

Woodlore® Plus Shutters

Program Reference Guide 2021

2021 Shutter Revision log

WOODLORE® PLUS

Effective Date	Topic	Sectio n	Note	
2021/01/13	Quarter Round	е	Change the name of Quarter Round Scribe Trim to Quarter Round.	
2021/01/22	M shape bottom track	j1	Add the drawing of M shape bottom track with dimensions.	
2021/02/20	81mm Bottom Pivot L Bracket	j1	Update the drawing of 81mm Bottom Pivot L Bracket.	
2021/03/01	Increase Transparent and Black Colors for Hoffman Keys	i	Increase transparent and black colors for hoffman keys, add hoffman key colors coordination chart.	
2021/03/24	Double hung	<mark>k</mark>	Double hung Shutters: add content For Double Hung shutter, whenever an upper or lower panel is larger than 78", we will add one more extra hinge for it, we will also attempt to create larger top/bottom rails for additional strength by reducing the number of louvers by one as long as the rail sizes remain within spec.	
2021/03/24	General Product Specifications; Divider Rails;	<mark>f,h</mark>	f :Add content: Divider rail is required for panel heights over 78" for non-waterproof option. Divider rail is required for panel heights over 72" for waterproof option. Standard divider rail size is 3". Please note the standard top/bottom rail size should be within 2.75"~6.5". For regular shutters, the step for the rail size is 1/8". h Divider Rails: change Standard width: 3" to Standard size: 3".	

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Features and Benefits

Built around the concept of modern convenience, Woodlore[®] plus combines wood composite frames with durable ABS louvers. Wood composite materials used are harvested from well-managed forests and finished with a polypropylene coating that prevents moisture absorption and allows for easy stain removal. ABS co-polymer louvers are dimensionally stable, which resist cupping, warping and twisting.

• 36" wide single panel for enhanced view.

Reinforced engineered stiles – Stile core durability reinforced with multiple layers of wood bonded together. The result is a robust support system for shutter panels.

UV inhibitor protects shutters and home décor from UV rays, prevents color fading and sun damage.

Multiple stile options are available in various sizes to accommodate different window configurations. Astragal or Rabbet stiles provide a natural light block between panels.

A wide range of frames with inserts, which keep installation screws out of sight for a clean and decorative look, match any style and preference.

Personalize shutters with special options. Choose from fixed louvers, hidden or offset tilt rods, café styles, bay and corner window shutters, track systems and many more.

Quick and easy on-site assembly and installation with the pre-installed magnets and hinges, pre-mitered frames and slotted keyholes.

For Waterproof Option:

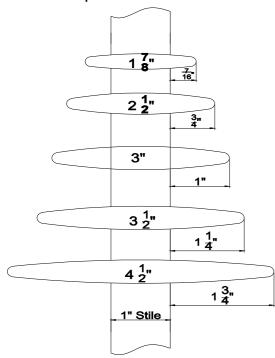
- The special option is perfect for wet or moisture prone areas in the home.
- Featuring enhanced resistance to moisture, shrinking and warping, the shutter frame, stile and louvers are made from durable and waterproof ABS co-polymer
- The unique UV inhibiting finish is designed for a virtually worry-free solution.
- Stainless steel hinges included in the option are guaranteed never to rust or corrode.

Colors & Louver Sizes/Louver Clearance

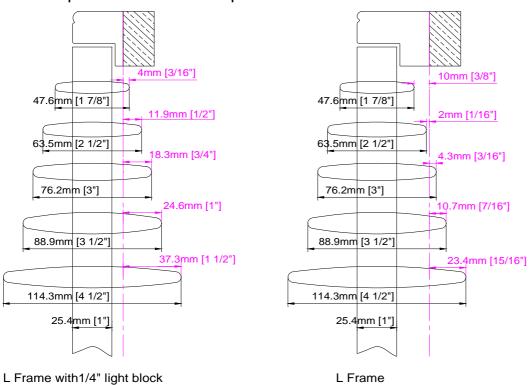
No.	Color ID	Color Name
1	001	Pure White
2	002	Extra White
3	003	Silk White
4	004	Bright White
5	006	Pearl
6	007	Ivory Lace
7	009	Creamy
8	012	Crisp Linen
9	016	Butter
10	019	String
11	030	Moondust
12	032	Sea Mist
13	042	Hall Gray
14	046	Ice
15	048	Chai
16	049	Stone Gray
17	051	Brown Gray
18	053	Clay
19	063	Decorators White
20	066	Winchester White 2010
21	073	Sky Gray
22	074	Element Gray
23	075	Storm Gray
24	077	Dawn
25	078	Cloud Blue
26	080	Taupe Gray
27	836	Classic Black

Lou	vers
Elliptical	1 ½" 2 ½" 3" 3 ½" 4 ½"

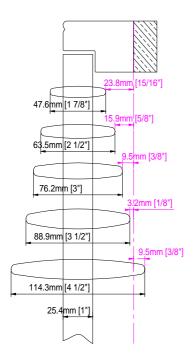
Louver Depth Clearance



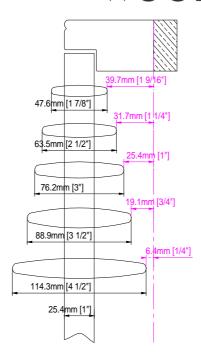
Louver Depth Clearance For Specific Frames



Not available for waterproof option

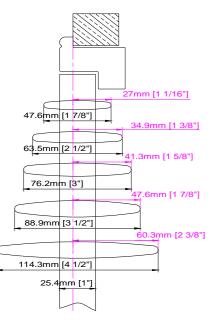


L Frame with 1/2" Buildout



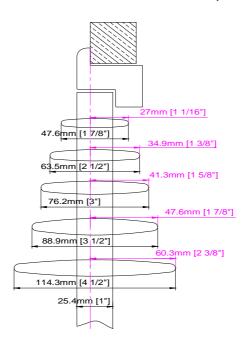
L Frame with 1" Buildout

Not available for waterproof option

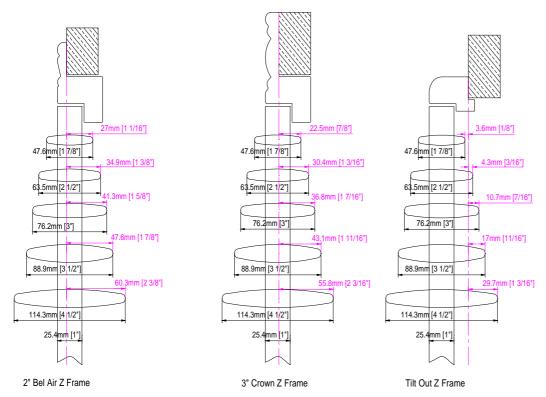


1 1/4" Beaded Z Frame

Not available for waterproof option

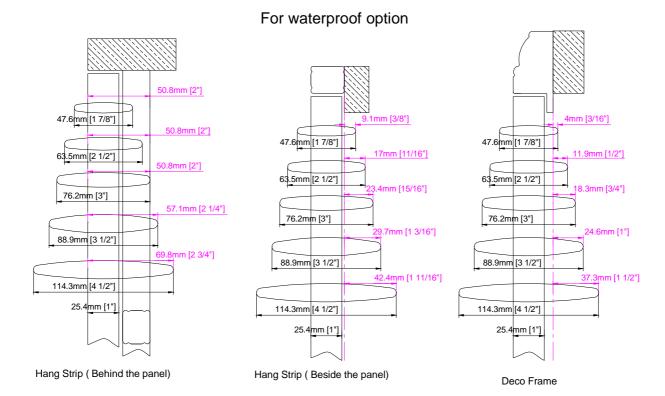


1 1/2" Bullnose Z Frame



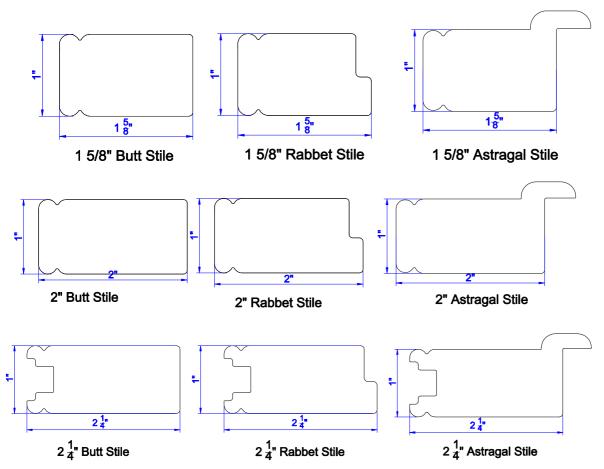
Not available for waterproof option

For non-waterproof option 50.8mm [2"] 47.6mm [1 7/8"] nm [3/8"] 50.8mm [2"] 47.6mm [1 7/8"] 47.6mm [1 7/8"] 63.5mm [2 1/2"] 17mm [11/16"] 50.8mm [2"] 63.5mm [2 1/2"] 63.5mm [2 1/2"] 4mm [15/16"] 8.3mm [3/4"] 76.2mm [3"] 57.1mm [2 1/4"] 76.2mm [3"] 76.2mm [3"] 24.6mm [1"] .7mm [1 3/16"] 88.9mm [3 1/2"] .8mm [2 3/4"] 88.9mm [3 1/2"] 88.9mm [3 1/2"] 3mm [1 1/2"] 4mm [1 11/16"] 114.3mm [4 1/2"] 114.3mm [4 1/2"] 25.4mm [1"] 114.3mm [4 1/2"] 25.4mm [1"] 25.4mm [1"] Hang Strip (Behind the panel) Hang Strip (Beside the panel) Deco Frame



Stiles

Default: Beaded stile

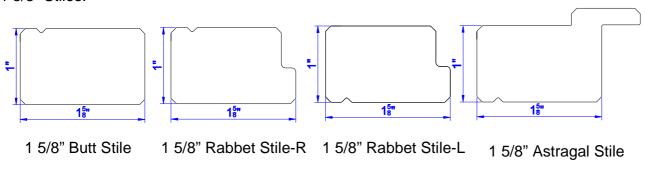


Note: 1 5/8" and 2 1/4" stile is not available for Waterproof option.

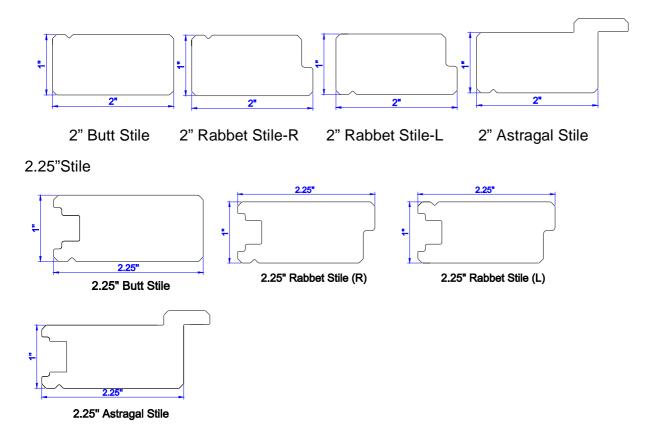
Optional: Chamfer stile

For Non-Waterproof option:

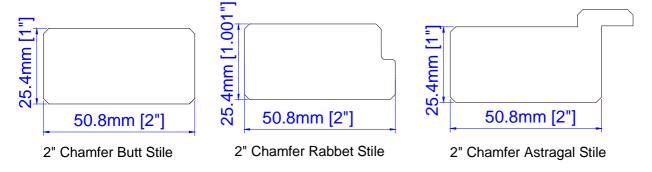
1 5/8" Stiles:



2" Stiles:



For Waterproof option:



Stile between panel closure

Single panel

I) Panel width < 9"

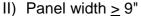
Rabbeted stile (Deco frame, L frame, Z frame

and Hang strip beside panel)

- · 1 ⁵/₈"
- · 2" (default)

Butt stile only (Hang strip behind panel)

- 1 ⁵/₈" (Optional for panel width ≤ 12")
- ∘ 2" (default)



Butt stile only

- 1 ⁵/₈" (Optional for panel width ≤ 12")
- 2" (default)



2 panels or more

Rabbet stile

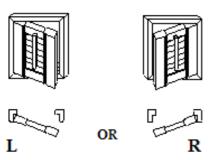
- \circ 1 ⁵/₈" (Optional for panel width ≤ 12")
- o 2" (default)

Astragal stile o 1 5/8"

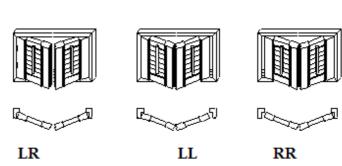
- o 2"

Panel Configurations

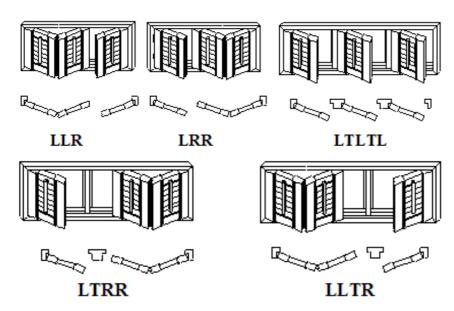




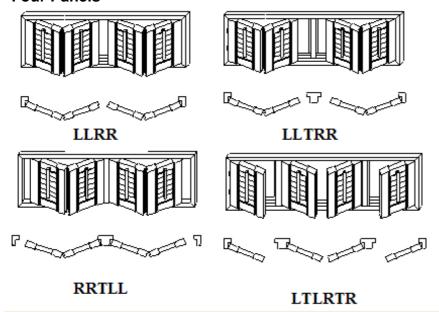
Two Panels



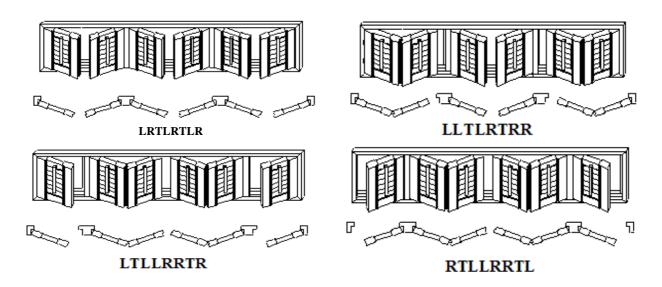
Three Panels



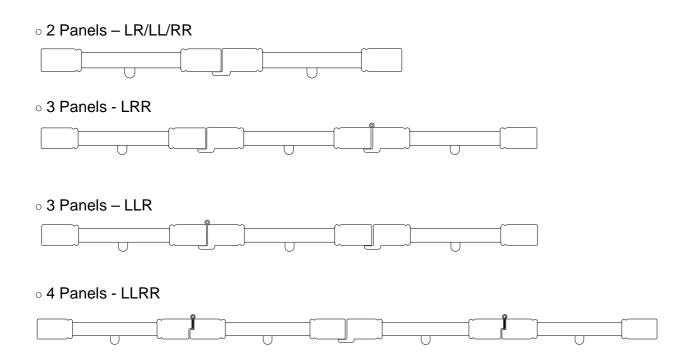
Four Panels



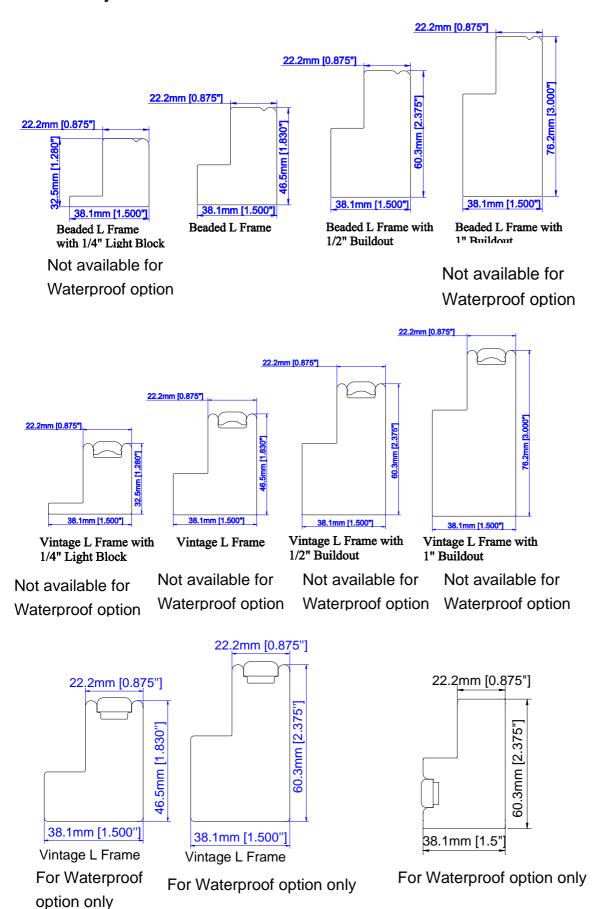
Six Panels



Panel Configurations - Astragal Stile

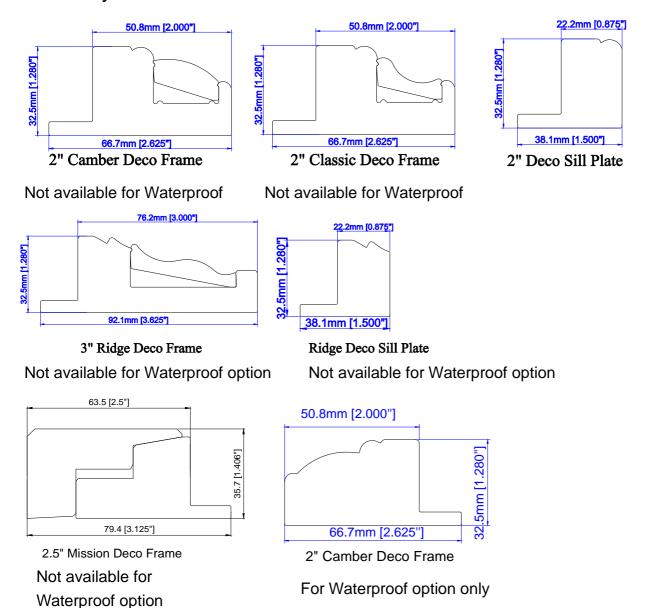


Frame Styles



Note: Standard 1" extension for L frame for Waterproof option.

Frame Styles



There are 2 options for the Deco frame installation when Window Size is given (Take Camber Deco frame as an example)

1. Default: light block part install into the window opening;

The window size is the exact size of the window opening;

The MFF size is the measurement of the entire shutter, including the frames;

The MFF size =Window Size + Face Width



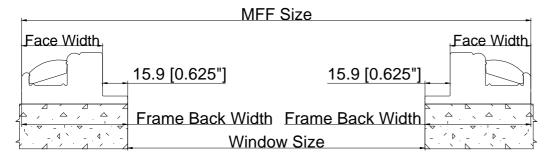
2. Optional: light block part flush with window opening.

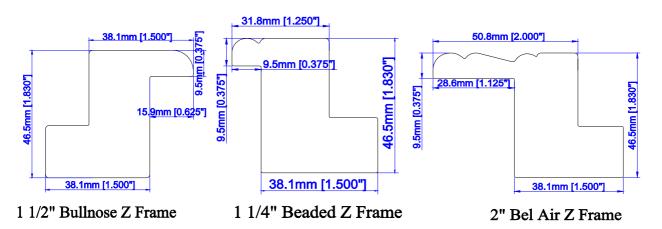
Frame Styles

The window size is the exact size of the window opening;

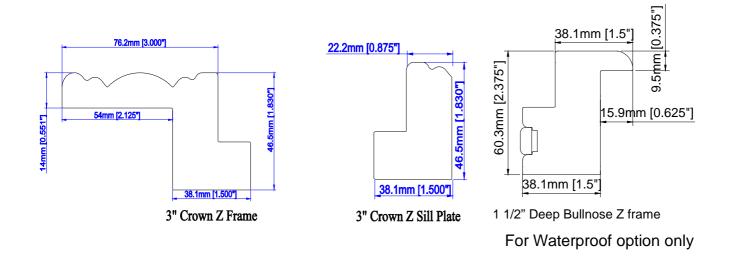
The MFF size is the measurement of the entire shutter, including the frames;

The MFF size = Window Size + Frame Back Width

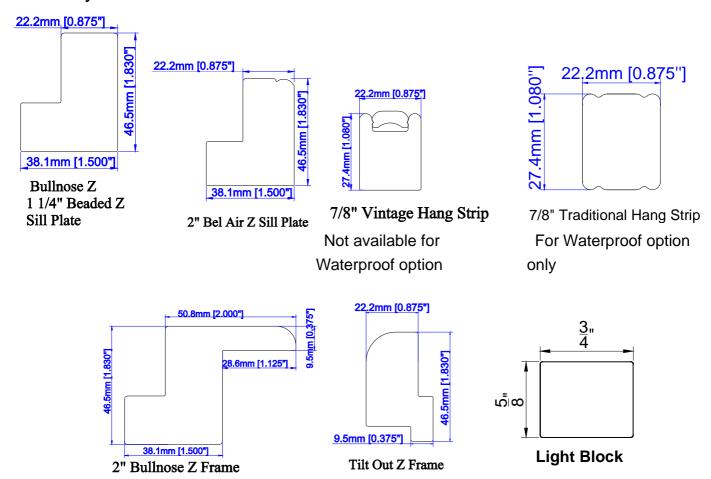




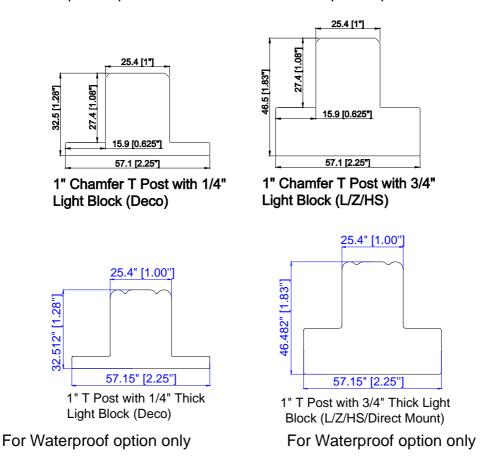
Not available for Waterproof option



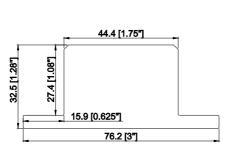
Frame Styles



Not available for Waterproof option Not available for Waterproof option

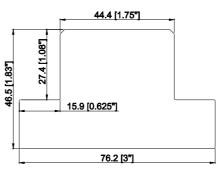


Frame Styles



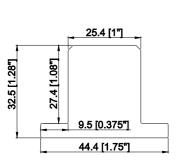
1.75" Chamfer T Post with 1/4" Light Block (Deco)

Not available for Waterproof option



1.75" Chamfer T Post with 3/4" Light Block (L/Z/HS)

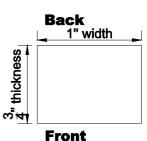
Not available for Waterproof option



1" Chamfer T Post with 1/4" Thick x 3/8" Wide Light Block (Deco)

9.5 [0.375"]

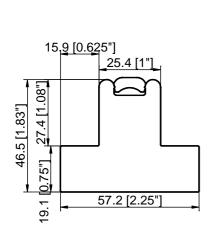
1" Chamfer T Post with 3/4" Thick x 3/8"Wide Light Block (L/Z/HS)



1" * 3/4" Post(No light block)

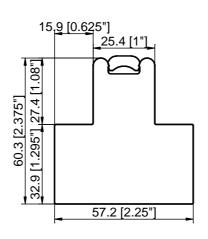
Not available for Waterproof option

Not available for Waterproof option



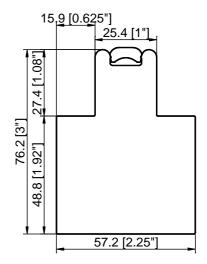
1" T Post with Insert with 3/4" Light Block

Not available for Waterproof option



1" T Post with Insert with 1 5/16" Light Block

Not available for Waterproof option



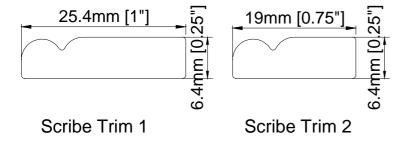
1" T Post with Insert with 1 15/16" Light Block

Not available for Waterproof option

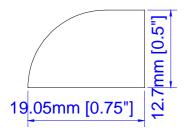
- Custom width up to 7½ "for T Posts (Made of Wood), and not available for Waterproof option
 - Size limits (7 1/2")
 - •Available for composite but it will be made from wood for non-Waterproof option;
 - •That a surcharge applies and customers should refer to their shutter pricing
 - Any limitations

Frame Styles

Note: The 1"x3/4" Post (No Light Block) is only available for Direct Mount. And no hardware will be supplied to install it on the existing window opening.



Note: Scribe Trim 1 & Scribe Trim 2 will be made of wood for non-Waterproof option; Scribe Trim1 & Scribe Trim 2 will be made of Woodlore plus waterproof for Waterproof option.

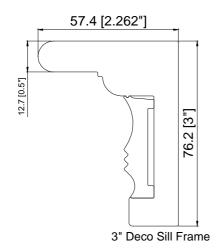


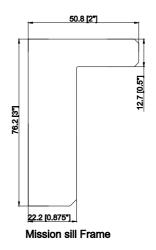
Quarter Round

Not available for Waterproof option

Note: Quarter Round will be made in Wood for non waterproof option.

Sill Frames- For use where there is no existing sill



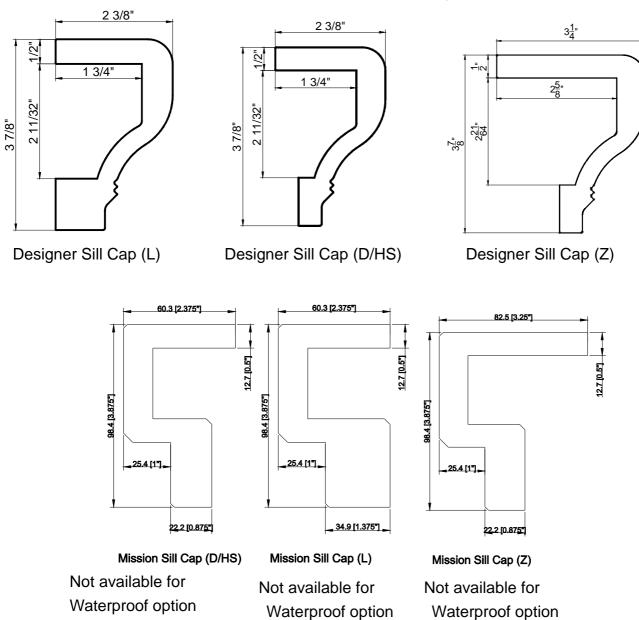


Not available for Waterproof option

Not available for Waterproof option

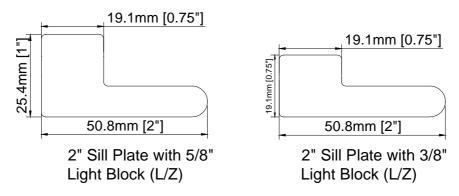
Frame Styles

Sill caps-Used to cover existing sills

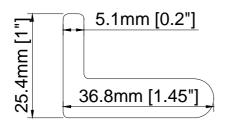


Note: For Mission Sill Cap, the extended size at each side needs to be 1" at least.

Sill Plates- Used with existing sills

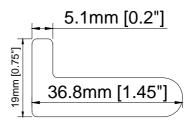


Frame Styles



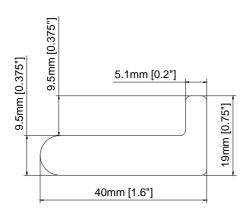
1.5" Sill Plate with 5/8" Light Block (Camber Deco)

For Waterproof option

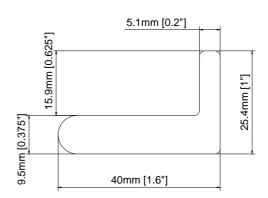


1.5" Sill Plate with 3/8" Light Block (Camber Deco)

For Waterproof option



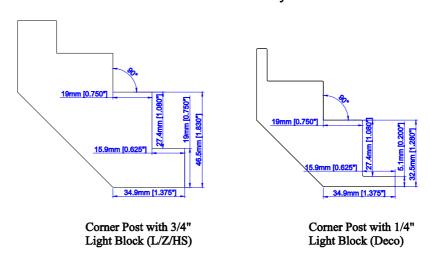
1.6" Sill Plate with 3/8" Light Block



1.6" Sill Plate with 5/8" Light Block

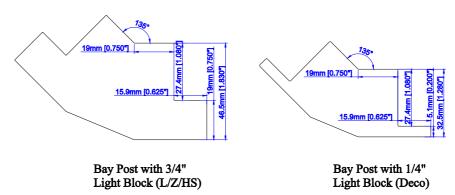
(All Deco & L frames with 1/4" light block) - For Non-waterproof option

Standard Corner & Bay Posts



^{*}Notch out corner post required if ordering Z Frame with solid drywall corner.

Frame Styles

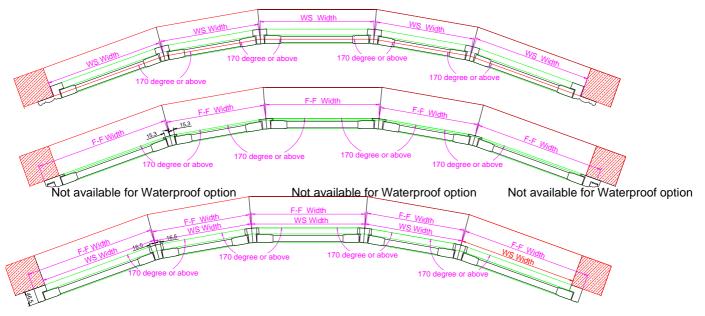


Also available

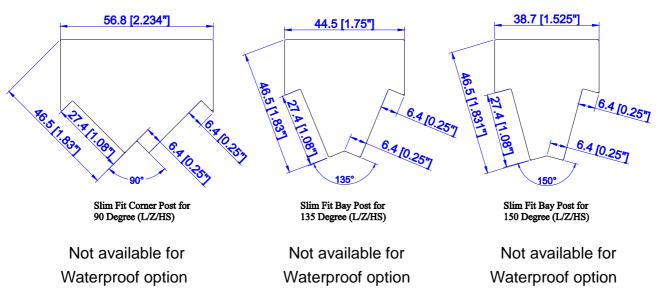
Custom angle bay posts*

For bay window at 170 degree or above

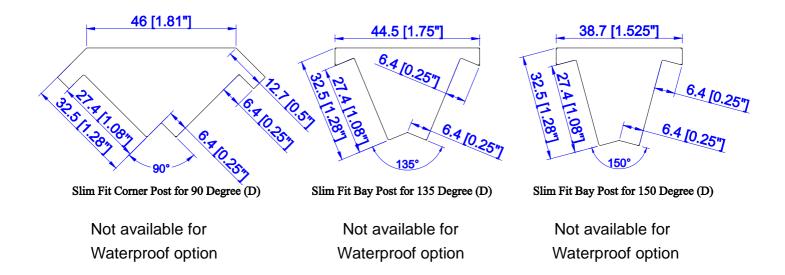
- > 1" T Post with 3/8" light block will be used as Bay post;
- For Hang Strip (Behind Panel) and Waterproof option, bay post will be used.



Slim Fit Corner & Bay Posts



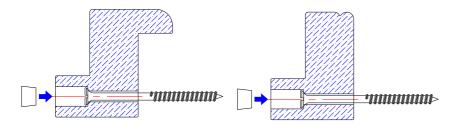
Frame Styles



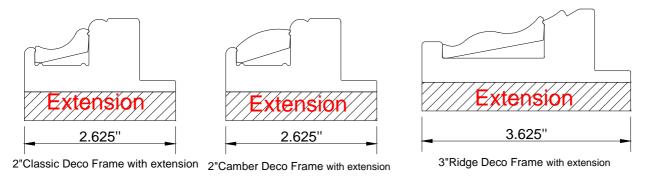
Note: Due to size and weight limitations, Slim Fit Posts may only be hinged on one side and with a single panel (no bi-folded panels). Please consider this when determining panel configuration.

- Slim Fit Posts are available in 90, 135 and 150 Degrees only.
- All Bay posts, Corner posts and Slim Fit Posts are made of Wood for non-Waterproof option;
 All Bay posts & Corner posts are made of ABS for Waterproof option.

Pre-drill L Frames (Inside Mount Only) or Z frames:



Extension for Deco Frame* (Default to have full extension):



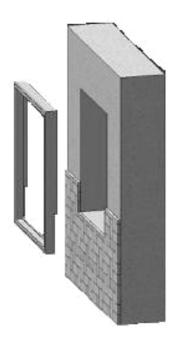
Note: When the extension thickness of the frame & T post is more than 2", the extension will not be attached with the frame and T post.

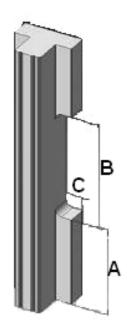
Frame Styles

Notch out*:

- o L Frame
- o T Post

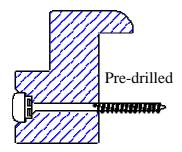
Specify dimensions in special instruction box.



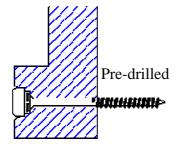


Default principles:

- 1. The coordinating T-post for 1 1/2" Deep Bullnose Z frame & Deep Plain L frame will be 1" Chamfer T post W 1/4" light block (Deco) or 1" T post W 1/4" light block (Deco), T-post light block depth more than 1/4" is not available.
- 2. 1 1/2" Deep Bullnose Z frame & IM Deep Plain L frame will **NOT** be pre-drilled unless Pre-drilled "Yes" was specified in the order.







Deep Plain Lframe

- 3. OM Deep Plain L frame will **NOT** be pre-drilled.
- 4. Regarding shutter with horizontal T-post type issue:

Frame Styles

- 1). If Woodlore Plus-Waterproof with **Beaded** vertical T-post is selected, the horizontal T-Post type will be a Beaded T post; Otherwise, horizontal T-Post type will always be Chamfer T post by default.
- 2). For Woodlore Plus-non Waterproof, Horizontal T-Post type will always be the Chamfer T post unless otherwise specified.

General Product Specifications

Description	Minimum	<u>Maximum</u>	
<u>Description</u>		Non-Waterproof Option	Waterproof Option
Single Panel Width (Regular)	6"	24" for 1 1/8" louver 36" for 21/2 ", 3", 31/2", 41/2" louver	24" for 1 1/8" louver 31" for 21/2 ", 3" louver 36" for 31/2", 41/2 " louver
Single Panel Width (Bifold)	6"	24"	24"
Single Panel Width (Bifold Track)	6"	24"	24" for 1 1/6" louver 26" for 21/2 ", 3", 31/2", 41/2" louver
Single Panel Height	10"	120"	
Shutter Width (Without T Post)	N/A	4x single panel width (bifold) + frame	
Shutter Width (With T Post)	N/A	Unlimited (For orders shipped by sea, frames longer than 142" will be spliced in the middle. For orders shipped by air, frames longer than 120" will be spliced in the middle.)	
Shutter Height	N/A	120" + frame	

Divider rail is required for panel heights over 78" for non-waterproof option. Divider rail is required for panel heights over 72" for waterproof option. Standard divider rail size is 3".

Please note the standard top/bottom rail size should be within 2.75"~6.5". For regular shutters, the step for the rail size is 1/8".

Shutters without bottom supports

Shutters without bottom supports may sag and deform, including situations below:

- 1. Shutters with bottom gap over 0.1";
- 2. Shutters with no frame or no existing sill at the bottom to support the panel (or shutter has bottom frame/existing sill, but the panel is frequently left in the open position without bottom support).

Therefore, we strongly discourage the use of shutters for this application. We will continue to manufacture these shutters; however, they will not be covered under our warranty and will be subject to the guidelines listed below:

All Woodlore plus panel configurations:

- You must inform Norman Window Fashions of situations where shutters will not have bottom support when placing the initial order.
- Informing Norman when placing such orders ensures that the factory will add extra hinges to support the panel. This will reduce the probability of the panels sagging and increase shutter integrity. You must release Norman Shutters from liability in these situations.
 - •If you fail to notify Norman that the shutter will be used without bottom support, this will constitute a misapplication of the shutter. Consequently, you will be responsible for the cost of any RGA that is submitted.
- If you want a bifold shutter, a track must be ordered to support the panels. Without a track, Norman will not manufacture the order even with liability waived.

Side by Side / Match Line Number:

When **Side by Side** is selected, it is solely to match top or bottom rails and the number of hinges will also be matched when the panel heights are within +/- 2". When selected, the option to match with another line number or previous work order is solely for matching the top or bottom rails. Neither option will be used to match any other specifications.

Tilt Rods

Standard Tilt Rod

Default Location: In the middle of the panel on front side (default).



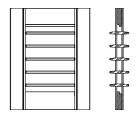
Offset Tilt Rod*

Default Location: On the front side of the panel and at 1" from the louver ends on the hinged side.

Optional location: per your request



InvisibleTilt™ *



Louver tilting system embedded within panel stile. It is not available for $1^7/8$ " louver. The tilting system is split when the number of louvers exceeds the limits as listed below:

Louver Size	Maximum Possible Louvers	Panel Height Range
2½"	24	54 3/4" – 57 1/4"
3"	19	54 1/4" – 57"
31/2"	16	54 3/4" – 58"
41/2"	12	54 3/4" - 60"

For even numbers of louvers, the number of louvers operated by the top and the bottom tilting system will be the same;

For odd numbers of louvers, the number of louvers operated by the bottom tilting system will be one more than the number of louvers operated by the top tilting system;

To ensure split tilt is included, always specify on the order.

Split Tilt

When selected, the louvers are split evenly by default unless a custom location is requested.

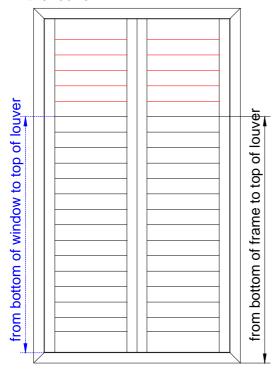
When the customer selects a custom location, the measurement will be as follows (please note that the louvers are in the closed position when measured):

Window size:

Measure from the bottom of the window to the top of the louver

Max frame-to-frame:

 Measure from the bottom of the frame (or panel if there is no bottom frame, sill or sill cap) to the top of the louver.



Split tilt allowable deviations

Louver Size	Allowable <u>+</u> Deviation	
1 7/8"	3/4"	
2½"	1"	
3"	1 1/4"	
3½"	1½"	
4½"	2"	

Split Location:

— Per the customer's specification. However, the location of the top louver of the bottom split section may be adjusted to achieve more balanced top and bottom rails when **allow deviations** is selected during order entry. If necessary the location will be moved up from the desired height to ensure any obstruction is covered. The amount of the deviation from the desired height will depend on the size of the louver selected.

If the exact location of the split is critical, customer may select **exact location** in the order entry system when placing the order. This may result in significantly different top and bottom rails. When exact location is selected, a popup will reveal the resulting top and bottom rails measurements from which the customer may either:

- 1. Accept the listed top and bottom rail sizes
- 2. Modify the split location (sometimes a slight adjustment in the exact split location may achieve desired top and bottom rail sizes)
- 3. Change to **allow deviations** so the system will calculate the split location

Note: Top and bottom rail sizes may change if the current line item is being matched with another line item. Carefully review all top and bottom rail sizes and split locations to ensure a desirable look is achieved

Divider Rails

A divider rail is an extra rail in the middle of the panel.

Creates two sections in the panel so louvers can be operated independently.

Strengthens the panel and enhances structural integrity.

Required for panel heights over 78" for non-waterproof option.

Required for panel heights over 72" for waterproof option.

Specifications

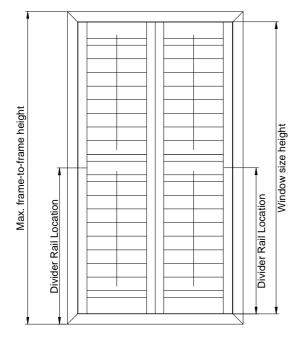
Standard size: 3"

Default location: center of the panel unless specified otherwise

Measurements:

- Window size:
 - Measure from the bottom of the window to the center of the divider rail.
- Max frame-to-frame:
 - Measure from the bottom of the frame to the center of the divider rail.
- Position:
 - Per customer's specification. However, the divider rail may be adjusted to a lower or higher position, within our allowable deviation, to ensure reinforcement and aesthetics of the shutter.

When placing the order, please clearly specify if the divider rail position needs to line up with that of other shutter divider rails in the same room. Please also refer to the table below for the allowable deviation details.



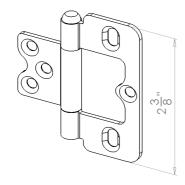
Divider rail allowable deviations

Louver Size	Allowable <u>+</u> Deviation	
17/8"	3/4"	
2½"	1"	
3"	1 1/4"	
3½"	1½"	
4½"	2"	

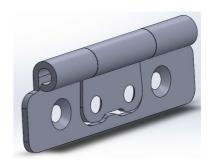
Hardware

Hinges

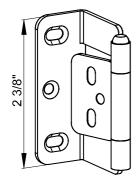
Self-Mortise Hinge



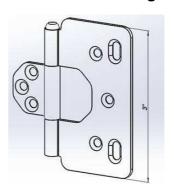
Bi-fold Hinge



L Hinge



Direct Mount 3" Hinge



Hinges are available in:

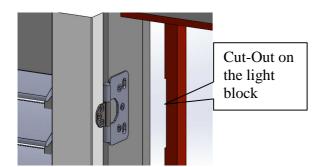
Pure White, Silk White, Bisque, Pearl, Bright Brass, Antique Brass, Black, Nickel plated, Brushed Nickel, Stainless Steel*, Crisp Linen, String, Sea Mist, Stone Gray, Brown Gray, Taupe Gray.

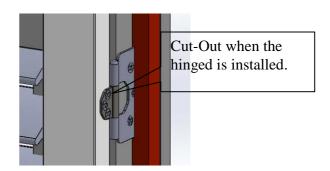
While hinge colors of Crisp Linen, String, Sea Mist, Stone Gray, Brown Gray, Taupe Gray are not available for Direct mount 3" Hinges.

For Waterproof option, regular hinges are only available in Stainless Steel, and Sleeve & Base Plate will be used as catches. Invisible hinges are only available in Pearl-Chrome Plated.

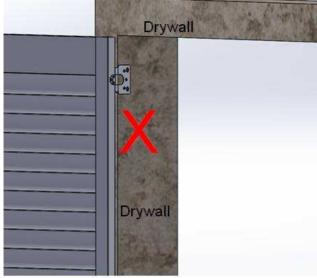
➤ Direct Mount 3" Hinge:

- 1. The hinge position of the direct mount 3" hinge will be different from that of the 2.375" ones. For shutters used both the 2.375" and the direct mount 3" hinge, the hinge position of the 2.375" ones will match that of the direct mount 3" hinge;
- 2. The hinge is only to install between the panel and the existing window. For other situation, 2.375" hinges will be used;
 - 3. To avoid confliction, there will be cut-out for the light block of the hinged side. Please refer to the drawing below.

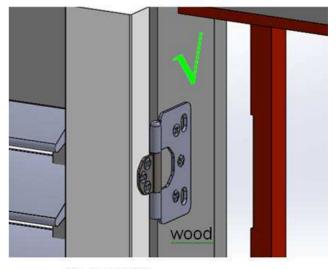




4. Direct Mount 3" Hinge is not suitable for drywall installations.



Direct Mount 3" hinge is not suitable for drywall installations. It's not recommended.



It's acceptable.

Invisible Hinge*:



- Invisible hinge is not available for Multifold panels.
 Invisible hinge can only be between the panel & frame/T post, connections from panel to panel will use a regular hinge.
- 3. Color Option: Only available for Pearl Chrome Plated.

Frame Options	Hinge	Notes
2" Camber Deco Frame	Υ	/
2" Classic Deco Frame	Υ	/
2.5" Mission Deco Frame	N	/
3" Ridge Deco Frame	N	/
Vintage L Frame W / 1/4" Light Block	N	/
Vintage L	N	/
Vintage L Frame w/ 1/2" Buildout	N	/
Vintage L Frame w/ 1" Buildout	N	/
Beaded L w 1/4"light block	Υ	/
Beaded L	Υ	/
Beaded L Frame w/ 1/2" Buildout	Y	/
Beaded L Frame w/ 1" Buildout	Υ	/
Tilt out Z Frame	N	/
1.25" Beaded Z Frame	Υ	/
2" Bullnose Z Frame	Υ	/
1.5" Bullnose Z Frame	Υ	/
2" Bel Air Z Frame	Υ	/
3" Crown Z Frame	N	/
7/8" Vintage Hang Strip	N	/
Traditional Hang Strip (beside the panel)	Υ	/
1" T-Post w/ 1/4" Light Block(for Deco)	Υ	
1" T-Post w/3/4" Light Block(for L/Z/HS)	Υ	
1" Chamfer T-Post w/ 1/4" Light Block(for Deco)	Υ	only available with hinge on one side, for example, LTL is available, but RTL is not.
1" Chamfer T-Post w/3/4" Light Block(for L/Z/HS)	Υ	avaliable, but INTE IS HUL.
1" Chamfer T-Post w/ 1/4" thick 3/8" wideLight Block(for Deco)	Υ	

1" Chamfer T-Post w/3/4" thick 3/8" wide Light Block(for L/Z/HS)	Y	
1 3/4" Chamfer T-Post w/1/4" Light Block(for Deco)	Y	available with hinge on BOTH
1 3/4" Chamfer T-Post w/3/4" Light Block(for L/Z/HS)	Υ	side, for example, RTL.
Corner Post w/1/4" Light Block(for Deco)	Υ	/
Corner Post w/3/4" Light Block(for L/Z/HS)	Υ	/
Bay Post w/1/4" Light Block(for Deco)	Υ	/
Bay Post w/3/4" Light Block(for L/Z/HS)	Y	/

Invisible Hinge Qty:

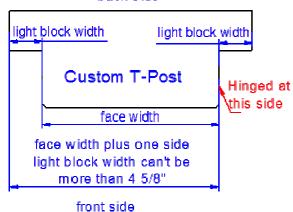
Panel Height (H)	Hinge Qty
H<=48"	2
48" <h<=78"< td=""><td>3</td></h<=78"<>	3
78" <h<=96"< td=""><td>4</td></h<=96"<>	4
96" <h<=120"< td=""><td>5</td></h<=120"<>	5

Preinstallation:

Panels and frames will be packaged individually, and the hinge is preinstalled onto the frame/post, with the screws for the other half part on the panels in the hardware box.

Note: If Custom T-posts need to install Invisible Hinge, the size of Custom T-post face width plus one side light block width can't be more than 4 5/8"; Please see drawing for reference.

back side



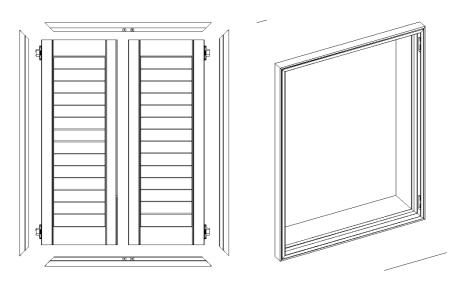
^{*}Some surcharges apply

Installation Instructions for the Invisible hinges Take L Frame as an example:

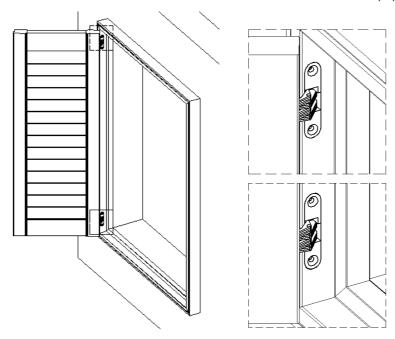


1). Remove the corresponding panels and frames from their packaging and match the panels with the correct frames.

Install the frames on the corresponding windows and make sure they are square (diagonals are equal)



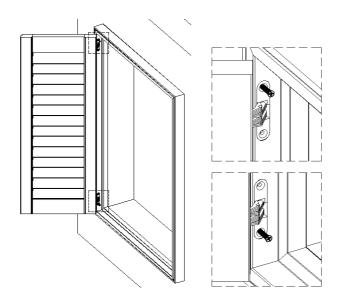
2). Please insert **ALL of** the Invisible hinges on the panel into the hinge holes on the corresponding frames prior to trying to secure any single hinge. This may require the assistance of a second person to hold the panel to prevent the hinges from sliding out of their slots while the screws are secured (Do not let the panels hang from just one hinge).



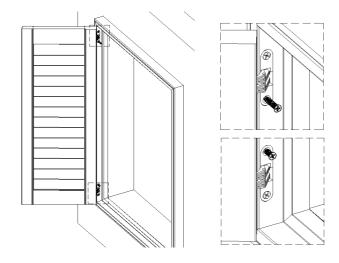
3).To properly secure the panels, first please tighten the upper screw of the uppermost top hinge and the lower screw of the lowest hinge. Close the panel to check whether the shutter closure is normal and the gap is uniform.

Note:

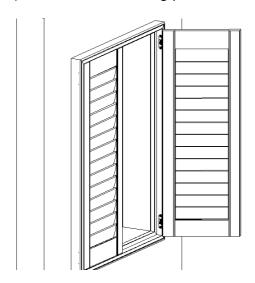
- a) When locking the screw, again it is important to prevent the invisible hinges from sliding out of their slots.
- b) Only the screws provided in the hardware box may be used and they cannot be replaced by other screws.



4). When the closure gap is uniform, secure the remaining screws.



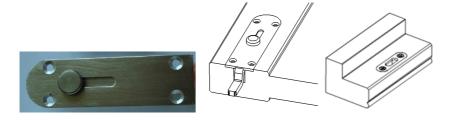
5). Install the remaining panels in the same manner.



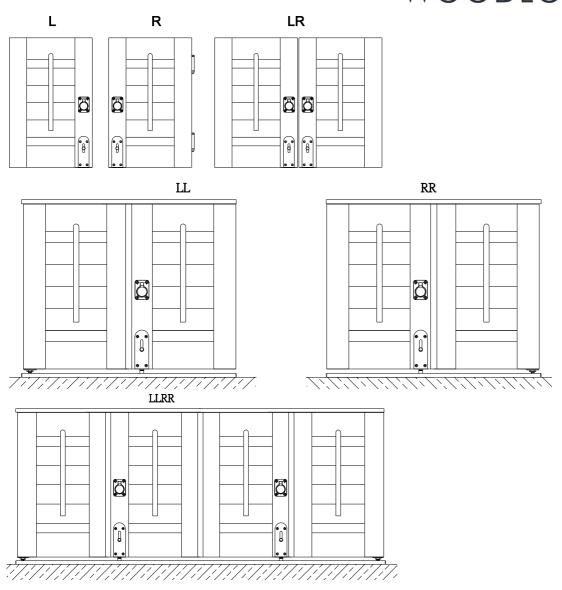
Panel Lock: (not available for 1.625" Stile)

Available Material: All

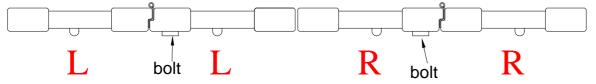
Color: Brush Nickel Plated



Position: (Only available on Bottom for Track Shutters with Bottom Track; For Regular, available on Top/Bottom/both Top and Bottom)

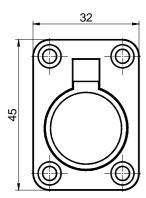


The Panel Lock location for both track system shutters and regular shutters would be the same. The general principle is that the Panel Lock position will avoid the stile which will install the spring-loaded guide at bottom (same stile as the Wheel carrier).



Ring pull: for easy opening and closing. (Not available for 1.625" Stile)

Available in all shutter programs.



Ring pull location principle for Floating Panels:

- 1. When floating panel config is in pairs, it will be split into halves, the left will be for LL and the right will be for RR. So the ring pull location for FF/FF, FF/FF/FF will be same as that of panel config as LL/RR, LL/LL/RR/RR.
- 2. When floating panel config is FF, the ring pull location will be same as that of panel config LL.
- 3. When floating panel config is singular, it will be split into 3 sections, the left and mid sections are for LL and the right section is for RR. So the ring pull location for FF/FF/FF, FF/FF/FF/FF will be same as that of LL/LL/RR, LL/LL/LL/RR/RR.

Please note the ring pull color will match with the hinge color. When shutter order with Invisible Hinge, the ring pull color will match with the normal hinge color. Please see the matching chart below:

Hinge color	Pure White		Bisque	Pearl	Black	Nickel Plated	Brushed Nickel	Antique Brass	Bright Brass	Stainless Steel
Ring Pull color	White	White	Bisque	Pearl	Black	Brushed Nickel	Brushed Nickel	Antique Brass	Bright Brass	Brushed Nickel

Hinge color	Crisp Linen	String	Sea Mist	Stone Gray	Brown Gray	Taupe Gray
Ring Pull color	Bisque	Bisque	Brushed Nickel	Brushed Nickel	Brushed Nickel	Brushed Nickel

For non-waterproof option:

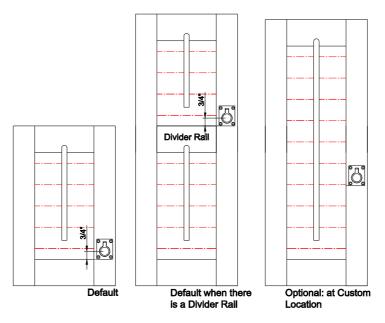
Color ID	Color Name	2.375"Hinge color (Default)	Direct Mount 3" Hinge color (Default)	T-post connector color	Ring pull color	Invisible hinge color	New Top & Bottom Tracks color (Default)	Hoffman Key Color (Default)	
001	Pure White	Pure White	Pure White	Pure White	White		Bright White	White	
002	Extra White	Silk White	Silk White	Silk White	White		Bright White	<mark>White</mark>	
003	Silk White	Silk White	Silk White	Silk White	White		Bright White	<mark>White</mark>	
004	Bright White	Silk White	Silk White	Silk White	White		Bright White	<mark>White</mark>	
006	Pearl	Pearl	Pearl	Pearl	Pearl		Bright White	<mark>White</mark>	
007	Ivory Lace	Bisque	Bisque	Bisque	Bisque		Metallic Gray	<mark>White</mark>	
009	Creamy	Pearl	Pearl	Pearl	Pearl		Bright White	<mark>White</mark>	
012	Crisp Linen	Crisp Linen	Bisque	Bisque	Bisque		Metallic Gray	<mark>White</mark>	
016	Butter	Crisp Linen	Bisque	Bisque	Bisque		Metallic Gray	White	
019	String	String	Bisque	Bisque	Bisque		Bronze	White	
030	Moondust	Soc Mict	Nickel	Nickel	Brushed		Metallic	Transparant	
030	Moondust	Sea Mist	Plated	Plated	Nickel		Gray	Transparent	
032	Sea Mist	Sea Mist	Nickel	Nickel	Brushed		Metallic	White	
032	Sea Mist	Sea Mist	Plated	Plated	Nickel		Gray	vvriite	
042	Hall Gray	Sea Mist	Nickel	Nickel	Brushed		Metallic	White White	
042	I lali Gray	Sea Wilst	Plated	Plated	Nickel		Gray		
046	Ice	Silk White	Silk White	Silk White	White		Bright White	<mark>White</mark>	
048	Chai	Nickel	Nickel	Nickel	Brushed	Pearl	Bronze	Transparent	
0-10	Orial	Plated	Plated	Plated	Nickel	Chrome	BIOIIZO	Transparent	
049	Stone Gray	Stone Gray	Nickel	Nickel	Brushed	Plated	Bronze	Transparent	
0.10	Cione Cray	Cione Gray	Plated	Plated	Nickel		5101120	тапэраген	
051	Brown Gray	Brown Gray	Nickel	Nickel	Brushed		Bronze	Transparent	
	Drawn Gray	, and the second	Plated	Plated	Nickel		2.020	- Tanoparoni	
053	Clay	Nickel	Nickel	Nickel	Brushed		Bronze	Transparent	
		Plated	Plated	Plated	Nickel				
063	Decorators White	Silk White	Silk White	Silk White	White		Bright White	<mark>White</mark>	
066	Winchester White 2010	Pearl	Pearl	Pearl	Pearl		Metallic Gray	<mark>White</mark>	
073	Sky Gray	Silk White	Silk White	Silk White	White		Bright White	White	
	Element	Coo Mist	Nickel	Nickel	Brushed		Metallic	White	
074	Gray	Sea Mist	Plated	Plated	Nickel		Gray	vvriite	
075	Storm Gray	Sea Mist	Nickel Plated	Nickel Plated	Brushed Nickel		Metallic Gray	Transparent	
077	Dawn	Silk White	Silk White	Silk White	White		Metallic Gray	White	
078	Cloud Blue	Silk White	Silk White	Silk White	White		Metallic Gray		
080	Taupe Gray	Taupe Gray	Nickel Plated	Nickel Plated	Brushed Nickel		Metallic Gray	White	
836	Classic Black	Black	Black	Black	Black		Bronze	Black	

For waterproof option:

Color ID	Color Name	Regular Hinge color (Default)	Ring Pull color	Invisible hinge color (Default)	Hoffman Key Color (Default)
001	Pure White				White
002	Extra White				White
003	Silk White				White
004	Bright White				White
006	Pearl				White
007	Ivory Lace				White
009	Creamy				White
012	Crisp Linen				White
016	Butter				White White
019	String	=			White
030	Moondust				Transparent
032	Sea Mist				White
042	Hall Gray				White
046	Ice	=			White
048	Chai	Stainless Steel	Brushed Nickel	Pearl Chrome Plated	Transparent
049	Stone Gray				Transparent
051	Brown Gray				Transparent
053	Clay				Transparent
063	Decorators White				White
066	Winchester White 2010				White
073	Sky Gray				White
074	Element Gray				White
075	Storm Gray	1			Transparent
077	Dawn	1			White
078	Cloud Blue	1			White
080	Taupe Gray	1			White
836	Classic Black	1			Black

- Please note that the color options for Pin / Tension gear are White and Coffee; For orders with Custom Paint colors, please select the desired Pin/ Tension gear color when placing an order.
- When the bottom track colors are bright white and metallic gray, the default spring loaded guide color will be white; When the bottom track color is bronze, the default spring loaded guide color will be coffee.

Position: For different panel configuration, please refer to the location of Panel Lock to show on which stile the pull will be fixed.

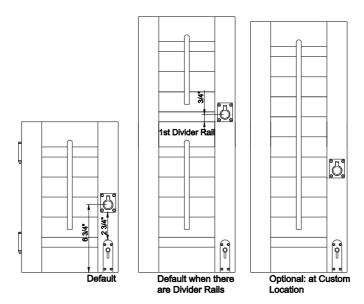


Position:

- A. Above Bottom Rail (Default)
- B. Above 1st Divider Rail (Default when there are Divider Rails)
- C. Custom Location

If both Panel Lock & ring pull are specified, the distance between them is 2 3/4", and the ring pull location is 6 3/4" from the bottom of panel.

When there is no mid rail, ring pull will be just on the top of Panel Lock (2 3/4" above Panel Lock) as default location; if there are mid rails, bottom of ring pull lines up with top of the 1st mid rail as default location.



Position:

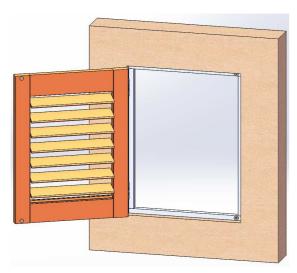
- A. 2 3/4" Above Panel Lock (Default when both Ring Pull and Panel Lock are specified)
- B. Above 1st Divider Rail (Default when there are Divider Rails)
- C. Custom Location

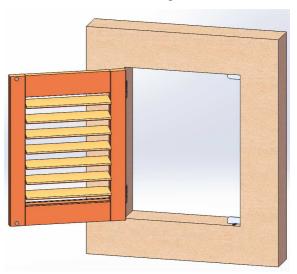
Measurements:

- Window size:
 - Measure from the bottom of the window to the center of the ring pull.
- Max frame-to-frame:
- Measure from the bottom of the frame to the center of the ring pull.

Mount Options for Direct Mount (non waterproof option):

Light block L magnet catch







10mm Round Magnet without screw hole (recessed into panels); Not available for Waterproof option.



Round Magnet Catch (installed on light blocks); Not available for Waterproof option.

L Magnet Catch (sill magnet catch): used for catching the magnets when ordering panels without light blocks. Not available for Waterproof option.



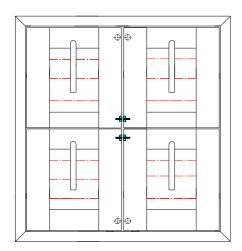
Side Magnet: Not available for Waterproof option

Available for Butt, rabbet and Astragal stile



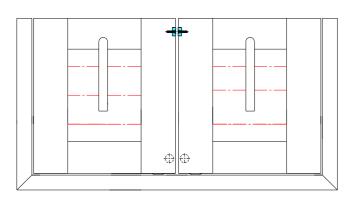
Side Magnets will be applied in following situation:

Double Hung shutter but without horizontal T post:
 Side magnets will be applied to the meeting stiles of the L and R panel. (Default)



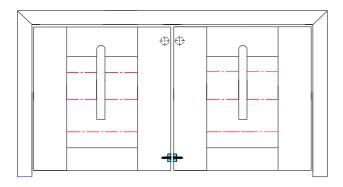
2. Café Shutter

Side magnets will be applied to the meeting stiles of the L and R panel. (Default)



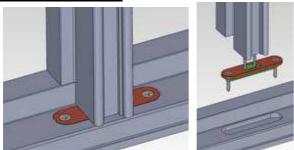
3. No frame or light block or L-shape striker plate on either top or bottom, or if larger than standard top or bottom gap is requested.

Side magnets will be applied to the meeting stiles of the L and R panel. (Optional)



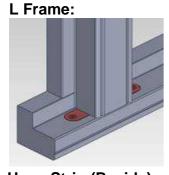
4. Note: if panels only with side magnets and there is no standard magnet on the back of panels, panels may open for external factors.

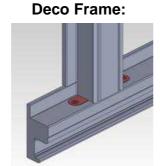
T-Post Connector

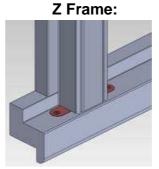


- . Available colors: Pure White; Silk White; Pearl; Bisque; Black; Nickel-Plated.
- Available for all types of T Posts (custom-width T posts excluded).

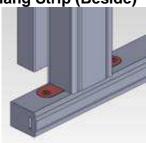
T Post Connector can be used with the following Frames.







Hang Strip (Beside)



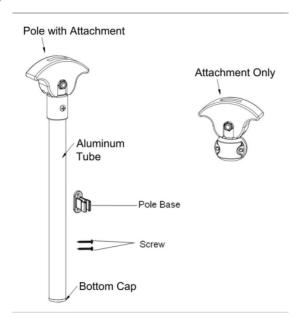
Note:

1. For Horizontal T Post, Hang Strip (Behind) and shutter with 1.5"/2" Sill, T Post connector is not available and T Post will be installed by screws instead;

- 2. If there is a panel lock or sleeve & base plate which may interfere with the T-Post connector, all the T-Posts for the entire shutter will be installed with screws and the frames to be pre-drilled, even in cases where the panel lock may only interfere with one T-Post;
- 3. T post connectors can only be installed on a straight piece, and screws will be used instead for T Post installed on a curved or raked piece.
- 4. The screw color is Stainless Steel for Waterproof shutter regardless of the color of the T Post connector:
- 5. The screw color is Nickel Plated for Non-Waterproof shutter regardless of the color of the T Post connector:

Optional Poles:

1. Terminology



Component

NO.	Name	Note
1	Pole with Attachment	Aluminum Tube, Pole Base and Bottom Cap included *Surcharge applies.
2	Attachment only	 Compatible with extension poles found in most home improvement stores. Screw thread (3/4") and thread pitch (1/5") *Surcharge applies.

2. Available Pole Length

Two lengths available:

- 36"
- 60"

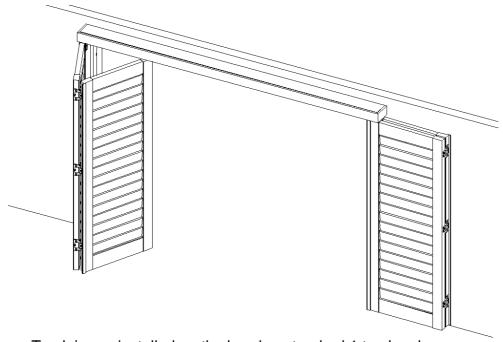
Bi-fold 180TM

Guidelines and Specs:

		<u>Maximum</u>		
<u>Description</u>	<u>Minimum</u>	17/8"	2½"; 3"; 3½"; 4½"	
Single-Panel Width				
(Bi-fold Track)	6"	24"	24"	
for Non-Waterproof option				
Single-Panel Width				
(Bi-fold Track)	6"	24"	26"	
for Waterproof option				
Single-Panel Width (LLL/RRR)	N/A	N/A	N/A	
Single-Panel Height	10"	120"	120"	

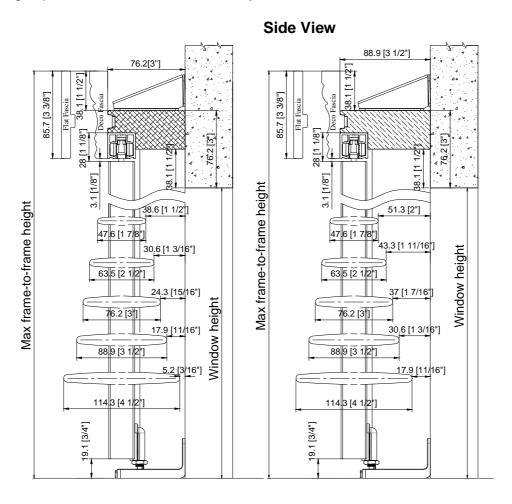
Outside Mount

Max frame-to-frame width: window width + 3 1/2"
Max frame-to-frame height: window height + 4 1/2"

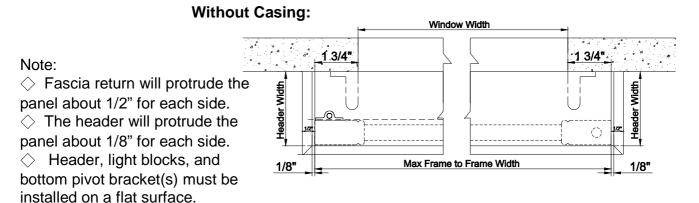


Track is pre-installed on the header; standard 1 track only.

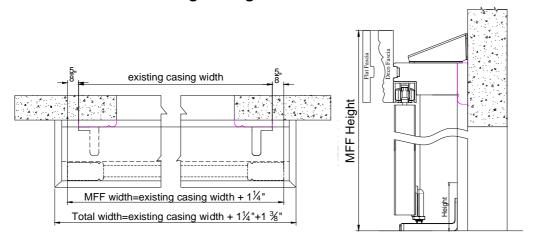
Mounting Options: Outside Mount only



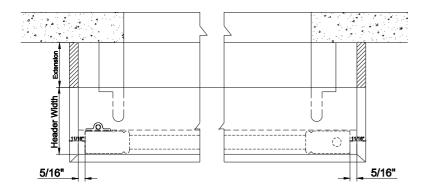
Top View



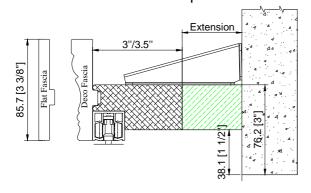
With Existing Casing:



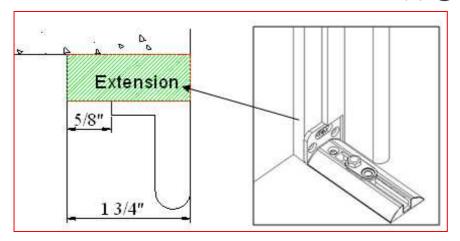
- Header Extension: Optional
- ♦ Custom extension up to 2" for Header
- ♦ When extension is needed, the header will protrude the panel 5/16" for each side and the fascia return will protrude the panel 11/16" for each side.



♦ The extension will be pre-attached.

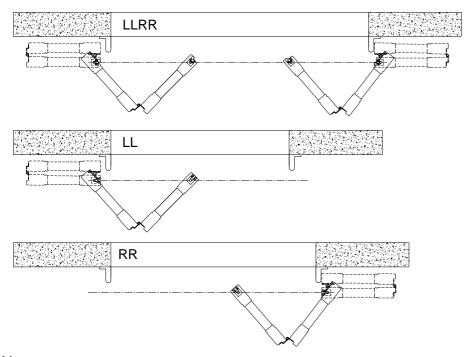


For 180 Bi-fold, if Bottom Pivot L Bracket is required, the extension for the L shape light block will be 1 3/4" in width. Please see picture below:



Panel Configuration:

Only 2", 2 1/4" rabbet and butt stiles are available for non-waterproof option. Only 2" rabbet and butt stiles are available for waterproof option. Center stile is not available.



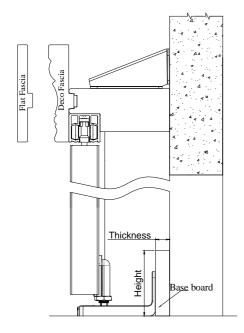
Notes:

If there is no baseboard to the wall, 3" header can be used.

If there is baseboard to the wall, then it should be as below:

- If base board thickness is less or equal to 5/8", 3 1/2" header can be used.
 If base board thickness is over 5/8", it is suggest using the 3" header with build out. And the build out thickness=base board thickness-1/8".

Please see the drawing below:



180⁰ Bi-fold Track Shutters Framing Materials

Туре	Header Dimension	Top Fascia Dimension	L Shape Light Block Strip Dimension
Header &	3"		1 9/16"
Top Fascia & Light Block Strip	3 1/2"	3 3/8"	2 1/16"

180^o Bi-fold Track Shutters Hardware Box

Parts
Wrench
Hinge Pin
Triangle Bracket (based on the length of header)
2" screws for Triangle Bracket
3/4 " screws for Triangle Bracket
Bottom Pivot Bracket
1 ½ " screws for bottom pivot bracket
2 ½ " screws for Frame with predrilled screw holes

Bi-fold 90

Guidelines and Specs:

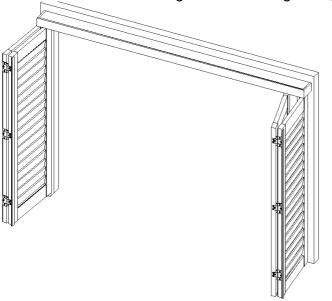
Description	Minimum	<u>Maximum</u>		
<u>Description</u>	<u>wiiiiiiiuiii</u>	17/8"	2½"; 3"; 3½"; 4½"	
Single-Panel Width (Bi-fold Track)	6"	24"	24"	
for Non-Waterproof option Single-Panel Width	011	0.4"	00"	
(Bi-fold Track) for Waterproof option	6"	24"	26"	
Single-Panel Width (Multifold track up to 4 panels)	N/A	N/A	N/A	
Single-Panel Height	10"	120"	120"	

Outside Mount

Max frame-to-frame width: window width + 3 1/2" Max frame-to-frame height: window height + 4 1/2"

Semi-Inside Mount
Max frame-to-frame width: window width - 1/8"
Max frame-to-frame height: window height + 1 3/8"

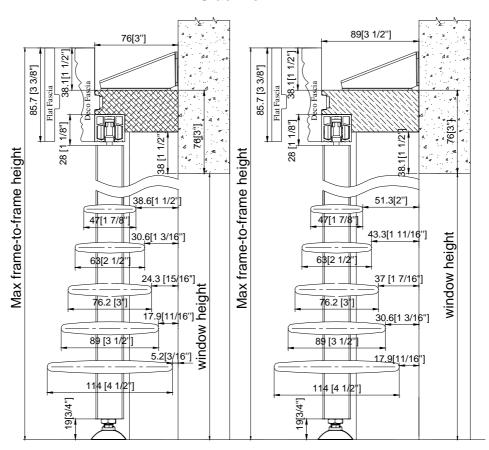
Inside Mount
Max frame-to-frame width: window width - 1/8"
Max frame-to-frame height: window height - 1/8"



Track is pre-installed on the header; standard 1 track only.

Mounting Options: Outside Mount

Side View

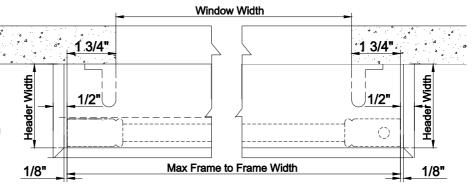


Without Casing:

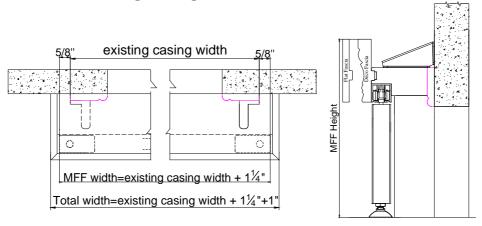
Top View



- Header, light blocks, and bottom pivot bracket(s) must be installed on a flat surface.

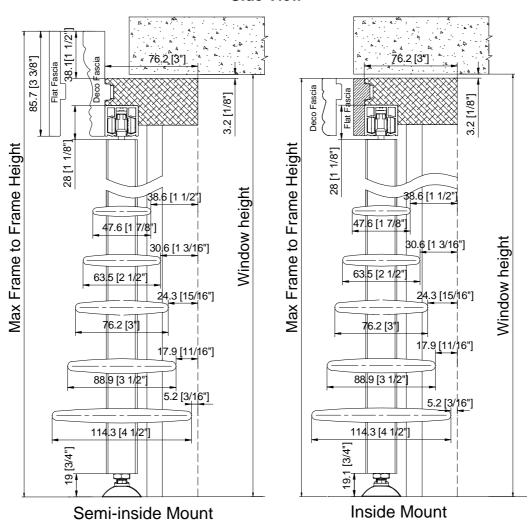


With Existing Casing:

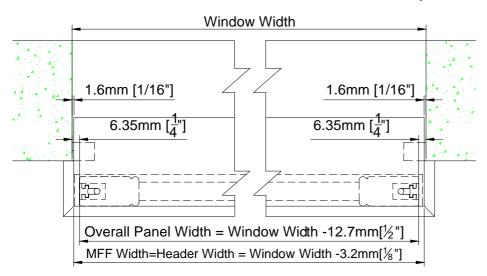


Semi-Inside/Inside Mount

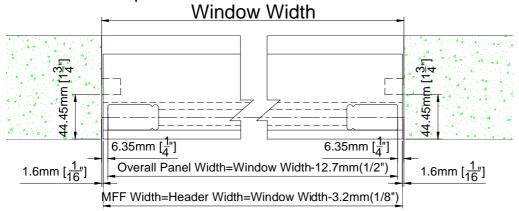
Side View



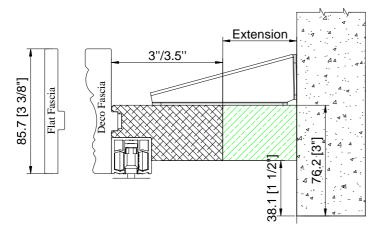
Semi-Inside Mount Top View



Inside Mount Top View



- ♦ Header Extension: Optional.
- ♦ Custom extension up to 2" for Header
- The extension will be pre-attached.



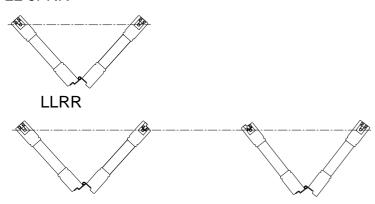
Panel Configuration:

Only 2", 2 1/4" rabbet and butt stiles are available for non-waterproof option.

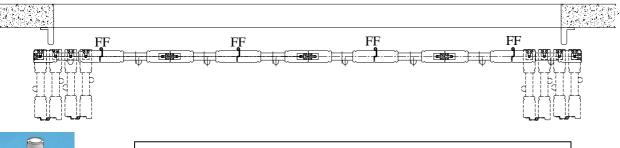
Only 2" rabbet and butt stiles are available for waterproof option.

Center stile is not available.





90⁰ Floating Panels





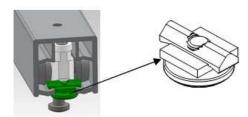
- Two panels can be hinged together, fold and slide to either direction
- Application comes with wheel carrier, spring loaded guide and floor track
- o Can be used on large window

Note:

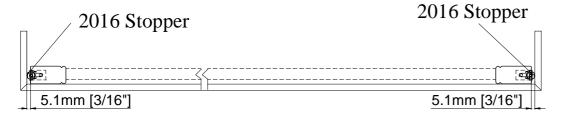
1. For 90⁰ Floating Panels outside mount/semi-inside mount without side boards, the 2016 Stopper will be supplied by default. The gap between the fascia return / end of top track and the panel is 5mm each side.

The 2016 stopper can also be used in the center or any position of the top track as an option.

2016 Stopper

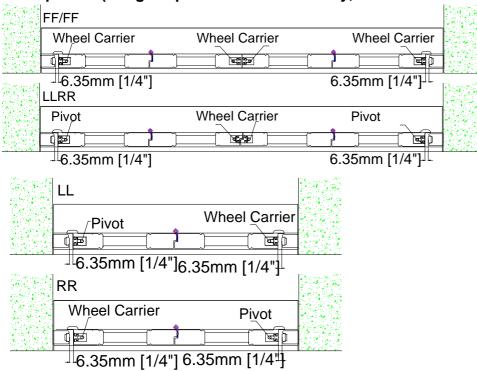


Please see drawing below to show the gap.

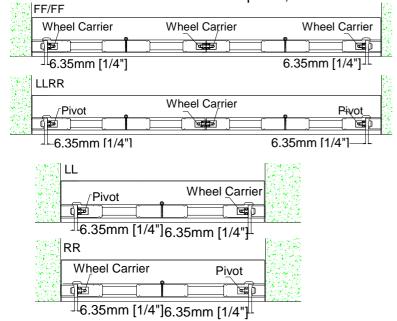


2. When rabbet stile required, the meeting stile of unhinged stile will be butt stile by default.

Optional (Hang Strip for Inside Mount Only, not available for Waterproof option)



Note: When Butt/rabbet Stile is required, the stile next to the hang strip will be astragal stile.



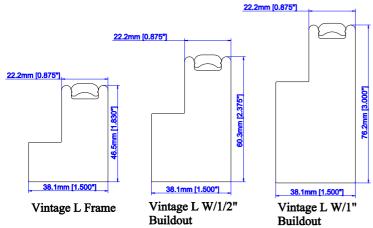
90 degree Bi Fold Track Shutters Framing Materials (For Waterproof option, only plain fascia is available)

Туре		Header Dimension	Top Fascia Dimension	Light Block Strip Dimension	Hang Strip Dimension
Header &	ОМ	3"		1 9/16"	
Тор	Olvi	3 1/2"	3 3/8"	2 1/16"	
Fascia&	Semi-IM	3"		5/8"x3/4"	
Light Block Strip	IM	3"	1 7/8"	5/8"x3/4"	1.08"x0.875"

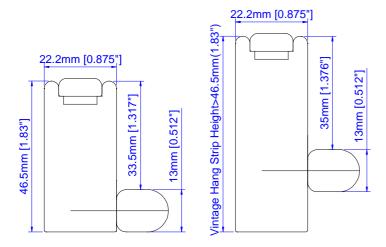
Note: It will be L shape light block strip for outside mount.

Frame Hinged Bifold (Not available for Waterproof option)

Available Stile: Rabbet Stile Only Available Frame type

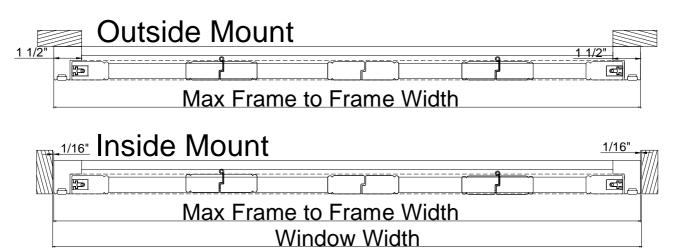


Vintage Hang Strip with 13mm light block: For single direction shutter with even panel qty, the frame on the unhinged side will be Vintage Hang Strip with 13mm [0.512"] light block, the height of the Vintage Hang Strip will match with that of the hinged side frame. The Vintage Hang Strip will be made in wood with surcharge.



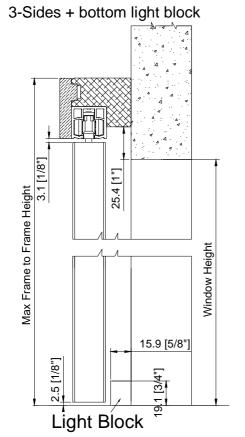
Top View

Hinged at Left or Right with wheel assembly at top;

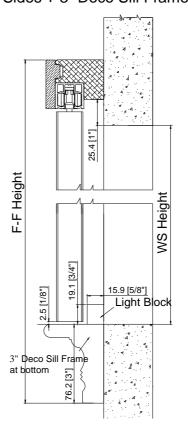


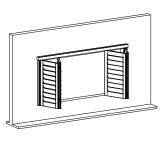
Side View

Outside Mount

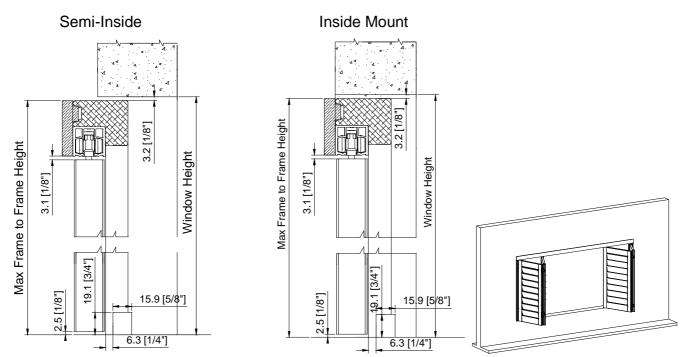


3-Sides + 3" Deco Sill Frame

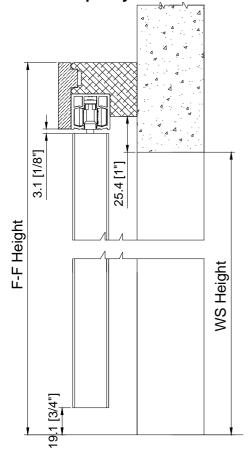




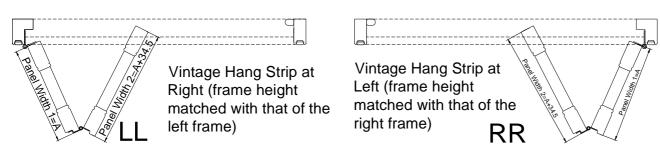
Note: For OM Frame Hinged Bifold shutter not to use as a door, if there is no existing sill at the bottom of the window opening, it is recommended to have the 3" Deco Sill Frame at the bottom.

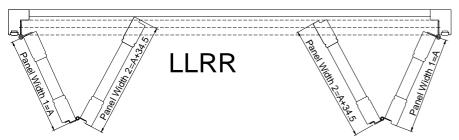


For frame hinged bifold track shutter used as door, the bottom gap will be 19mm by default. Please specify "Used As Door" on the order form.



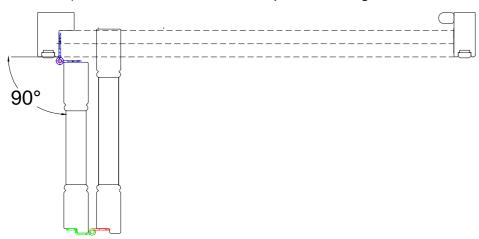
Panel Configuration (uneven panel width)





Notes:

1. Only available for 3-Sides + bottom light block or 3-Sides + 3" Deco Sill Frame (4-sides is not available); Panels can be folded and open at 90 degree;

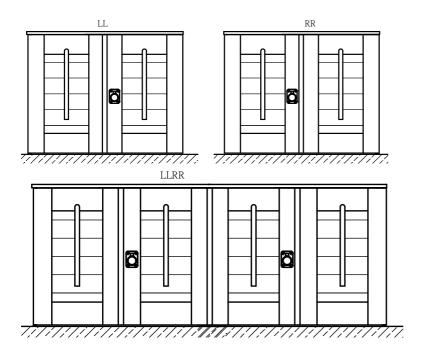


- 2. Frames available: Only Vintage L Frame
- 1) For top frame, the insert will be replaced by top fascia;
- 2) Top track will be pre-attached to the top frame;
- 3) Frame will be pre-drilled with screw holes same as regular shutters.

Ring Pull: The ring pull will be provided as option; and for frame hinged bi-fold, the ring pull will be supplied as default; Customer need specify ring pull location on the order form. Ring pull location is measured from the floor to center of the ring pull in height direction.

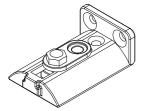
Ring pull color will match the hinge color.

Please refer to below drawing of ring pull position for all shutter type:

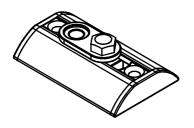


Bottom Pivot Bracket for 90 degree bifold:

For 90° Bifold Track Shutter, there will be 2 types of Bottom Pivot Brackets available.

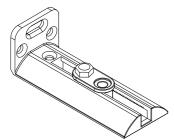


For Inside Mount, Bottom Pivot L Bracket will be supplied as default;



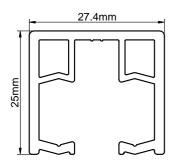
For Semi-Inside or Outside Mount, bottom pivot bracket will be supplied as default.

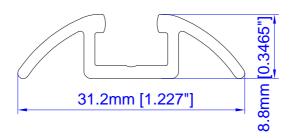
For 180° Bifold Track Shutter, 81mm Bottom Pivot L Bracket will be supplied as default.



Track Dimension:

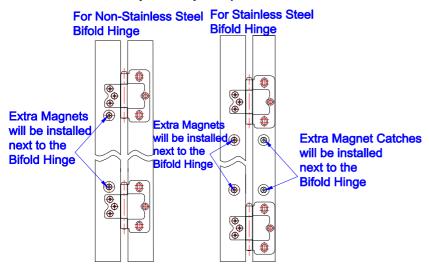
Top Track



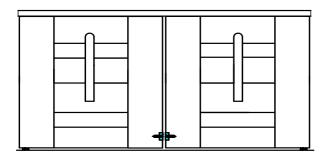


M Shape Bottom Track

Extra Magnets will be supplied for Bifold hinges: (only for the most top and bottom hinges, not available for Waterproof option)



Side Magnet: applied to the meeting stiles of LR panels, not available for Waterproof option



Extra magnet and Side Magnet (Not available for Waterproof option)

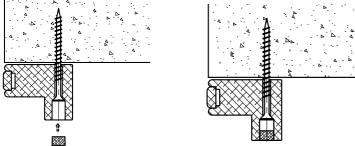


90° Bi Fold Track Shutters Hardware Box

Parts
Wrench
Hinge Pin
Triangle Bracket (based on the length of header)
2" screws for Triangle Bracket
3/4 " screws for Triangle Bracket
Bottom Pivot Bracket
38.1mm screws for bottom pivot bracket
63.5mm screws for Frame with predrilled screw
holes

Notes:

- 1. for all bifold track shutter Outside Mount, the header will be pre-drilled with screw holes in the insert and screws will be supplied by default;
- 2. for all bifold track shutter Inside/Semi-Inside Mount, the header will be pre-drilled with holes for screws and wood plug and screws and wood plug will be supplied by default



3. For both 90°& 180°bi-fold track, for waterproo f option, when 3" header is selected, the header will make as 2 3/8" (Vintage L frame for waterproof option) + 5/8" extension.

When 3 1/2" header is selected, the header will make as 2 3/8" (Vintage L frame for waterproof option) + 1 1/8" extension.

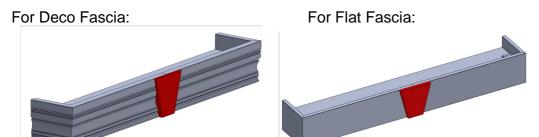
The extension for both header sizes will be pre-attached.

4. For waterproof option, only plain fascia is available.

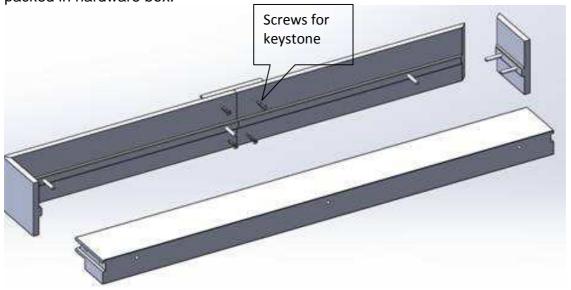
Keystone for Fascia of the Track Shutter

When fascia length exceeds the limitation and needs to split, keystone design fascia will be supplied without surcharge for track shutters.

For fascia length within the split limitation, keystone can also be supplied as an option with surcharge.



The keystone will be installed by screws. We will pre-drill the screw holes and the screws will be packed in hardware box.



Track Shutters—2020 Bypass

Guidelines and Specs:

		<u>Maximum</u>			
<u>Description</u>	<u>Minimum</u>	17⁄8"	2½"/ 3"	3½" / 4½"	
Single-Panel Width					
(Regular)	6"	24"	36"	36"	
for Non-Waterproof option					
Single-Panel Width					
(Regular)	6"	24"	31"	36"	
for Waterproof option					
Single-Panel Height	10"	120"	120"	120"	

Outside Mount

Max frame-to-frame width: window width + 3" Max frame-to-frame height: window height + 4½"

Semi-Inside Mount

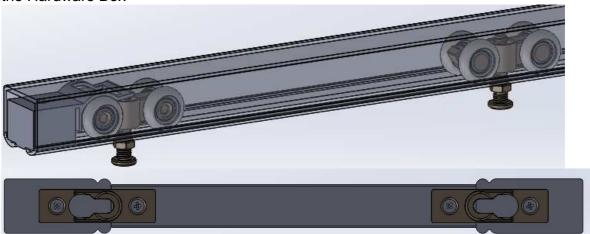
Max frame-to-frame width: window width - 1/8" Max frame-to-frame height: window height + 1 1/8"

Inside Mount

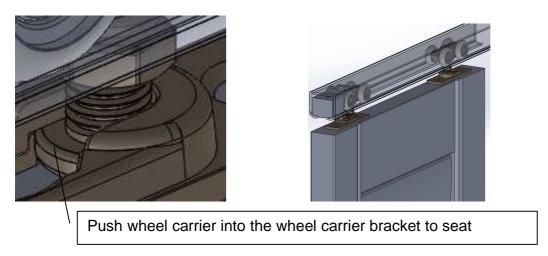
Max frame-to-frame width: window width - $^{1}/_{8}$ " Max frame-to-frame height: window height - $^{1}/_{8}$ "

Wheel Carriers are in the Track / Wheel Carrier Brackets are on the top of Panel:

Adjustments to panel alignment are made by turning the wheel carrier bolt with the wrench included in the Hardware Box

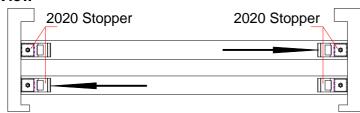


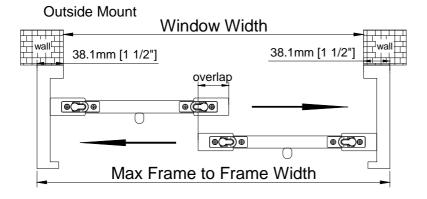
Track Shutters—2020 Bypass

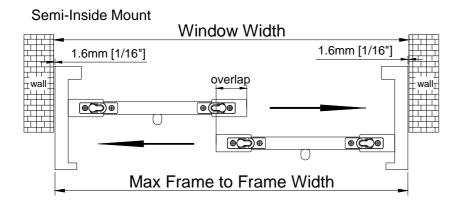


Note: 2020 Stopper will be supplied at both ends of top track by default.

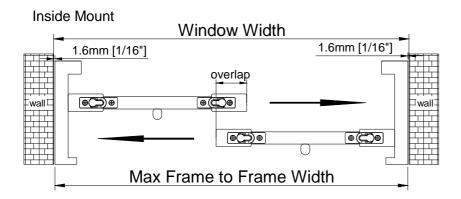
Top View







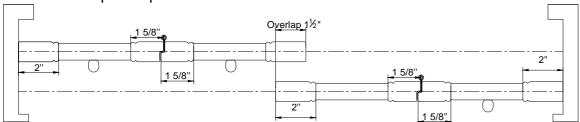
Track Shutters—2020 Bypass



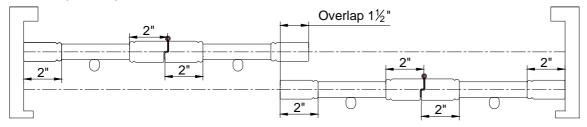
Top View

Combi - joined Panels (optional):

For Non-Waterproof option:

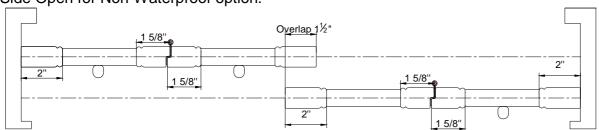


For Waterproof option:



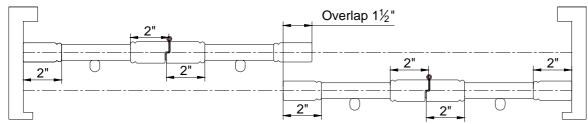
For shutters with 4 or more panels, please select "side open" or "center open"

Side Open for Non-Waterproof option:

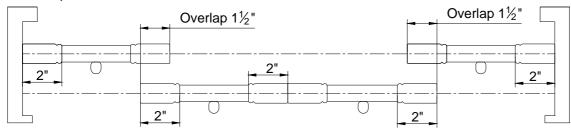


Track Shutters—2020 Bypass

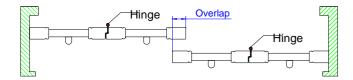
Side Open for Waterproof option:



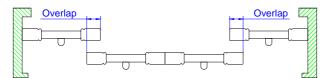
Center Open



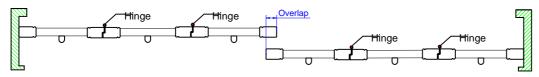
panels side open w/Rabbet stile



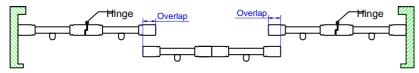
panels center open w/Rabbet stile



6 panels side open w/Rabbet stile



6 panels center open w/Rabbet stile



Stile: Only 2", 2 1/4" rabbet stiles are available, 1 5/8" rabbet stile only used for combi-joined panels for non-waterproof option. Center stile is not available.

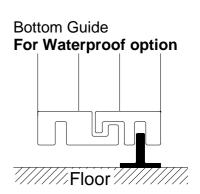
Track Shutters—2020 Bypass

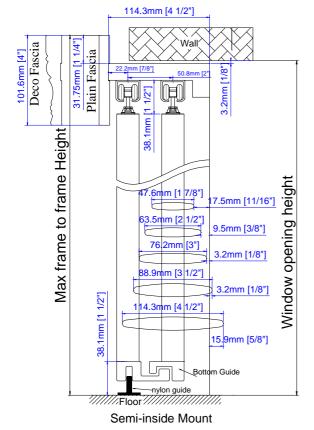
Mounting Options (Closed Bypass)

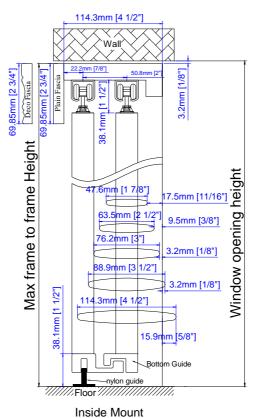
139.7mm [5 1/2"] Deco Fascia Triangle Bracket Wall, 11/16"] 31.75mm [1 1/4"] 42.9mm [1 1/4"] 114.3mm [4 1/2"] 9.5mm [3/8"] Reliable Bracket Wall, 11/16"] 142.9mm [1 1/8"] 142.9mm [1 1/8"] 88.9mm [3 1/2"] 22.2mm [7/8"] 9.5mm [3/8"] Ploor Guide Floor Outside Mount

Side View



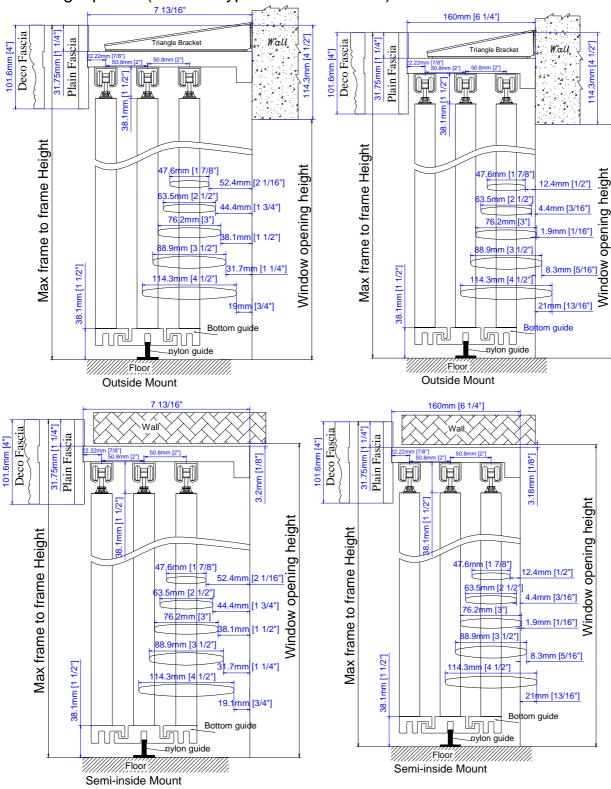




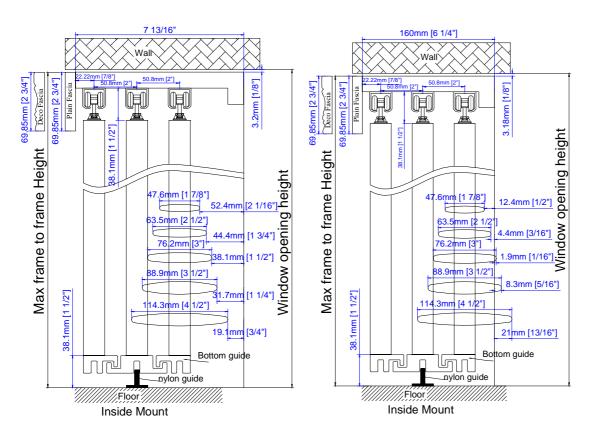


Track Shutters—2020 Bypass

Mounting Options (Closed Bypass with 3 Tracks):

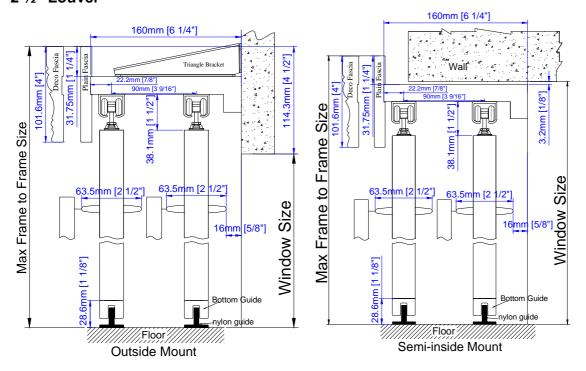


Track Shutters—2020 Bypass

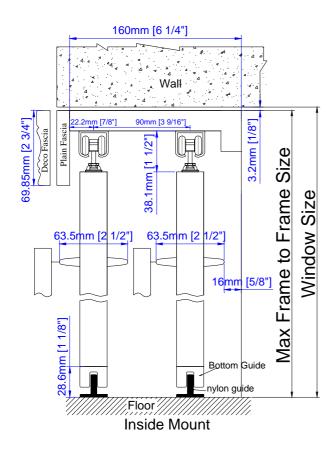


Mounting Options (Opened Bypass) 2 1/2" Louver

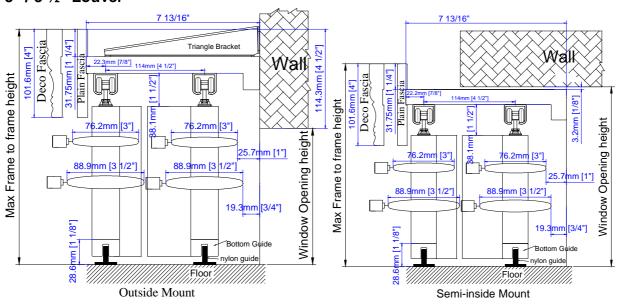
Only available in 2 $\frac{1}{2}$ ", 3" and 3 $\frac{1}{2}$ " louver sizes



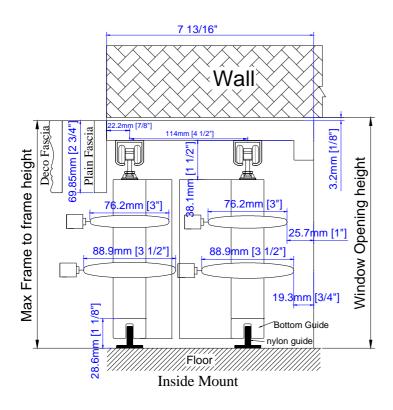
Track Shutters—2020 Bypass



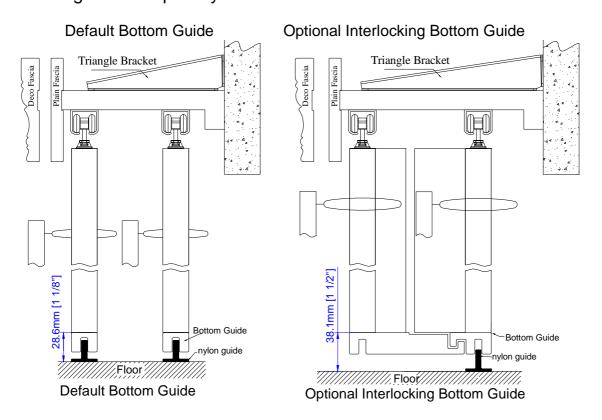
3" / 3 1/2" Louver



Track Shutters—2020 Bypass



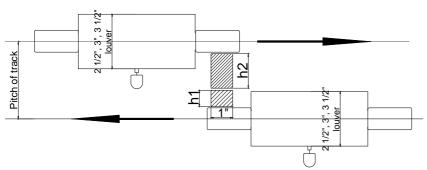
Bottom guide for Open ByPass:



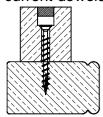
Track Shutters—2020 Bypass

Opened Bypass

Top View



Note: The light block for open bypass will be changed to use screws with wood plugs instead of current dowels.



Separation of track

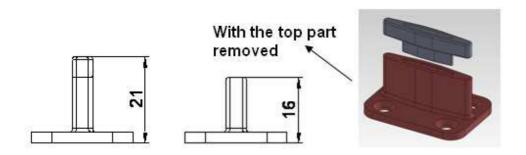
Louver	U shape bottor	m guide	Interlocking bottom guide			
Louver	Regular Tilt Rod	Invisible tilt	Regular Tilt Rod	Invisible tilt		
2.5"	3 9/16"	2 3/4"	3 9/16"	3 9/16"		
3" / 3.5"	4 1/2"	3 5/8"	4 1/2"	4 1/2"		

Light block thickness for panel

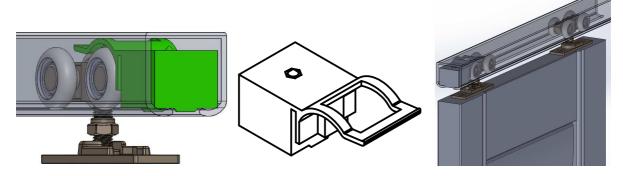
Louver		U shape bottom guide		Interlocking bottom guide			
		Regular Tilt Rod Invisible		Regular Tilt Rod	Invisible tilt		
2.5"	h1	3/4"	3/4"	3/4"	1 9/16"		
2.5" h2		1 9/16"	3/4"	1 9/16"	3/4"		
3" / 3.5"	h1	1 3/16"	1 3/16"	1 3/16"	1 15/16"		
3 / 3.5	h2	1 15/16"	1 3/16"	1 15/16"	1 3/16"		

Nylon Guide: The nylon guide is composed by 2 parts and will supplied as a whole set by default (bottom part 16mm and top part 5mm), please remove the top part if necessary.

Track Shutters—2020 Bypass

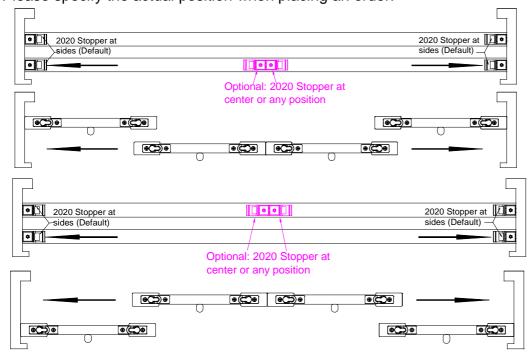


The 2020 Stopper



Note: 2020 Stopper will be supplied at both ends of top track by default.

The 2020 stopper can also be used in the center or any position of the top track as an option. Please specify the actual position when placing an order.



Track Shutters—2020 Bypass

Track Shutters Framing Materials (For waterproof option, only plain fascia is available)

Framing	Size						
L Shape Header	Header (Closed Bypass)	Header (Opened Bypass)	Supportir				
(2 in 1)	34" x 5½" [*] (Default for Outside Mount; Optional for Semi-Inside and Inside Mount)	³ ⁄ ₄ " x 6 ¹ ⁄ ₄ " [*] (2 ¹ ⁄ ₂ " Louver)	³ ⁄ ₄ " χ ³ ⁄ ₄ "		1 pc		
Header with Supporting Strip	3/4" x 41/2"* (Default for Semi-Inside and Inside Mount; Optional for Outside Mount)	³ / ₄ " x 7 ¹³ / ₁₆ " [*] (3", 3½" Louver)					
	Custom [*] ≤ 8"	Custom * < 8"					
U Shape Side Frame	Side Frame (Closed Bypass)	Side Frame (Opened Bypass)	Supportin g Strip	Side Fascia			
(3 in 1)	3/4" x 5 7/8"* (Default for Outside Mount; Optional for Semi-Inside and Inside Mount)	34" x 6 58"* (2½" Louver)			2 pcs		
Side Frame with Supporting Strip	3/4" x 4 7/8"* (Default for Semi-Inside and Inside Mount; Optional for Outside Mount)	³ ⁄ ₄ " x 81⁄ ₄ " [*] (3", 31⁄ ₂ " Louver)	³ ⁄ ₄ " x ³ ⁄ ₄ "	3/8" x 11/4			
& Side Fascia	Custom [*] ≤ 8"	Custom * < 8"					
Top Fascia	4" (Semi-inside and Outside Mount)						
(Plain/Deco)	½" x 2 3/4" (Inside Mount)						
Top Fascia	4" (Semi-inside and Outside Mount)						
Return	N/A (Inside Mount)				2 pcs		

Note:

- When the header size is $4\frac{1}{2}$ ", $5\frac{1}{2}$ ", $6\frac{1}{4}$ " or $7^{13}/_{16}$ ", the L Shape header and the U Shape Side Frame will be sent integrally. That is:
- 1. The header and the supporting strip will be sent integrally as L Shape Header;
- The side frame, supporting strip and the side fascia will be sent integrally as U Shape Side Frame.
 For any custom header sizes other than 4½", 5½", 6½" or 7¹³/₁6", the L Shape Header and the U Shape Side Frame will be sent separately. That is:
- 1. The header and the supporting strip will be sent separately for L Shape Header;

Track Shutters—2020 Bypass

- 2. The side frame, supporting strip and the side fascia will be sent separately for U Shape Side Frame.
- Custom Boxout Width is available for both closed and opened bypass shutters.

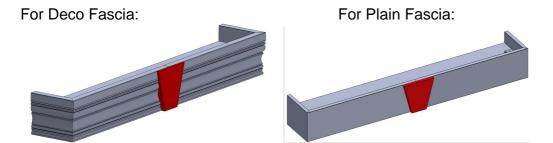
Hardware Box

Hardware Box				
Part				
Wrench				
Nylon Guide				
3/4 " screws for Nylon Guide				
Triangle Bracket (based on the length of header)				
2" screws for Triangle bracket				
3/4" screws for Triangle bracket				

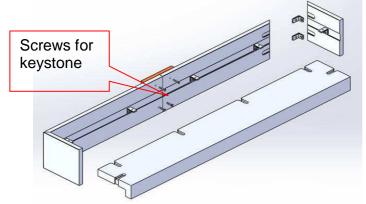
Keystone for Fascia of the Track Shutter

When fascia length exceeds the limitation and needs to split, keystone design fascia will be supplied without surcharge for track shutters.

For fascia length within the split limitation, keystone can also be supplied as an option with surcharge.



The keystone will be installed by screws. We will pre-drill the screw holes and the screws will be packed in hardware box.

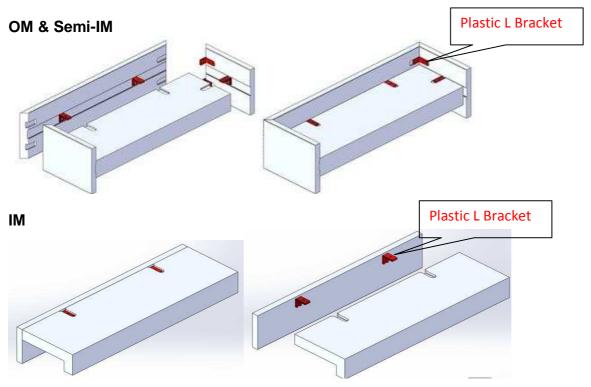


Track Shutters—2020 Bypass

Plastic L Bracket to Connect the Header, Fascia & Fascia Returns



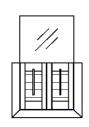
L Bracket will be used to connect the header, fascia and fascia returns for Bypass shutter. This applies for Inside Mount, Semi-Inside Mount & Outside Mount.



Special Options

Café Shutters*

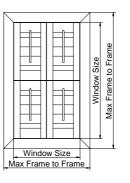
- The top of the panel requires a special finish. Please indicate "café shutter" when placing orders.
- The shutter does not come with recessed magnet on top.
- When the height of the framing material (including t-posts) exceeds the panel height, by more than 5", a surcharge will apply.



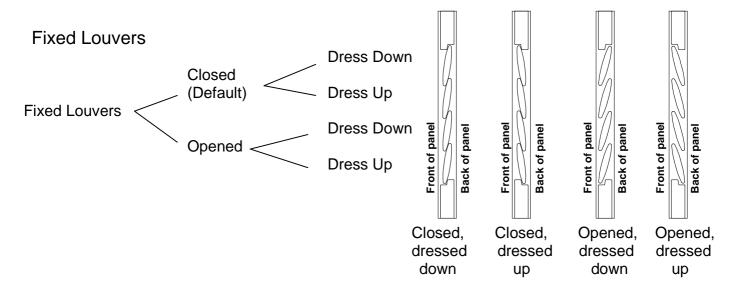


Double-Hung Shutters*

- For total number of panels, please include panels in both rows.
- Bifold panel is not available under this option.
- For panel configuration, please provide panel fold for one row.
- The default location for the division point is the center unless specified otherwise.
- Horizontal T Post^{*} can be added for increased structural integrity.
- Warranty needs to be waived for the horizontal T post length exceeds 48".
- For Double Hung shutter, whenever an upper or lower panel is larger than 78", we will add one more extra hinge for it, we will also attempt to create larger top/bottom rails for additional strength by reducing the number of louvers by one as long as the rail sizes remain within spec.







French Door Cut-out Collection*

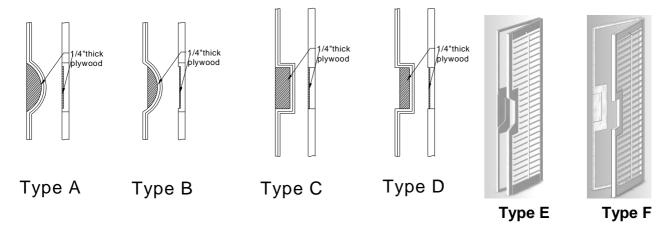
Flush and offset cutout options are available in both curved and square French door cutout. Offset cutout is good option for French Door with molding around the glass.

All French door cutouts are only available in L frame except Type E and F. The batten is placed behind the Type E/F panel to block light.

Louver size	Batten Width	Batten thickness
1 7/8" & 2 1/2"	3/4"	1"
3" & 3 1/2"	3/4"	1 3/8"
4 1/2"	3/4"	1 7/8"

For measurement details please refer to Form section.

French Door cutouts with Arch/Quarter Arch at the top are also available except Type E and F



Type E & Type F are Not available for Waterproof Woodlore plus.

Custom Colors ^{*}

Available in Woodlore® plus, Woodlore® plus Waterproof shutters.

Option (Color Code)	Sample Size	Confirmation Process
Custom Solid (C01)	A least 4"x4" on a clean, flat surface, such as wood or cardboard (please do not send anything critical as the sample will not be returned)	All orders require customer's confirmation via digital photo OR actual swatch in the mail before production. An additional shipping and Custom handling fee applies.

^{*}Some surcharges apply

Note:

- 1) All custom colors will be finished with the standard gloss used on all Norman products.
- 2) Please be aware that we will only be able to match the tone and not the texture or finish of the sample you submit.
- 3) Only one color revision will be allowed during the color confirmation process.
- 4) Customer may shorten the production lead-time by opting to waive the color confirmation process or by approving a digital photo. Norman will not be responsible for any color variation on waived confirmations or approved digital photos.

Disclaimer:

Sherwin Williams ColorSnap (MWCS), Sherwin Williams Designer Expressions (MWDE), Benjamin Moore Classic (MBMC) (M2460009TL) & Benjamin Moore Preview (MBMP) (M2440564TL) Benjamin Moore, Off White Collection M2451888TL

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Specialties

Specialty Shutters for Waterproof option:

Specialty shutters are made from waterproof ABS co-polymer, finished to match the beauty of all Norman shutters. Templates are required if it is an imperfect specialty. Delivery time is 8 weeks from the order confirmation date for all specialty shutters. Please refer to Specialties and Template Requirement sections for details.

Continuous Arch is not available for Waterproof option.

Regarding frame with an insert or solid frame issue:

- 1). For Woodlore plus waterproof option, no matter which type of specialty shutters, 2" Camber deco frame will always be made as solid frame;
- 2). For Half Round Sunburst, Quarter Round Sunburst, Eyebrow Sunburst & Elongated Eyebrow Sunburst:

All Vintage L frames &1 1/2" Deep Bullnose Z frame & Deep Plain L frame: all top frames (curve shape frame) will be made as a solid frame but the bottom & both sided frames (straight frames) will be made as regular frames with inserts.

- 3). For Triangle, Hexagon, Octagon, Peak & Angle top: all Vintage L frames & 1 1/2" Deep Bullnose Z frame & Deep Plain L frame will be made as regular frames with inserts.
- 4). For Circle, Oval: all Vintage L frames & 1 1/2" Deep Bullnose Z frame & Deep Plain L frame will be made as solid frames (not with an insert).
- 5). For Sunburst on top with Divider strip: the top Vintage L frame & 1 1/2" Deep Bullnose Z frame & Deep Plain L frame (curve shape frame) will be made as a solid frame but the bottom & both sided frames (straight frames) will be made as regular frames with inserts.
- 6). For Louver Arch with Eyebrow curve shape: All Vintage L frames & 1 1/2" Deep Bullnose Z frame & Deep Plain L frame: the top frame (curve shape frame) will be made as a solid frame but the bottom & both sided frames (straight frames) will be made as regular frames with inserts;
- 7). For other Specialty Shutters when curve shape is similar as perfect arch (such as Louver Arch except Louver Arch with Eyebrow curve shape in point 6), Horizontal louvers center arch with quarter round side panels(-Standard louvered arch), Sunburst louvers center arch with quarter round side panels, Arch Top Picture Window with horizontal louvers, Arch Top Picture Window with Sunburst, Standard unit with horizontal arch center etc.):

All Vintage L frames &1 1/2" Deep Bullnose Z frame & Deep Plain L frame: all top frames (curve shape frame) will be made as a solid frame but the bottom & both sided frames (straight frames) will be made as regular frames with inserts.

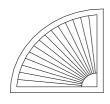
Hardwood Specialty Shape

Specialty Shutters for non-waterproof option:

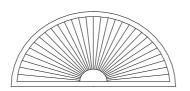
Specialty shutters are made of premium solid wood, finished to match the beauty of all Norman shutters. Templates are required if it is an imperfect specialty. Delivery time is 8 weeks from the order confirmation date for all specialty shutters. Please refer to Specialties and Template Requirement sections for details.

Regarding frame with an insert or solid frame issue:

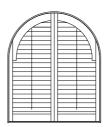
- 1). For Half Round Sunburst, Quarter Round Sunburst, Eyebrow Sunburst & Elongated Eyebrow Sunburst:
- All deco frames will be made as solid frames;
- All Vintage L frames & Vintage hang strip: all top frames (curve shape frame) will be made as a solid frame but the bottom & both sided frames (straight frames) will be made as regular frames with inserts
- 2). For Triangle, Hexagon, Octagon, Peak & Angle top: all frames will be made as regular frames with inserts.
- 3). For Circle, Oval: all frames will be made as solid frames (not with an insert).
- 4). For Sunburst on top with Divider strip: the top frame (curve shape frame) will be made as a solid frame but the bottom & both side frames (straight frames) will be made as regular frames with inserts.
- 5). For Louver Arch with Eyebrow curve shape:
- All deco frames excluding 2.5" Mission deco frame: all frames will be made as solid frames (not with an insert).
- All Vintage L frames & Vintage hang strip & 2.5" Mission deco frame: the top frame (curve shape frame) will be made as a solid frame but the bottom & both sided frames (straight frames) will be made as regular frames with inserts;
- 6). For other Specialty Shutters when curve shape is similar as perfect arch (such as Louver Arch except Louver Arch with Eyebrow curve shape in point 5), Horizontal louvers center arch with quarter round side panels(-Standard louvered arch & Continuous arch), Sunburst louvers center arch with quarter round side panels, Arch Top Picture Window with horizontal louvers, Arch Top Picture Window with Sunburst, Standard unit with horizontal arch center etc.):
- All deco frames will be made as solid frames;
- All Vintage L frames & Vintage hang strip: all top frames (curve shape frame) will be made as a solid frame but the bottom & both sided frames (straight frames) will be made as regular frames with inserts.



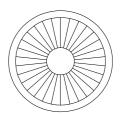
Quarter Round Sunburst



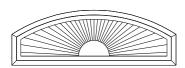
Half Round Sunburst



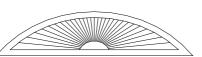
Louvered Arch w/ Center Tilt Rod



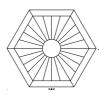
Circle Sunburst



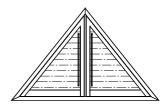
Elongated Eyebrow Sunburst



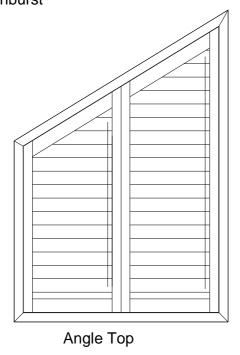
Eyebrow Sunburst

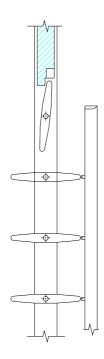


Hexagon Sunburst

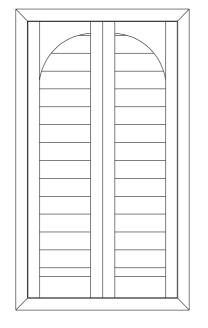


Triangle

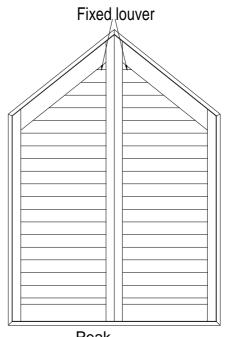




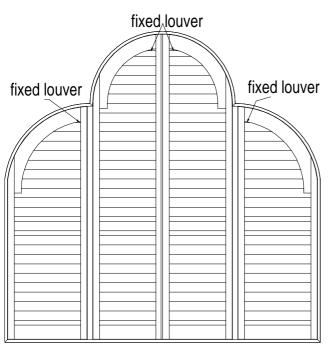
*Top louver of angle top might be fixed as shown above



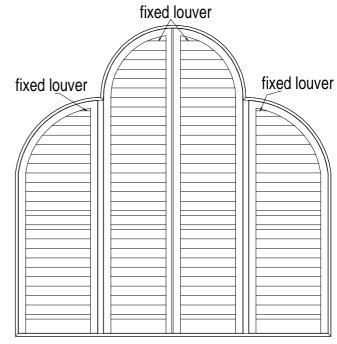
Louver Arch in a Rectangle



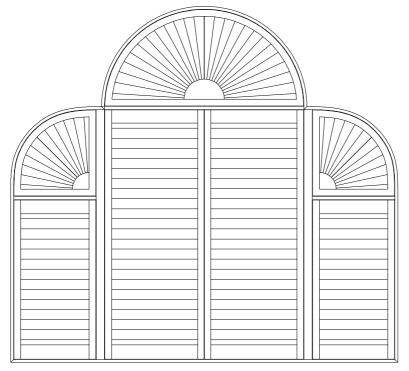
Peak



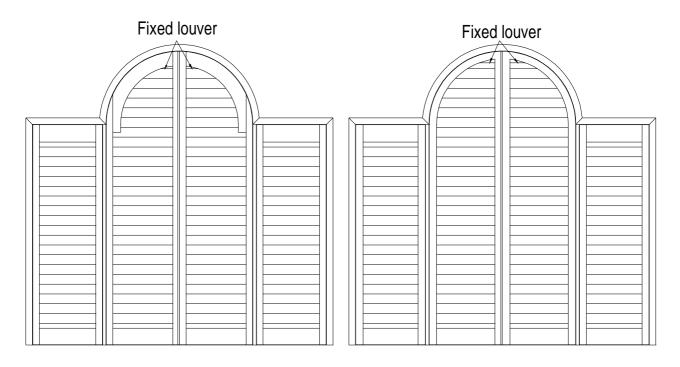
Horizontal louvers center arch with quarter round side panels -Standard louvered arch



Horizontal louvers center arch with quarter round side panels -Continuous arch Not available for Waterproof option.

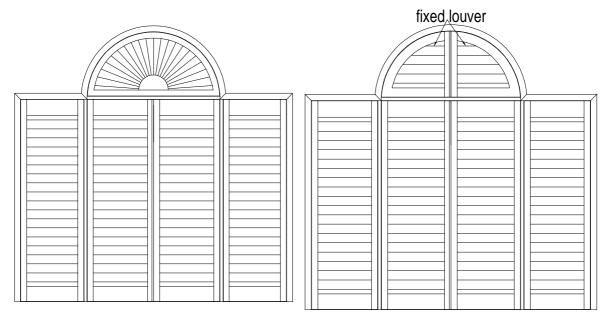


Sunburst louvers center arch with quarter round side panels



Arch Top Picture Window with horizontal louvers -Standard louvered arch

Arch Top Picture Window with horizontal louvers
-Continuous arch
Not available for Waterproof option.



Arch Top Picture Window with Sunburst

Standard unit with horizontal arch center

Pricing

1) By May Frama to Frama	Magauramanti						
1) By Max Frame-to-Frame Regular Shutter	measurement.						
Inside and Outside Mount		Width	х	Height	/ 144	х	\$/sq ft
Track Shutter**							
Inside		Width	х	Height	/ 144	Х	\$/sq ft
Semi-Inside and Outside M	ount	Width	Х	(Height-1½")	/ 144	Х	\$/sq ft
2) By Net Panel Measuren	nent:	Width	Х	Height	/ 144	Х	\$/sq ft
3) By Window Size:							
	4-sided	(Width+4")	х	(Height+4")	/ 144	Х	\$/sq ft
2" Camber Deco Frame	3-sided with Sill Plate	(Width+4")	х	(Height+4")	/ 144	х	\$/sq ft
2" Classic Deco Frame	3-sided	(Width+4")	Х	(Height+2")	/ 144	х	\$/sq ft
	2 sided with Sill Plate	(Width+4")	х	(Height+2")	/ 144	х	\$/sq ft
	2-sided	(Width+4")	х	(Height)	/ 144	х	\$/sq ft
	4-sided	(Width+6")	х	(Height+6")	/ 144	х	\$/sq ft
	3-sided with Sill Plate	(Width+6")	х	(Height+6")	/ 144	х	\$/sq ft
3" Ridge Deco Frame	3-sided	(Width+6")	х	(Height+3")	/ 144	х	\$/sq ft
	2-sided with Sill Plate	(Width+6")	х	(Height+3")	/ 144	х	\$/sq ft
	2-sided	(Width+6")	х	(Height)	/ 144	х	\$/sq ft
	4-sided	(Width+5")	Х	(Height+5")	/ 144	х	\$/sq ft
2.5" Mission deco frame	3-sided	(Width+5")	Х	(Height+2.5")	/ 144	х	\$/sq ft
iraille	2-sided	(Width+5")	Х	(Height)	/ 144	х	\$/sq ft
	4-sided	(Width+4 1/2")	х	(Height+4½")	/ 144	х	\$/sq ft
	3-sided with Sill Plate	(Width+4 1/2")	Х	(Height+4½")	/ 144	х	\$/sq ft
3" Crown Z Frame	3-sided	(Width+4 ½")	Х	(Height+21/4")	/ 144	х	\$/sq ft
	2-sided with Sill Plate	(Width+4 1/2")	Х	(Height+21/4")	/ 144	х	\$/sq ft
	2-sided	(Width+4 1/2")	х	(Height)	/ 144	Х	\$/sq ft

Pricing

	4-sided	(Width+2 ½")	х	(Height+21/2")	/ 144	х	\$/sq ft
2" Bel Air Z Frame 2" Bullnose Z Frame	3-sided with Sill Plate	(Width+2 ½")	х	(Height+2½")	/ 144	х	\$/sq ft
	3-sided	(Width+2 ½")	х	(Height+11/4")	/ 144	х	\$/sq ft
	2-sided with Sill Plate	(Width+2 1/2")	х	(Height+11/4")	/ 144	х	\$/sq ft
	2-sided	(Width+2 ½")	х	(Height)	/ 144	х	\$/sq ft
	4-sided	(Width+2")	х	(Height+2")	/ 144	х	\$/sq ft
1 1/2" Bullnose Z Frame	3-sided with Sill Plate (N/A w/ Tilt out Z)	(Width+2")	х	(Height+2")	/ 144	х	\$/sq ft
1 1/4 " Beaded Z Frame/	3-sided	(Width+2")	х	(Height+1")	/ 144	Х	\$/sq ft
Bullnose Tilt Out Z Frame	2-sided with Sill Plate (N/A w/ Tilt out Z)	(Width+2")	х	(Height+1")	/ 144	х	\$/sq ft
	2-sided	(Width+2")	х	(Height)	/ 144	Х	\$/sq ft
	Inside	Width	х	Height	/ 144	Х	\$/sq ft
Vintage Hang Strip	Outside 4-sided	(Width+3")	х	(Height+3")	/ 144	х	\$/sq ft
Traditional Hang Strip	Outside 3-sided	(Width+3")	х	(Height+11/2")	/ 144	х	\$/sq ft
	Outside 2-sided	(Width+3")	х	(Height)	/ 144	х	\$/sq ft
Vintage Frame/	Outside 4-sided	(Width+3")	х	(Height+3")	/ 144	Х	\$/sq ft
Vintage L Frame/	Outside 3-sided	(Width+3")	х	(Height+1½")	/ 144	х	\$/sq ft
Beaded L Frame	Outside 2-sided	(Width+3")	х	(Height)	/ 144	х	\$/sq ft
Track Shutter**							
Inside and Semi-Inside Mount		Width	х	Height	/144	Х	\$/sq ft
Outside Mount		(Width+3")	х	(Height+3")	/144	X	\$/sq ft