

## SL25 — All Glass Sliding/Pivot System

The SL25 all glass opening window wall system encloses a space, such as a balcony, porch, under a deck or part of a solarium, but easily slides and stacks away to make the space open to the exterior. Due to no stiles and gaskets between panels, the SL25 may not be suitable between exterior and interior conditioned spaces.

### Versatile and Functional

When closed, this system allows unobstructed views while providing wind protection for a balcony, stadium suite, or other similar application. This system offers the designer new dimensions in creating large, exterior glass walls that can be opened.

In apartment settings, for example, the SL25 effectively increases apartment space, providing high-rise residents with a more functional and comfortable balcony area in which to relax, entertain, or set up patio gardens.

### Engineered to handle high wind loads for use in many high rise applications

Achieved DP rating of +40 psf /-45 psf per independent, ASTM E-330 structural load testing of a unit with a standard sill, reinforced turn panel, 1/2" tempered glass thickness and panel size of 2' 7" x 7' 8". The maximum gap between panels is 1/8".

### Noise Resistant

Sound resisting NanaWall Systems can shut out some of the inevitable noises of the busy urban environment, creating an oasis of calm when desired. The NanaWall SL25 with 5/16" (8 mm) tempered glass tested to an STC value of 17.

### Wind Resistant

When shut, the wind resistant panels of the SL25 offer some protection against rain and snow. Partially or fully opened, the SL25 allows users to enjoy sunshine, breezes and the natural environment.

### Creating Comfort and Lowered Energy Costs

The flexibility of the SL25 NanaWall also improves the overall ambience, providing more temperate interiors and reduced energy consumption.

### Structural Protection

Building owners will appreciate the many structural benefits of the SL25. For example, in addition to cutting down energy costs, by protecting the building structure from the wear and tear of the elements, the NanaWall reduces deterioration –

hence saving money in costly repair work.

### Design Freedom

Custom sizes - heights up to 9'0" (2750 mm) and panel widths up to 2'7" (800 mm) are possible. Units can be with a large number of panels stacking to one or both sides of an opening. Besides straight segments, open corners from 90° to 180°, as well as segmented angled turns to enclose circular areas, are possible. Stacking is generally to the inside, but for ground floor applications, stacking on the outside is possible.

### Choice of Finishes

Besides the 50 finishes shown in the NanaWall Powder Coating Finish Chart in the front part of this binder, the full range of RAL colors are also available in both a standard gloss and matte powder coated finishes. A RAL color chart is available on request. Anodized finishes are also available.

**Choice of Glass** – Tempered or laminated in different thickness available.

### Secure with Patented Locking Hardware

Two point locking with concealed top and bottom latches that operates by pull of a spring tensioned cable secures the turn panel to be opened first (US Patent No. 6,618,994). Other panels are secured by carriers at each upper corner and guides at each bottom corner. For door applications, instead of guides at each bottom corner, a special interlock between panels is used. A recessed track is also possible with this application as well as the option of operation from both sides.

### Simplified Installation

With an adjustable head jamb and bottom track, the SL25 System can be installed to fit into many existing openings that may not be level.

**Continued, Long-Term Satisfactory Operation**

Ease of operation to quickly open or close as the two carrier suspension system allows each single panel to be easily slid. State-of-the-art hardware with sealed ball bearing carriers. Long term ease of operation with adjustable head jamb.

**Complete Single Sourced System**

A complete, precision built system with pre-fitted hardware is supplied.

**Complete Coordinated Glass Wall**

With the SL25, a coordinated glass wall can be provided with SL45 matching fixed windows, transoms, and tilt-turn windows. For adjacent walls, matching folding and French doors can also be provided.

**Screen**

The Screen Classic, a series of collapsible pleated screen panels riding on a single track is available as an option. The system can be installed within the opening or, with extended tracks, be hidden out of view when not in use. See the Screens section for more details.

The Screen ONE XL is a non-pleated screening option for single openings up to 18' (5,485 mm) wide and double openings up to 36' (10,970 mm) wide.



### General Description

The all glass SL25 is an individual, single panel sliding system on a single track with no stiles but with aluminum rails and frame. Any custom panel size within the limitation of the Panel Size Chart is possible. Weight of a sliding panel for the SL25 standard version is not to exceed 36 kg (80 lbs) and for the SL25XXL version it is not to exceed 65 kg (143 lbs). An end panel, on the side where the panels stack, is a turn panel; there are many configurations possible, see “Possible Configurations” for possibilities. Stack must be 90° to the opening.

### Frames & Panels

The nominal head jamb thickness is 1 3/4” (45 mm), the nominal bottom track thickness is 2 1/16” (53 mm) and the nominal side jamb thickness is 1 5/16” (34 mm) of extruded aluminum. The nominal thickness of the height compensating profile above the head jamb is 2” (50 mm). All pins and screws to assemble the frame are provided. The rails of the sliding panels and swing panels are extruded aluminum with nominal panel thickness of 1 1/16” (27 mm).

### Finishes

In addition to the choices from the NanaWall Powder Coating Finish Chart, the full range of RAL high gloss and matte powder coatings are also available. Anodized finishes are also available.

### Glazing

Glazing can be either tempered or laminated. Glass thickness between 1/4” (6 mm) and 1/2” (12 mm) is to be determined based on height of unit and design wind load requirements. Bird Safe Glass is also available.

### Weatherstripping

As shown in cross-section drawings, all weather stripping consisting of APTK and brush seals are provided for sealing between panels and frame.

### Top Hung Sliding/Turning Hardware

For sliding, attached to the upper corners of each panel are load bearing stainless steel unidirectional carriers with two rollers each. Each roller has sealed bearings and is coated with toughened Polyamide to ensure sound free running and resistance to extreme temperature.

### Patented Locking Hardware



Two point locking with concealed top and bottom latches secures the turn panel that opens first. The mechanism is operated by the pull of a spring tensioned cable. (US Patent No. 6,618,994). Other options such as a knob to operate the cable from the exterior, lever handles, etc. are also available.

**NOTE:** The SL25 is not a secure, burglar resistant system and is not suitable for exterior applications with conditioned interior space.



# Standard Sill

## SL25

TYPE OF TEST	REINFORCED LOCKING AT TURN PANEL and top and bottom latches	STANDARD LOCKING AT TURN PANEL and top and bottom latches				
 <p><b>Structural Load Deflection</b> <sup>①</sup>                      ASTM E-330: pass                      1/2" (12 mm) glazing  <b>See Design Windload Charts for other sized panels</b>  <i>Note that the structural test pressures were 50% higher than the design pressures.</i></p>	<p><b>DESIGN PRESSURE</b></p> <table border="0"> <tr> <td>Positive @ <b>40</b> psf (1900 Pa)</td> <td>Negative @ <b>45</b> psf (2150 Pa)</td> </tr> </table>	Positive @ <b>40</b> psf (1900 Pa)	Negative @ <b>45</b> psf (2150 Pa)	<p><b>DESIGN PRESSURE</b></p> <table border="0"> <tr> <td>Positive @ <b>25</b> psf (1190 Pa)</td> <td>Negative @ <b>45</b> psf (2150 Pa)</td> </tr> </table>	Positive @ <b>25</b> psf (1190 Pa)	Negative @ <b>45</b> psf (2150 Pa)
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Positive @ <b>25</b> psf (1190 Pa)	Negative @ <b>45</b> psf (2150 Pa)					
 <p><b>Structural Load Deflection</b>                      ASTM E-330: pass                      5/16" (8 mm) glazing</p>	<p><b>DESIGN PRESSURE</b></p> <table border="0"> <tr> <td>--</td> <td>--</td> </tr> </table>	--	--	<p><b>DESIGN PRESSURE</b></p> <table border="0"> <tr> <td>Positive @ <b>20</b> psf (950 Pa)</td> <td>Negative @ <b>20</b> psf (950 Pa)</td> </tr> </table>	Positive @ <b>20</b> psf (950 Pa)	Negative @ <b>20</b> psf (950 Pa)
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Positive @ <b>20</b> psf (950 Pa)	Negative @ <b>20</b> psf (950 Pa)					

### NOTES


① Excerpts of results of a 10'6" W x 8'2" H four panel unit with standard sill and 1/2" (12 mm) tempered glazing tested by Architectural Testing Inc., Fresno, CA, an independent testing laboratory, in April 2010.

\*\*\*Excerpts of results of a 10' 7 1/2" W x 6'6" four panel unit with standard sill and 5/16" (8 mm) glass tested by Architectural Testing, Inc., Fresno, CA, an independent testing laboratory, in July 2005.

**SPECIAL WATER TEST**

Special Water Test with 2" W x 1 3/16" H aluminum tube under standard sill with L bracket that extends 1" W on inside and 2 3/8" H. (See drawing below). Total Sq. footage of unit = 58/08 ft<sup>2</sup>; total water sprayed on unit during 15 min. of testing = 58.08 ft<sup>2</sup> x 5 gal./ft<sup>2</sup>/hr x .25 hr. = 72.6 gallons (9293 fl.oz.)

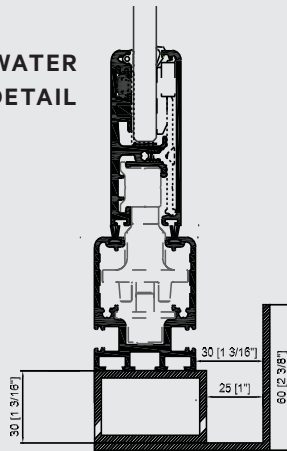
Did not follow the standard test procedure of test failure upon water penetration as defined by test standards. In this case water penetration was allowed and instead the amount of water penetration was measured.

TYPE OF TEST	DESIGN PRESSURE	AMOUNT OF WATER PENETRATION MEASURED		
 <p><b>Water Penetration</b> <sup>①</sup> ASTM E-331 (water spray for 15 minutes at the rate of 5 gal./ft<sup>2</sup>/h (3.4 L/m<sup>2</sup>/min.)</p>	@ <b>0</b> psf (0 Pa)	31 fluid oz.	.091 L	0.03% of total water sprayed
	@ <b>1.57</b> psf (75 Pa)	14.6 fluid oz.	.43 L	0.16% of total water sprayed
	@ <b>6.24</b> psf (300 Pa)	144 fluid oz.	4.26 L	1.55% of total water sprayed

**NOTES**

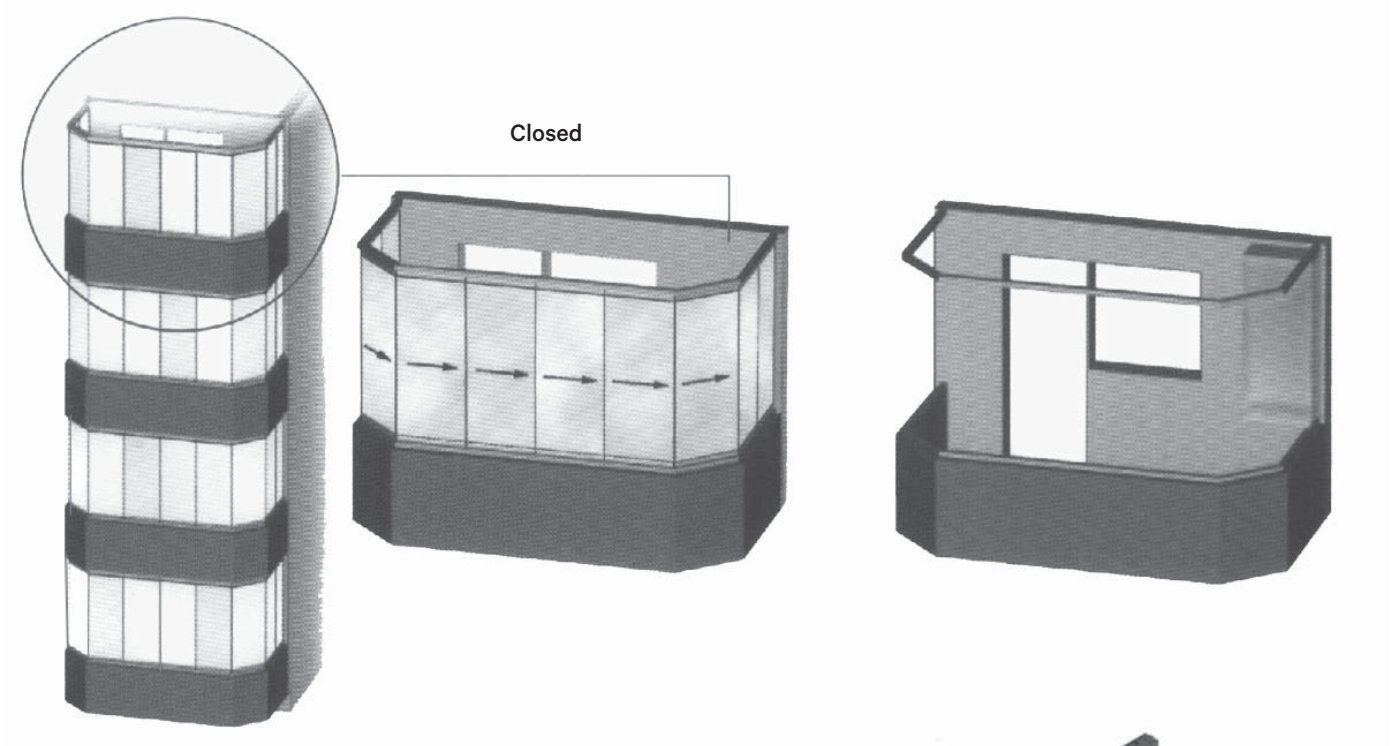
② Excerpts of results of a 3 panel unit width 7' 4 1/2" (2250 mm) tested by Architectural Testing, Inc., Fresno, CA, an independent testing laboratory, in October 2010.

**SPECIAL WATER TEST DETAIL**



Note addition of a 1" x 2 3/8" tube with weep hole drains.

Balcony Application

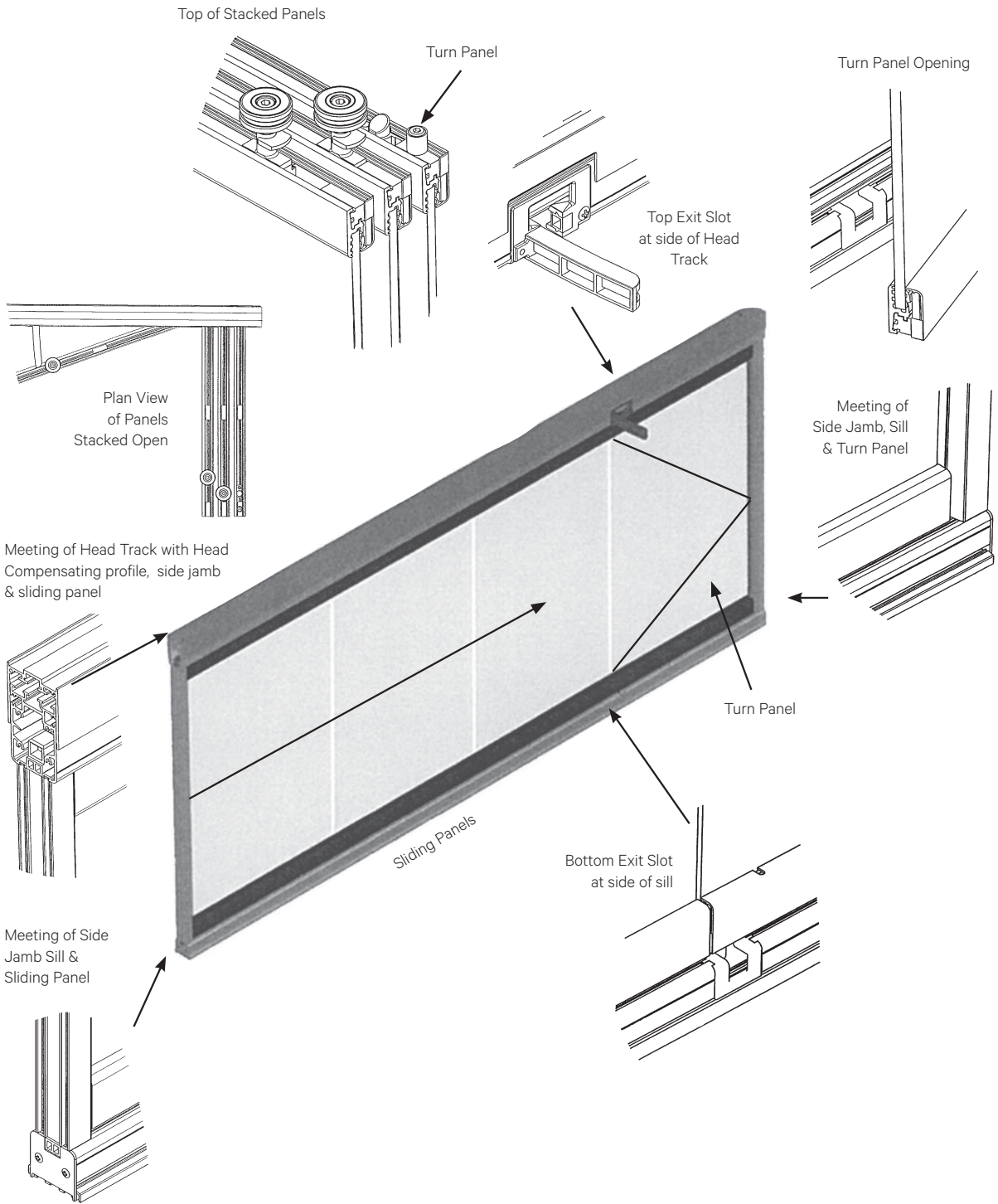


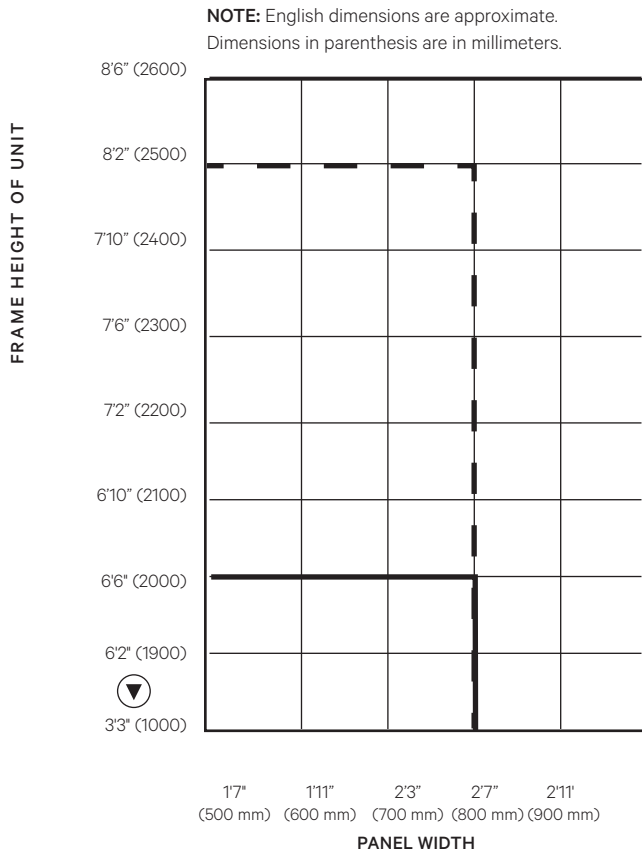
4 Panel Unit Example

Unit in Closed Position

Unit in Open Position







**Any custom size is possible up to the maximum size shown.**

— Solid dark line on chart indicates maximum frame height possible for a given maximum panel width for SL25 standard version with either 1/4" (6 mm) or 5/16" (8 mm) glass.

- - - Broken line on chart indicates maximum frame height possible for a given maximum panel width for a SL25XXL version with either 3/8" (10 mm) or 1/2" (12 mm) glass.

The unit width is the panel width multiplied by the number of panels.

⊕ Indicates height decrease

**Maximum Number of Panels that can be stacked to each side with given individual panel width:**

**PANEL WIDTH BETWEEN:**

Under 1'7" (500 mm)	6
1'7" - 1'11" (501 - 600 mm)	8
1'11" - 2'3" (601 - 700 mm)	10
2'3" - 2'7" (701 - 800 mm)	12



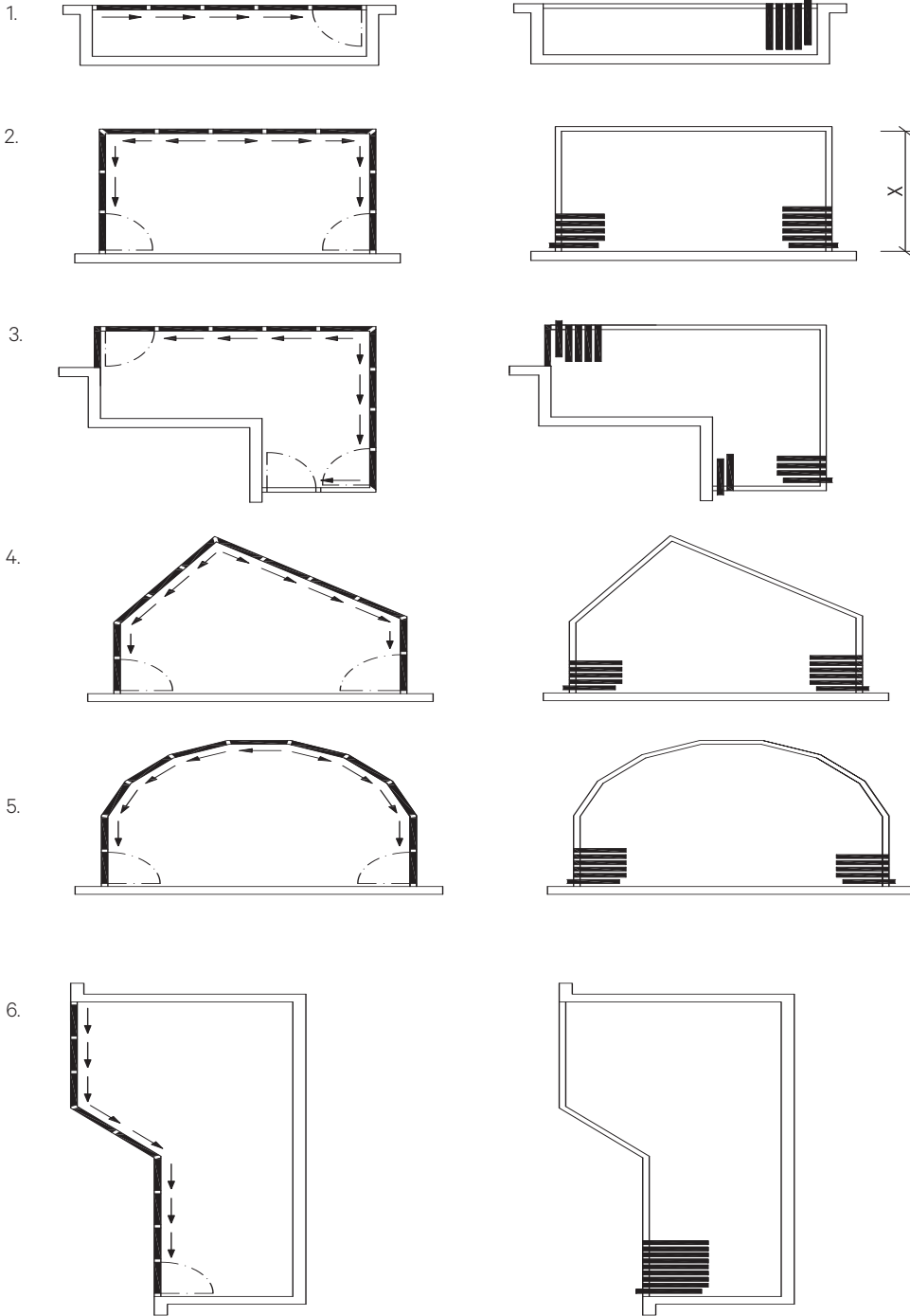


As there can be many other possibilities, please submit your ideas and sketches to NanaWall Systems, Inc. for evaluation.

Shown are inward opening possibilities. Outward opening is also possible

UNIT IN CLOSED POSITION

UNIT IN OPEN POSITION

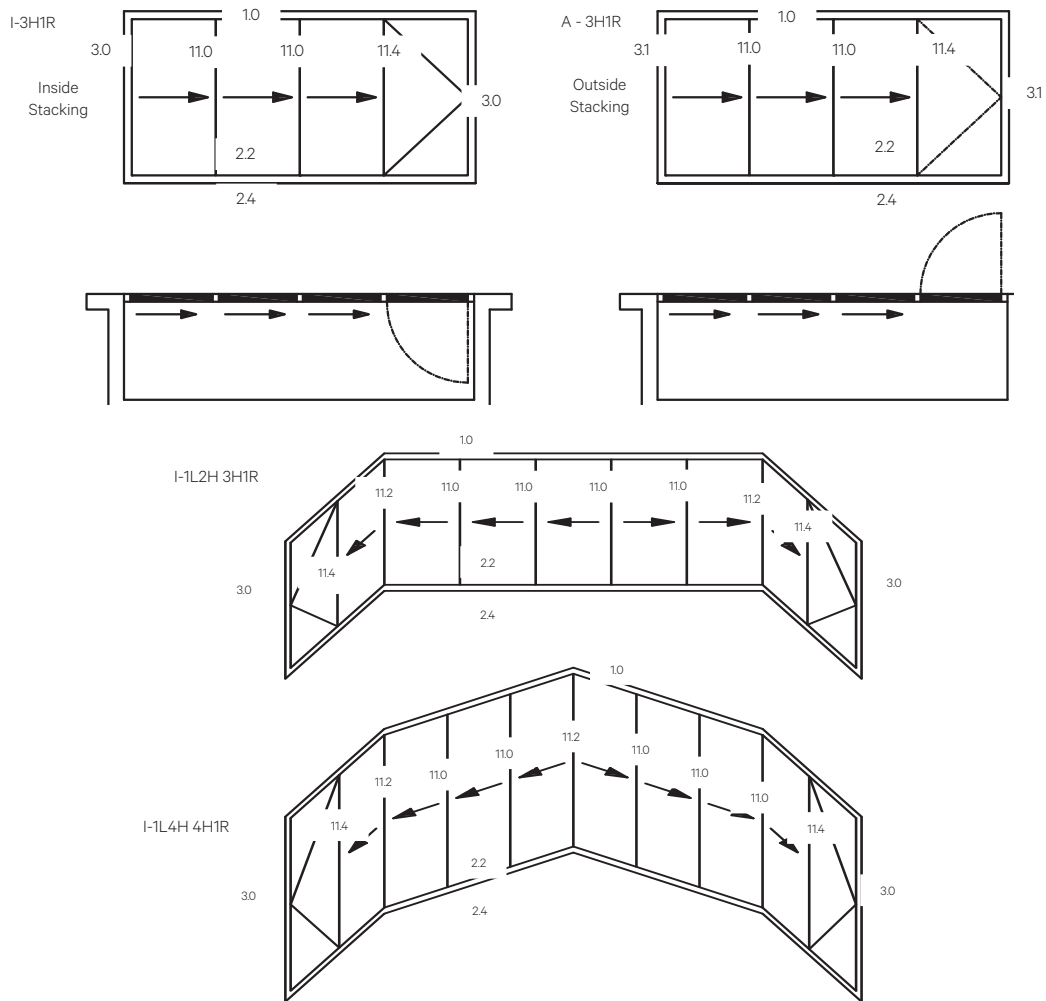


Maximum Number of Panels that can be stacked to each side with given individual panel width:

PANEL WIDTH BETWEEN:	
Under 1'7" (500 mm)	6
1'7" - 1'11" (501 - 600 mm)	8
1'11" - 2'3" (601 - 700 mm)	10
2'3" - 2'7" (701 - 800 mm)	12

**Note** - when panels move around corners, there should be sufficient clearance from adjacent post, etc.

**Some Typical Basic Elevations** (Looking from the inside)



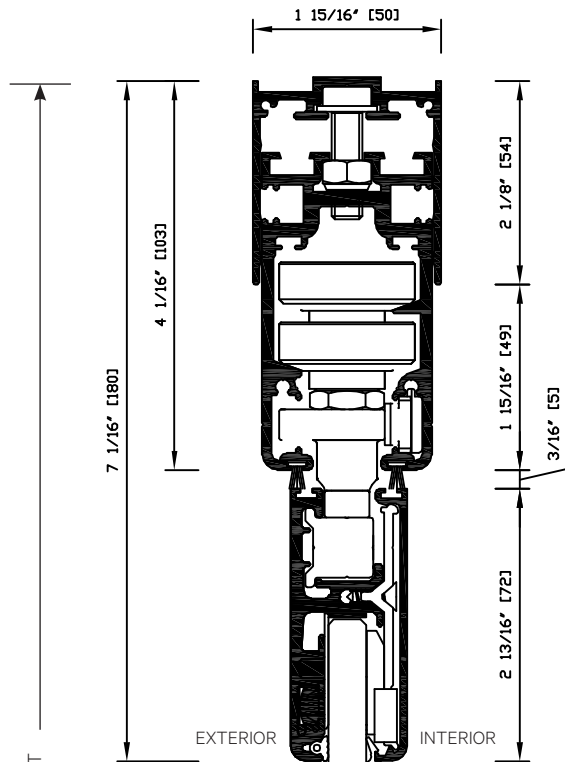
**Maximum Number of Panels that can be stacked to each side with given individual panel width:**

**PANEL WIDTH BETWEEN:**

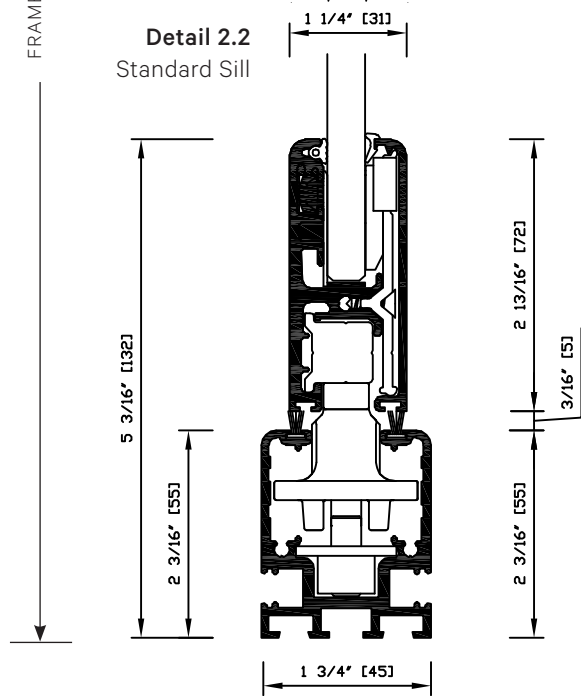
Under 1'7" (500 mm)	6
1'7" - 1'11" (501 - 600 mm)	8
1'11" - 2'3" (601 - 700 mm)	10
2'3" - 2'7" (701 - 800 mm)	12

**Detail 1.0** Head Jamb (with head compensating profile)

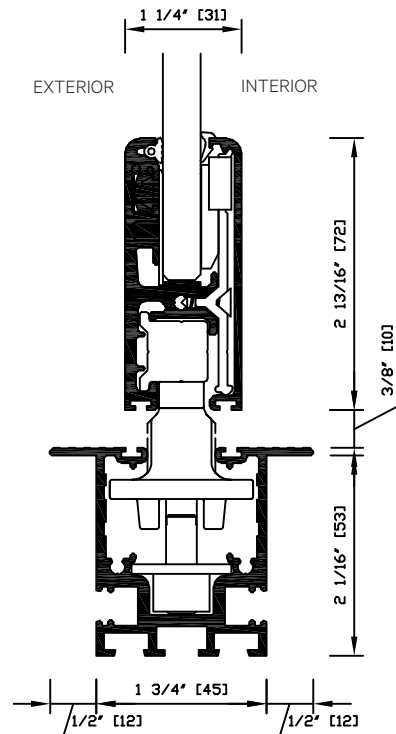
Available with 3/8" (10 mm)  
or 1/2" (12 mm) glass.



**Detail 2.2**  
Standard Sill

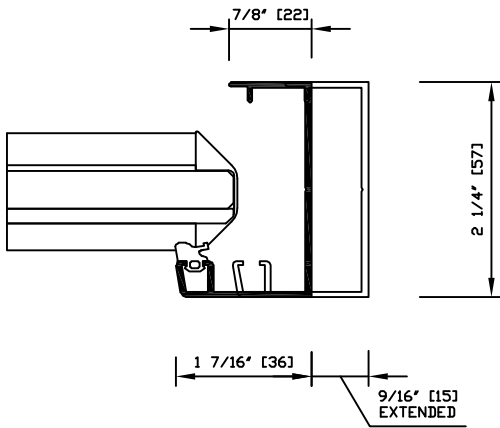


**Detail 2.4** Recessed Sill



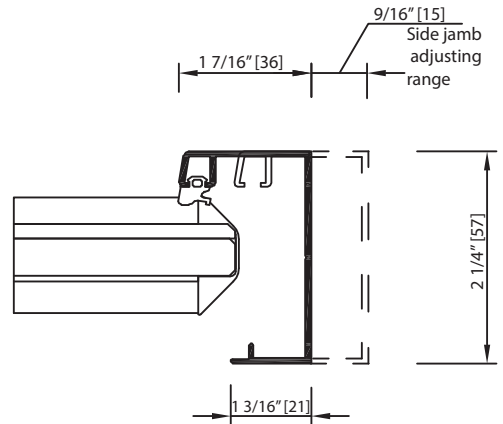
**Detail 3.0**

Side Jamb - Inswing



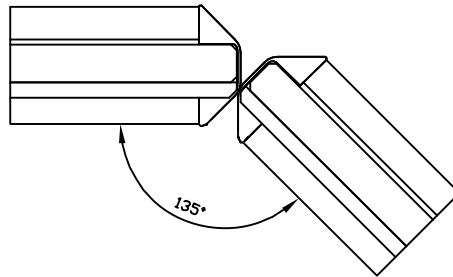
**Detail 3.1**

Side Jamb - Outswing



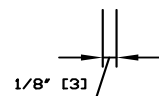
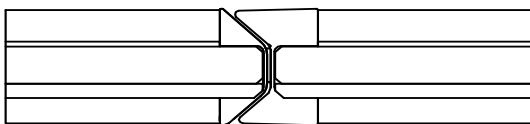
**Detail 11.2**

Variable angle between two panels.  
Any angle from 90° to 180° is possible.



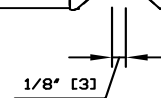
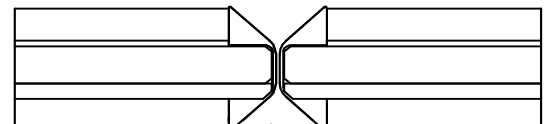
**Detail 11.0**

Two Sliding Panel Meeting



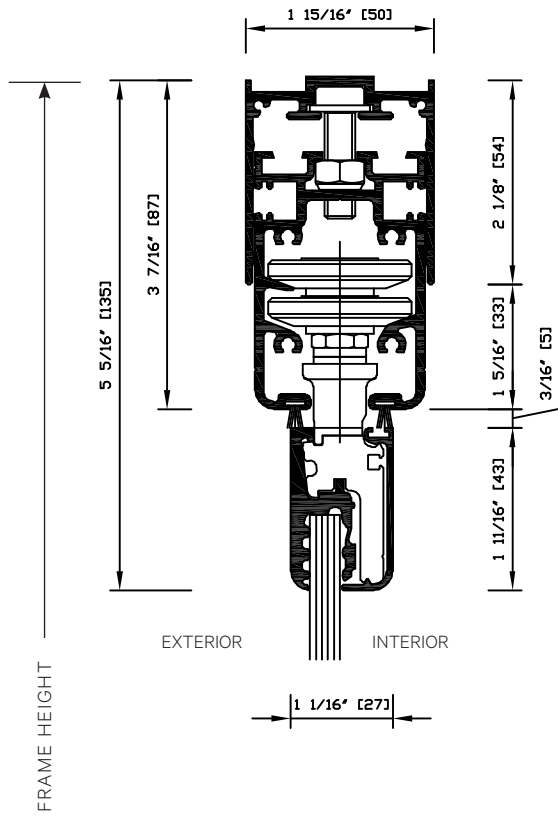
**Detail 11.4**

Sliding Panel Meeting Turn Panel

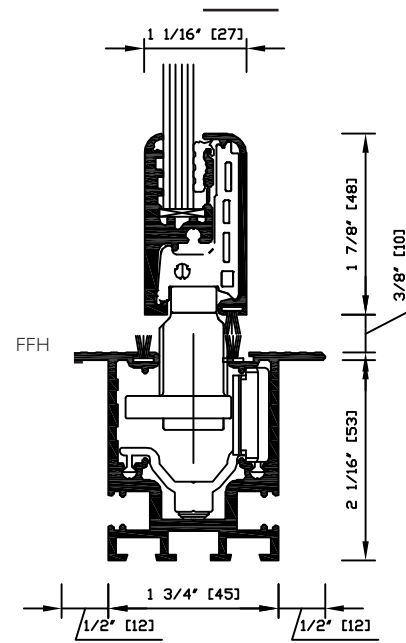


**Detail 1.0**  
(with head compensating profile)

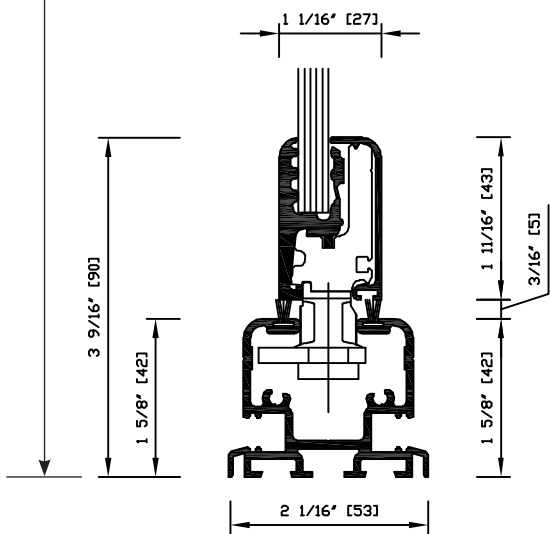
Available with 1/4" (6 mm)  
or 5/16" (8 mm) glass.



**Detail 2.4 Recessed Sill**

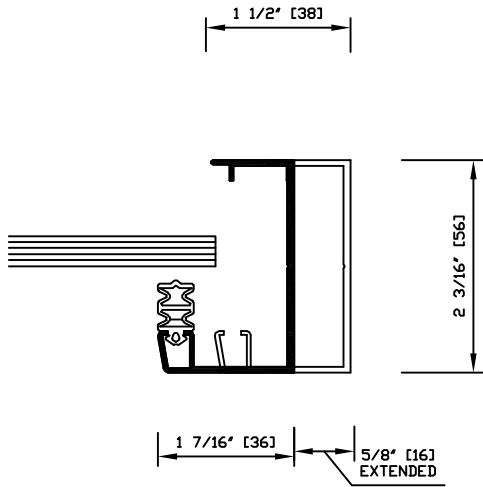


**Detail 2.2 Standard Sill**



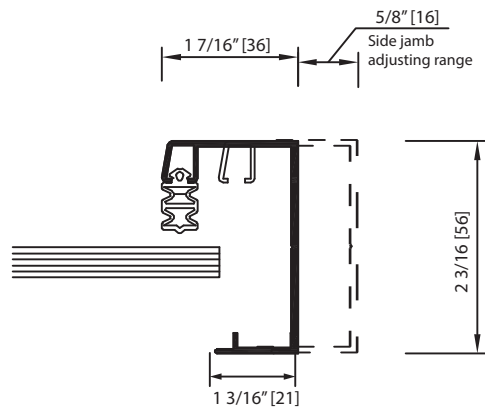
**Detail 3.0**

Side Jamb at Turn Panel - Inswing



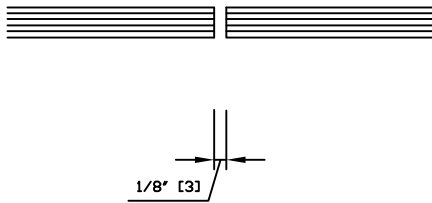
**Detail 3.1**

Side Jamb at Turn Panel - Outswing



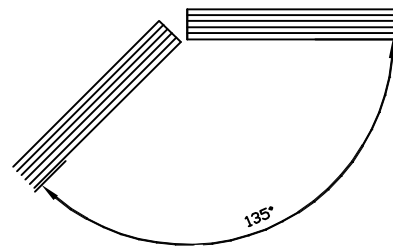
**Detail 11.0 & 11.4**

Two Panels Meeting

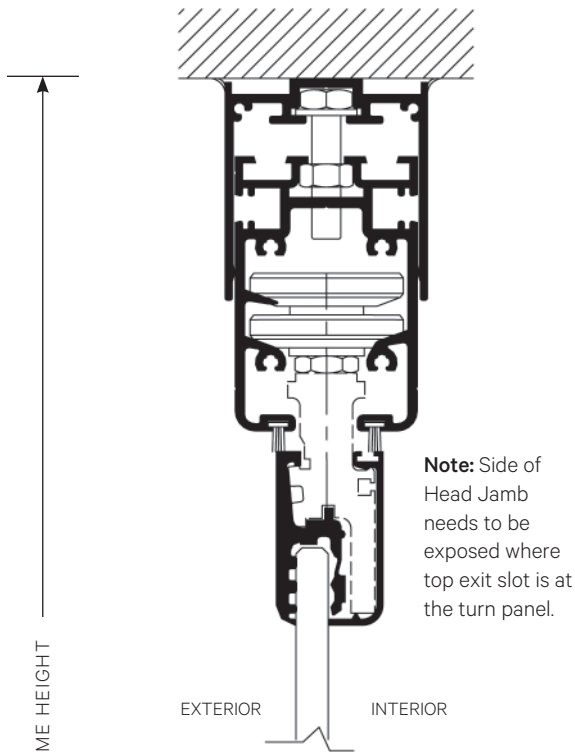


**Detail 11.2**

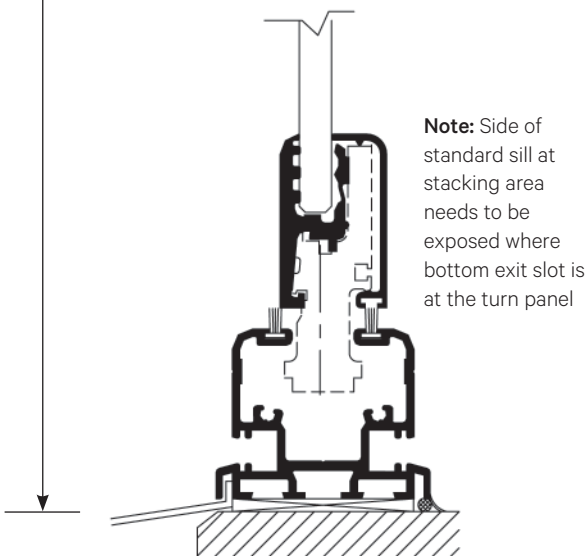
Variable angle between two panels.  
Any angle from 90° to 180° is possible.



**Head Jamb**  
(with head compensating profile)



**Standard Sill Detail**



**INSTALLATION NOTES**

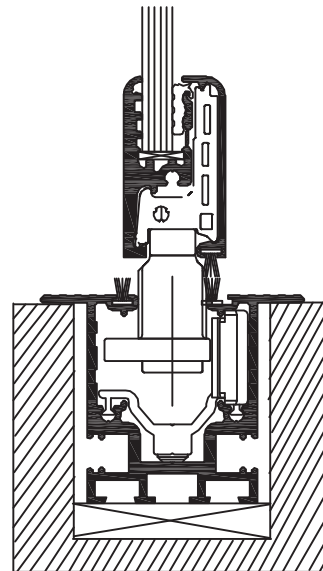
Suggested Typical Installation drawings shown are very general and may not be suitable for any particular installation. Product placement, fasteners, flashing, waterproofing, sealant, trim and other details for specific surrounding conditions must be properly designed and provided by others.

**INSTALLATION CONSIDERATIONS**

The approximate weight of a panel with 1/4"-5/16" (6-8 mm) glass is 4-5 lbs/sq. ft. (21-27 kg/m<sup>2</sup>) and with 3/8"-1/2" (10-12 mm) glass is 5.5-6.5 lbs/sq. ft. (27-35 kg/m<sup>2</sup>). The maximum vertical structural deflection of the header should be the lesser of L/720 of the span and 1/4" (6 mm) under full loads. Structural support for lateral loads (both windload and when the panels are stacked open) must be provided. See "Pre-Installation Preparation and Installation Guidelines" in the General Introduction Section. An owner's manual with installation instructions is available upon request.

It is recommended that all building dead loads be applied to the header prior to installing the NanaWall. If so and if a reasonable amount of time has been allowed for the effect of this dead load on the header, then only the building's live load can be used to meet the above requirements of L/720 or 1/4" (6 mm). If not, both the dead and live loads need to be considered.

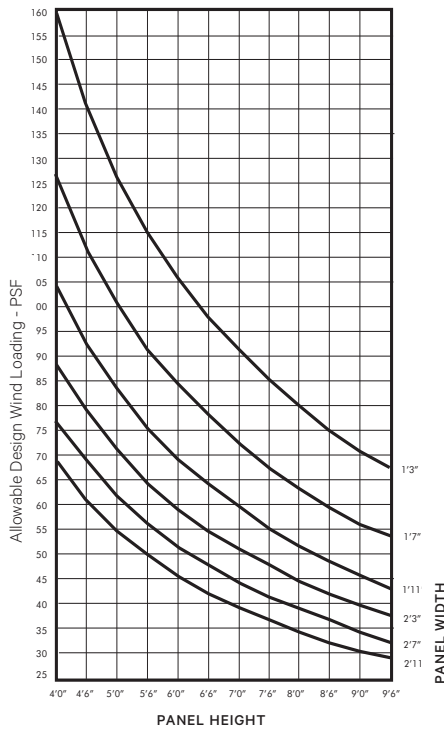
**Recessed Sill Detail**



APPLICABLE TO UNITS WITH STANDARD SILL ONLY

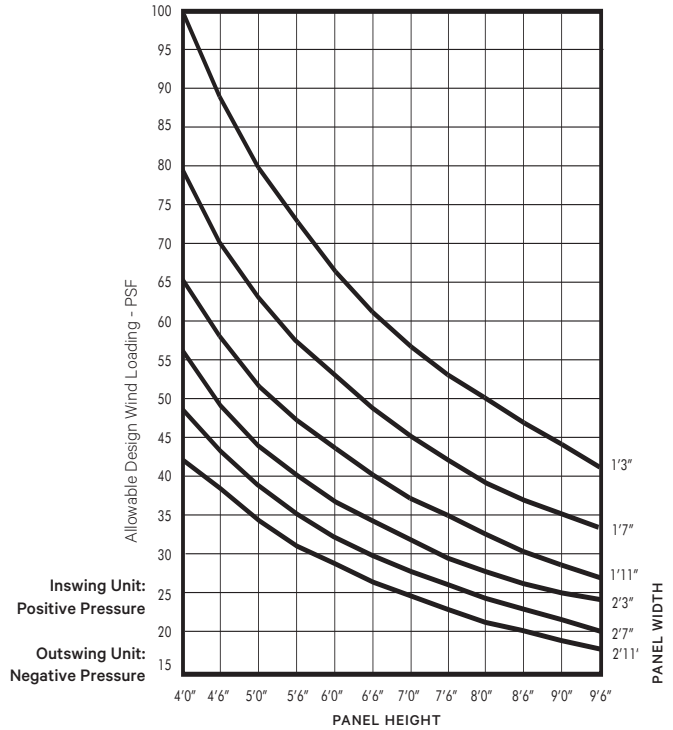
(Derived from Comparative Analysis) Test Unit Size: 10'6" W x 8'2" H - 6 panels with standard sill and 12 mm glass (only applicable to standard sill)

Reinforced Unit



Inswing Unit: Positive Pressure  
Outswing Unit: Negative Pressure

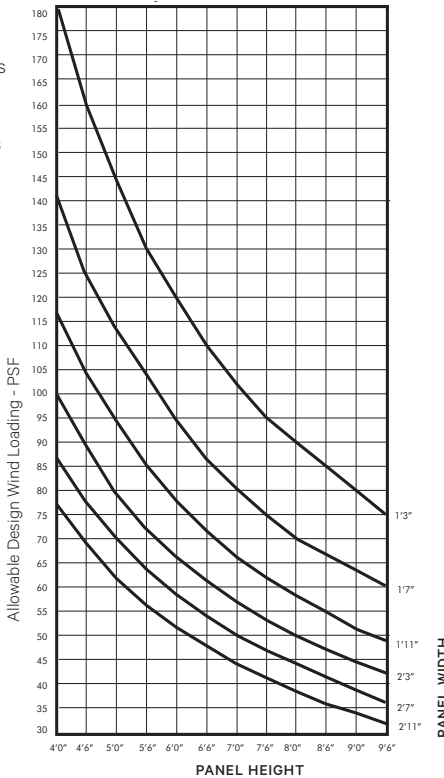
Standard Unit



Inswing Unit: Positive Pressure  
Outswing Unit: Negative Pressure

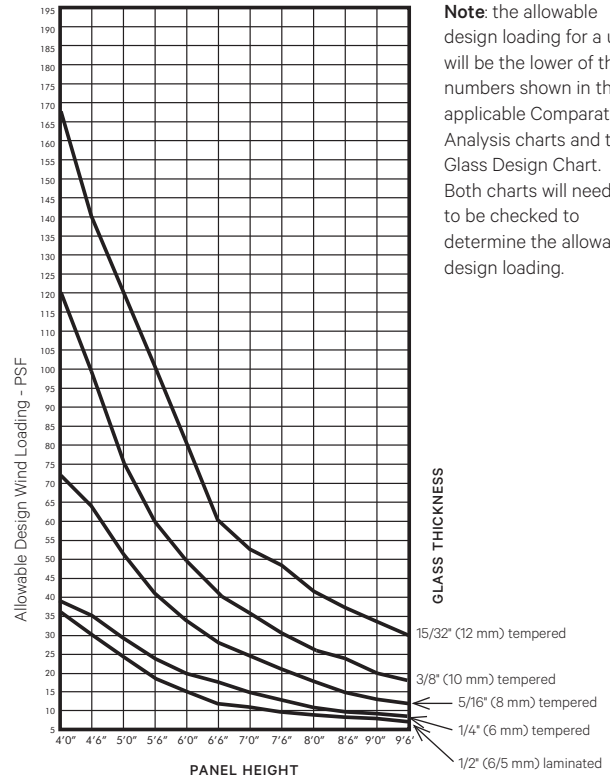
Both Reinforced and Standard Unit

Please note that some jurisdictions may limit the use of these charts or may not accept them at all. Design pressures and/or sizes may be restricted to what was tested. For Florida approved products, please see detailed FL Evaluation Report for restrictions.



Inswing Unit: Positive Pressure  
Outswing Unit: Negative Pressure

Glass Design in Conformance with ASTM E 1300



Note: the allowable design loading for a unit will be the lower of the numbers shown in the applicable Comparative Analysis charts and the Glass Design Chart. Both charts will need to be checked to determine the allowable design loading.