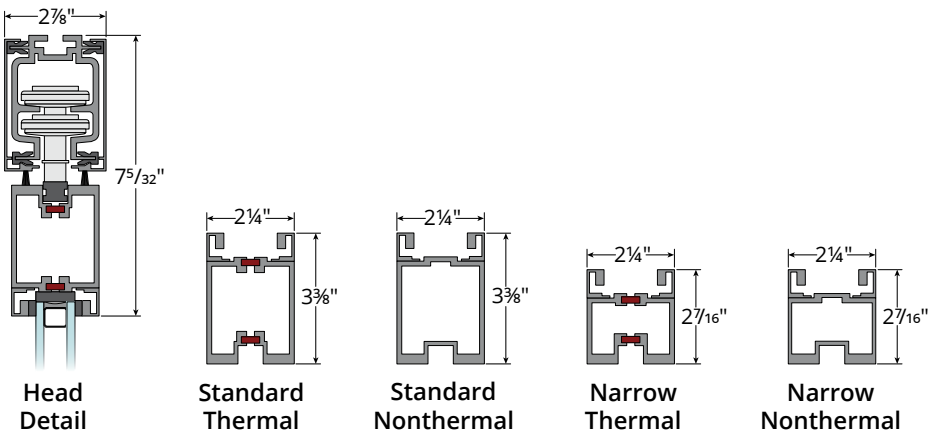
Dark Bronze Anodized

Custom color options available upon request.

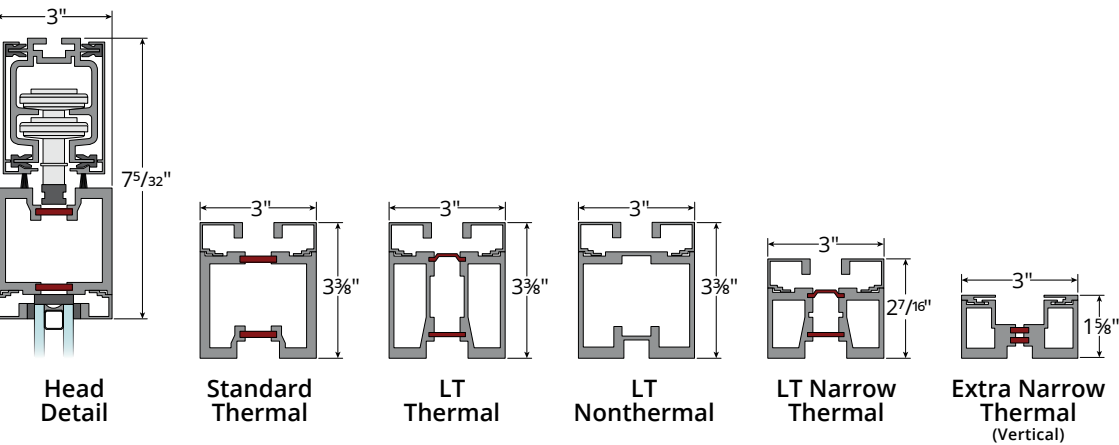
Stacking Windows are similar to our Slide & Stack Wall system in form and function. Please refer to our Sliding Glass Door Product Data Sheet for additional detail: solarinnovations.com/wp-content/uploads/SI3000S-Slide-Stack-Systems-Cutsheet.pdf

DETAILS

G2: Vertical & Horizontal Rails



G3: Vertical & Horizontal Rails



G2 & G3: Sills

