# SHADE OPTIONS

Creating a Perfectly Controlled Environment









# ABOUTIUS III

As an industry leader for more than 20 years, Solar Innovations® has a long history that is rooted in the heart of manufacturing with a deep passion for the American dream. As a single source provider of custom glass structures, skylights, windows, doors, and more, Solar strives to endlessly innovate and design custom products throughout the world. Our products continue to develop and grow as a direct result of our dedication to the industry and the creativity of our customers.

By investing in our team and customers, Solar is proud to turn dreams into reality. All of our American made products are designed and manufactured at our campus in Pine Grove, PA, allowing for more flexibility to provide superior products and services. In addition, most of our engineering, product testing, and product designing take place within our facility. By producing as many components as possible inhouse, Solar has greater control over quality, lead times, and cost, which ultimately achieve better results for our customers.

Although Solar Innovations® comes from small and humble beginnings, we now reside in a 400,000-square-foot corporate and manufacturing space. With a three-building campus located on over 36 acres of land, Solar continues to develop and grow by creating innovative designs and engineering new product lines. The Solar team strives to forge its path into the future by promoting a strong spirit of unity, with the desire to be better today than yesterday.

#### **INNOVATIVE**

Solar Innovations® – it's in the name. By constantly introducing new ideas with creative ways of thinking, our decisions take standard products to the next level. No project is too big or too small for Solar to handle.

#### **DURABLE**

The strength and durability of our products are a promise.
The majority of our applications are impact tested in-house, ensuring that Solar's projects can withstand the test of time in any environment.

#### **HIGH-PERFORMING**

At Solar, we are about superior results. Our company currently offers the largest, impact rated folding glass walls on the market and constantly strives to create the highest quality product possible.

#### **EASY TO OPERATE**

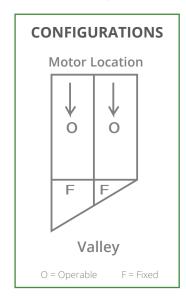
All of Solar's applications are user-friendly and straightforward. No matter the shape, size, or type of project you may have, our products remain practical and manageable for the ultimate customer experience.



# **GRAVITY FED**

Gravity fed shades, also known as Roman fold shades, are typically used on sloped roofs, but can also be utilized in vertical wall applications. These shades are individually sized to fit between the rafters of an interior glass roof and are operated with a motor or manual pull cord in a Roman fold style. Numerous materials and colors are available. Wide span-covering two to four bays- may be available depending on fabric, layout, and design. Gravity fed shades are operable in rectangular sections and fixed in angled corners. They are also mounted at the ridge, and roll down to the eave. Gravity fed shades can be used in moist environments. Typically require a minimum 2/12 roof slope.





## Fabric Options\*



<sup>\*</sup>More fabric options listed on page 13

# WIDE SPAN

Wide span shades extend from eave to eave or follow the slope of a glass structure. The blinds are designed in a Roman fold style with various fabric, color, and texture options. When extended, the shades trap heat above them, allowing the living space to remain cooler. On cool days, the shades can be retracted to trap heat below the eave line of the structure.

These Roman fold style blinds are fully operable. For most materials, the suggested maximum panel size is 9 feet wide and 20 feet long. Wide span shades are available in both manual and motorized operation options.

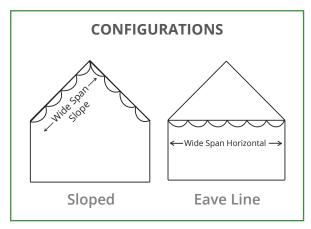
## **SLOPED OR EAVE TO EAVE**

Max Width - 114" Max Length - 180"

#### WALL

Max Width - 78" Max Length - 180"





## Fabric Options\*



<sup>\*</sup>More fabric options listed on page 13

# MANUAL ROLLER

Manual roller shades are designed to be pulled by hand against the eave line. When pulled taut, the shade will click and hold in place. Effective for greenhouses and other applications that are used less frequently, the tension shade system is less expensive and easy to install.

## Fabric Options\*

Singular Blackout



<sup>\*</sup>More fabric options listed on page 13



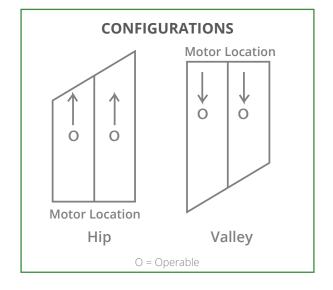
# PLEATED

Pleated shades can be used in the roof and vertical walls of a glass structure. The pleats provide a visual pattern and soften daylight for interior spaces. These shades can be operated with manual pulls or motorized options, and each shade is operated independently.

These pleated blinds are fully operable, including angled corners. They are generally mounted at the eave and pull upwards toward the ridge, except for angled corners where the shades will operate inversely.

Fabric selections are dependent upon interior environment. Pleated shades are an excellent option for structures with long slopes, and are suitable for humid environments.

Max Width - 69.685" Max Length - 165.354"



## **Fabric Options**





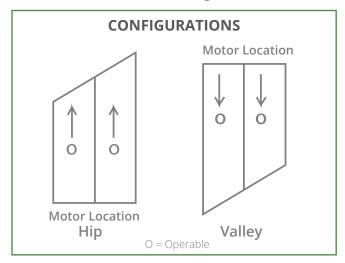
## PINOLEUM

Pinoleum blinds are traditionally used with conservatories, sunrooms, and skylights. The blinds are comprised of individual wooden reeds that are woven together to diffuse light. The shade system lets light in while still reducing heat and glare.

Pinoleum blinds are available as manual or motorized units, which operate in a Roman fold style. The fully operable units can accommodate most angled corners. They are generally mounted at the eave and move upwards toward the ridge, but this may vary, depending upon roof configuration.

Pinoleum blinds should not be used in humid environments, like pool enclosures or greenhouses, due to the potential of water damage.

Max Width - 77.953" Max Length - 157.48"





## **Fabric Options**



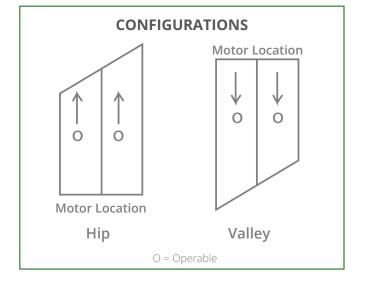
# ROLLER CASSETTE

Solar R blinds are typically used to increase energy efficiency and control temperature inside a space. The smooth shades have an aluminum backing which reflects solar rays away from the structure to limit solar heat gain. When operated, the shades move on a roller into a cassette via the pulley system. Motorized options are also available. Solar R blinds are suitable for sloped and vertical applications.

In most cases, roller style blinds are fully operable, including angled corners. They are generally mounted at the eave and pull upwards toward the ridge, except for angled corners near the eave line where the shades will operate inversely. Solar R blinds are not recommended for use in humid environments, like pool enclosures or greenhouses. Custom cassette colors are available.

Max Width - 70.866"

Max Length - 141.732"



## **Fabric Options**



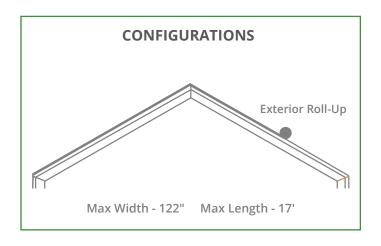


# EXTERIOR ROLL-UP

Mainly utilized in greenhouses, exterior roll-up shades are manufactured from vinyl-coated fiberglass and are available in silver gray, bronze, or charcoal. Roll-up shades are not 100 percent opaque, which allows for some natural light to be maintained. This shade system can be easily rolled up to allow additional light to enter the structure when necessary.

These shades help reduce solar heat gain in glass structures by blocking out 70 percent of the sun. This typically reduces the strain put on the cooling system and can lead to a reduction in utility costs. The shades will also help maintain heat during the winter, providing a year-round reduction of energy consumption.

Exterior roll-up shades are custom manufactured to fit any structure's shape, size, or configuration.









# FIXED EXTERIOR

Fixed exterior shades are constructed from a 1 inch by 1 inch extruded screen frame with a removable H channel. These shades feature exterior grade fabric, but still must be removed in snow and ice proan regions and in the winter to avoid damages.





Special care must be taken when maintaining exterior fixed shades. Glass can not be cleaned without first removing the shade system.

Exterior shades limit the heat that enters a glazed structure, as opposed to gathering it between the shades and glass like many internal shading options. Long spans can be accomplished when using fixed exterior shades. However, Solar Innovations® recommends a max panel size of 4 feet by 10 feet.

# SUNAIR BLINDS

A solar shade is the ideal solution for keeping sunlight at bay (and to also enjoy its advantages). You can eliminate glare and control the amount of light that enters the room while still maintaining a view of the outside. Simply push a button and the optional motor lowers or retracts the shade.

A solar shade from Solar Innovations® can significantly reduce indoor temperature while also lowering cooling costs by blocking the sun before it enters your living space. Our fabrics effectively block up to 90 percent of solar heat rays when installed on the exterior of the window.

Depending on the type of fabric used, you may realize a potential reduction in air-conditioning costs by as much 25 to 40 percent. Our shades also protect your furniture, curtains, and floor coverings from UV damage.



Solar shade systems are available in 9 powder-coat frame colors, the highest option amount in the industry. Over 200 custom "RAL" frame colors are available for an additional charge.

The locking system for exterior solar shades is installed at each end of the shade bar and below the screen, these magnetic locks initially guide and then hold the screen tight in the down position. These shades keep the fabric flat and smooth, preventing the screen fabric from riding up in the wind. The screen grasp is released by gear or motor tension when retracting the shades. This system should be retracted and not operated when ice or snow is present

## **Fabric Options**





## GRAVITY FED, WIDE SPAN, & MANUAL ROLLER

## **FABRIC OPTIONS**





## How to Simplify the Shade Purchasing Process

- First, determine what the room will be used for and when it will be used. Will it be used only in the spring and summer as a sun porch, or will it be used year-round for entertaining?
- 6 Visit Solar's facility to operate shade displays or visit our website to view videos of their operation.
- 2 Take rough measurements and make sketches; determine the shape and size of the space.
- Solar Innovations® will then review the quotation and design that was provided by our team.
- Note the orientation of the space to the sun and how much sun heats the space and when.
- 8 Your Solar sales representative will help you place orders for your shade system.
- What temperature and humidity level do you need to maintain in the space?
- 9 Enjoy the comfort and beauty of your new shade system.
- Consult with a Solar Innovations® sales designer to determine the range of investment you are willing to devote to your shade system.
- Contact Solar Innovations® for any future shade service work you may require.

# SCREEN OPTONS

#### **FOLDING SCREENS**

Folding screens are hinged and fold accordion-style, mimicking the operation of folding glass walls. Operable swing door panels can be integrated into the units. Folding screens can be used to create an outdoor screen room to enjoy nature without bothersome insects.

### **SLIDING SCREENS**

Sliding screens are generally used on large openings, most commonly on the exterior of sliding glass doors. The panels of this system can be pocketed into a wall cavity and be either center split or stack to the left or right when fully open.

#### **SCREEN SWING DOORS**

Screen swing doors are available for both single and French doors. The screen swing door is constructed from an aluminum frame that mimics the sightlines of our glazed swing doors. Handle selections can also be matched to the glazed door.

#### **FIXED SCREENS**

Fixed screens are used on casement, awning, hopper, tilt turn, and sliding glass windows. Fixed screens can be removed for cleaning.

## **B SERIES RETRACTABLE SCREENS**

B Series Screens are suited for large openings when a pleated screen option is preferred. These retractable screens can meet at a 90° corner to enclose a space with only one visible vertical division. This screen can be paired with folding glass walls, sliding glass doors, lift slide doors, French doors, screen rooms, and more.

## S SERIES RETRACTABLE SCREENS

S Series Screens are vertically retractable screens that provide the ability to enjoy the outdoors while being protected from pests. S Series Screens feature a specialty zipper system which guides the fabric within the track and prevents insects from entering. The system can also prevent sunlight from entering the room if black out fabric is selected.







# COMMERCIAL & RESIDENTIAL DOORS & WINDOWS | GLASS STRUCTURES | SKYLIGHTS

Folding Glass Walls Slide & Stack Glass Walls Clear Glass Walls Sliding Glass Doors Lift Slide Doors Swing Doors Pivot Doors Casement Windows Awning Windows Tilt Turn Windows Mulled Windows Hopper Windows Fixed Windows Sliding Glass Windows Folding Glass Windows Curtain Walls Wood Curtain Walls Greenhouses Conservatories Sunrooms Canopies Pool Enclosures
Pool Houses
Walkways
Glass Railings
Fixed Skylights
Curb Mount Skylights
Barrel Vault Skylights

Double Pitch Skylights Dome Skylights Single Slope Skylights Pyramid Skylights Walkable Skylights Retractable Skylights 90° Operable Skylights













