



# TOMA

Vanguard Solutions



## CONTENTS

1

Product basics

2

Product installation explanation

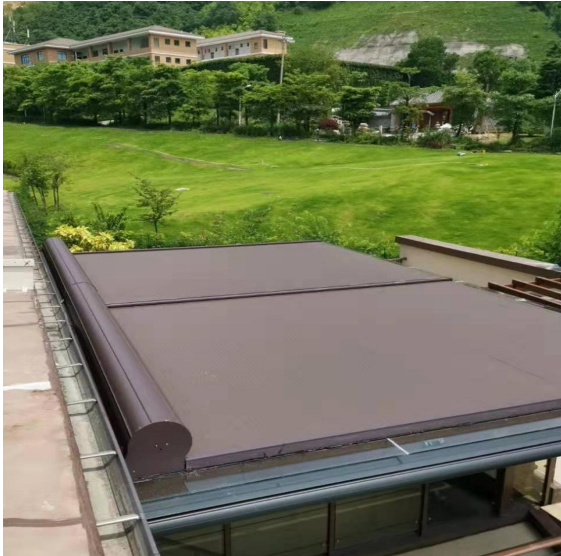
# Product Introduction

## PRODUCT

Product Name: Outdoor aluminum alloy

shading canopy

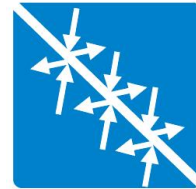
Application: residential sun room, commercial  
lighting roof



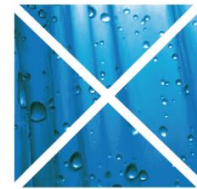
➤ Main functions of the product:



Block sunlight

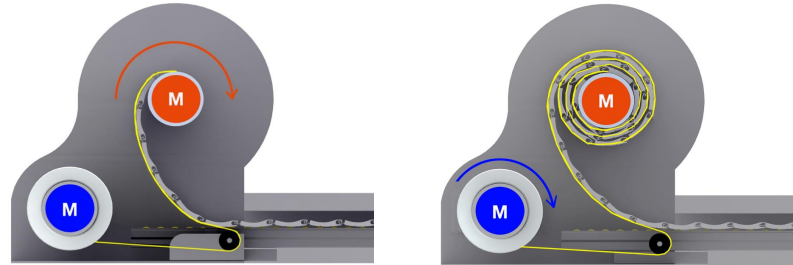


Thermal insulation



Anti-condensation

➤ Operating mechanism principle:



Dual motor push structure (patent protected); Stable operation,  
durable and quick installation

Product appearance series

PRODUCT



Grey



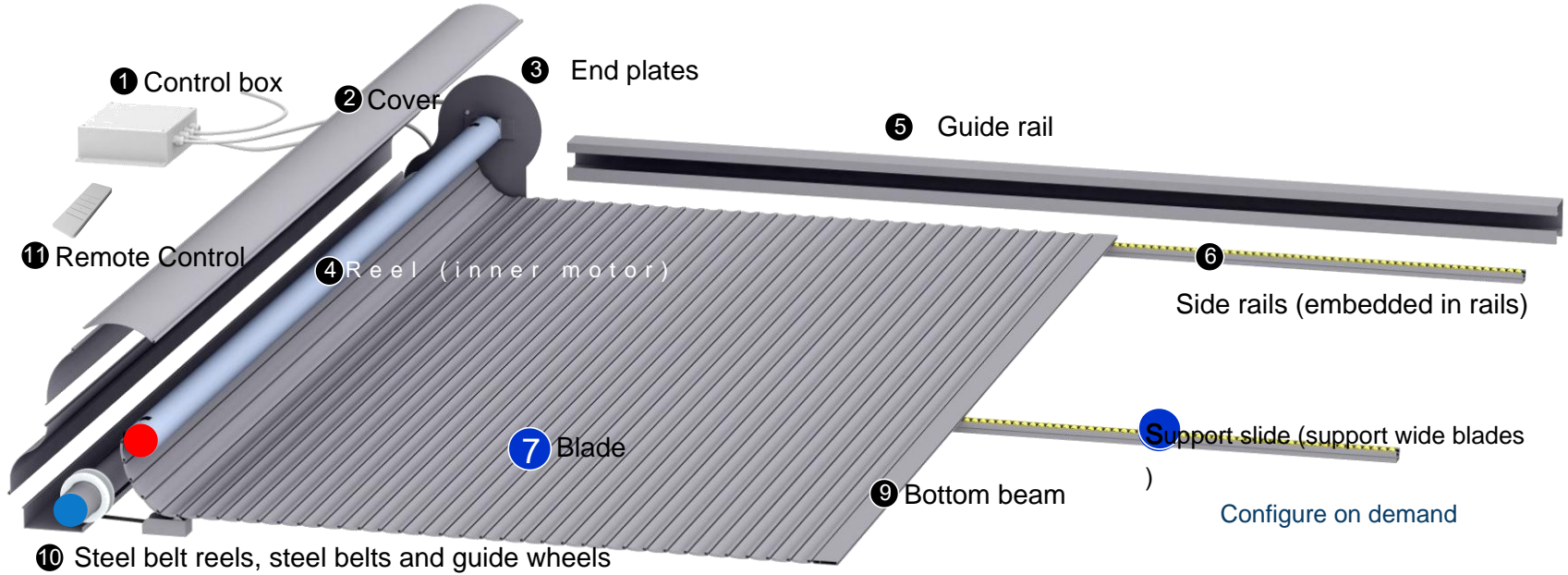
Coffee



White

# Product construction

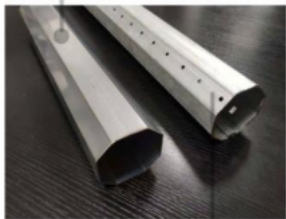
## PRODUCT



## PRODUCT

### 1 Reel

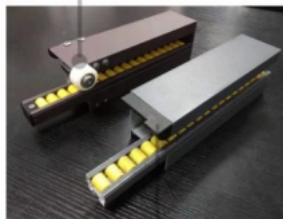
Stainless steel seamless welding reel bending and torsion resistance  
Closed waterproof, no rust



Galvanized cold rolled reel  
Resistant to bending and not torsion  
Easy to crack and rust

### 2 Guiding institution

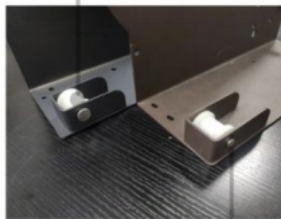
Patent-oriented institutions  
Stainless steel shaft, durable, stable and easy to install



Plastic friction guides  
Short service life  
Inconvenient installation, easy to hang the blades

### 3 Wheel

Reinforced stainless steel shaft pin diameter 10mm



Ordinary steel shaft pin diameter 6mm

### 4 Bearing

The thickness of the aluminum alloy bottom beam for metal canopy is 12mm, and the built-in stiffener is built-in  
Bending and wind resistance



Ordinary bottom beam thickness 8mm weak strength

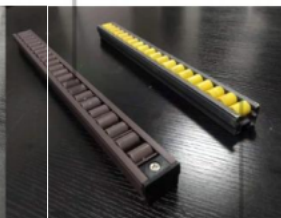
### 5 Support Rails

Closed-mouth design  
Firm and convenient fixing



Open design  
The fixation is not secure

Special sealing of the ball of the same color



Flower roller hand-sealed

### 6 Tail plugs

Ultra-thick modified nylon housing  
Double bearings guarantee concentricity of rotation



Thin injection molded housing, single bearings with poor concentricity

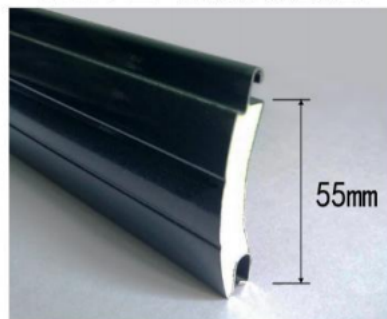
Ultra-strong and durable steel shaft diameter 20mm

No dedicated pivot

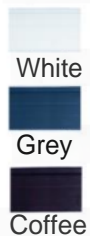
## Product blade series parameters

### PRODUCT

55# series full shading blade (aluminum alloy + polyurethane foam)



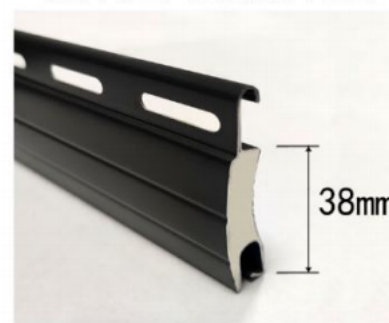
Color



Production parameters:

- The maximum production area of the single tree: 30m<sup>2</sup>,
- The maximum production width of the single tree: 5 meters,
- The maximum production length of the single tree: 6 meters

38# series "full of stars" blades (Aluminum alloy + polyurethane foam)



Color

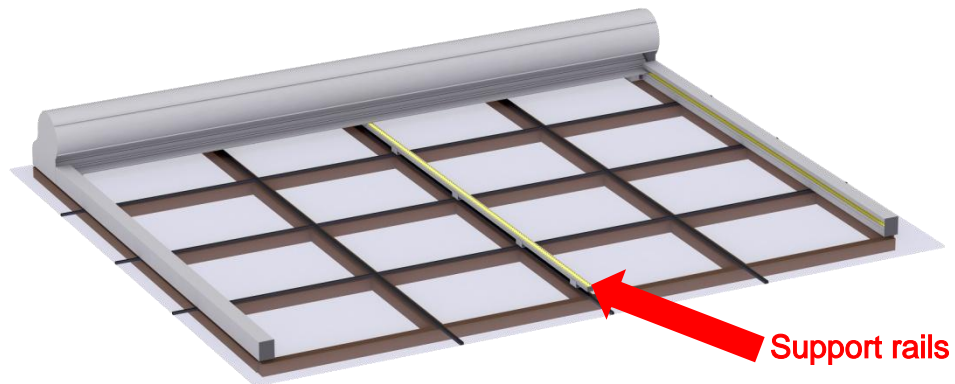


production parameters:

- Maximum production area: 25m
- Maximum production width of single tree: 5 meters
- Maximum production length of single tree: 5 meters

## The setting principle of the support slide

### PRODUCT

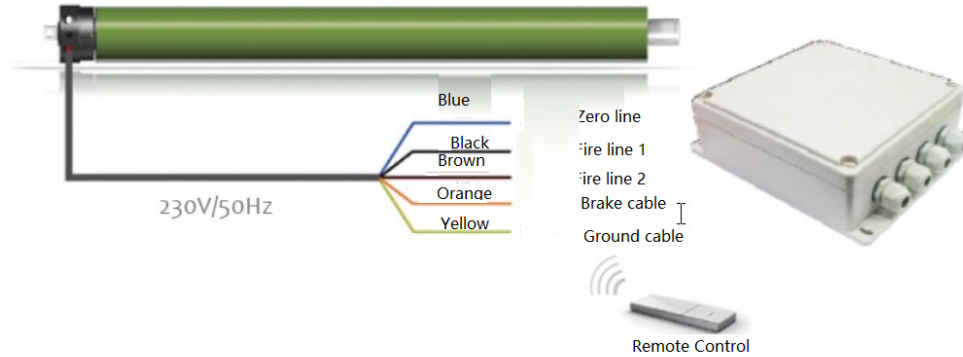


- Determination of the count of support slides. First, confirm the number of divisions in the width direction of the lighting roof occupied by a single canopy.
- According to the number of compartments and the selected blade specifications, the table is directly queried.
- Setting principles of support slides: Evenly distributed according to the number of divisions, the evenly distributed spacing is controlled at 2-2.5 meters or less.



# Control system

## PRODUCT



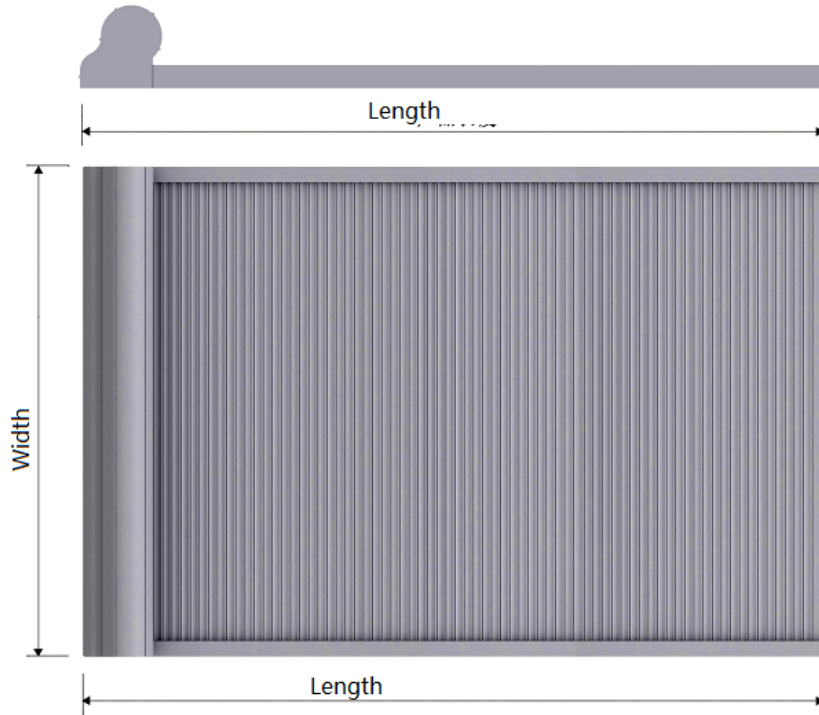
- Brand: Duya or Senfu
- FTS special motor 2 sets/set
- Rated torque: 40N.m
- Rated power: 255W/set

A light gray world map is centered on the page. Overlaid on the map is a blue callout box with a white border and a drop shadow. The box is shaped like a horizontal arrow pointing to the right. Inside the box, the text "Products Size" is written in white, sans-serif font.

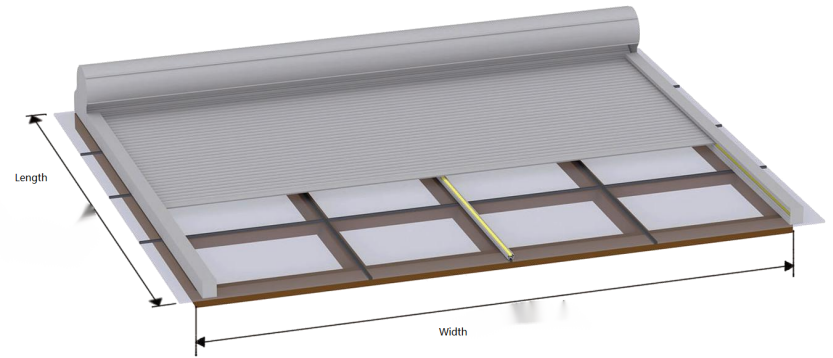
Products Size

# Definition of product width and length

## PRODUCT

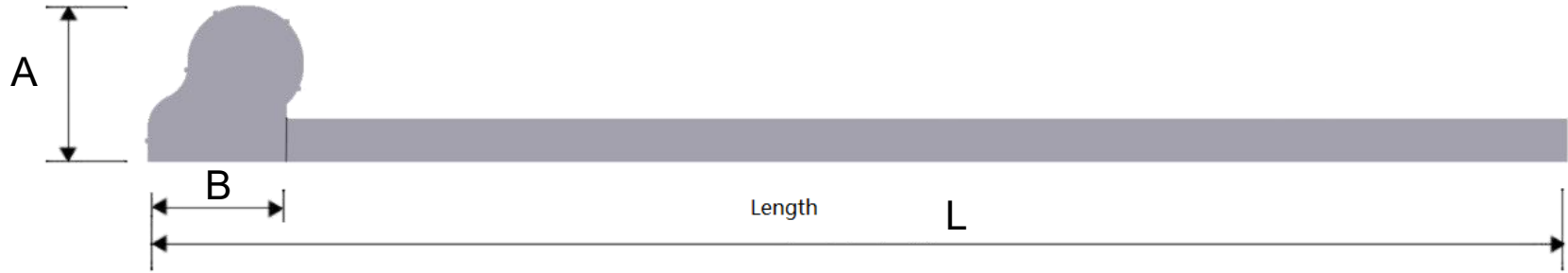


In general, the flow direction (from high to low) at the top of the sun room is the length direction of the product.



## Product length and size of the shutter box

### PRODUCT



- 1# :  $0 < L < 2.2M$  ,  $A=260mm$ ;  $B=275mm$   
2# :  $2.2 < L \leq 3.2M$  ,  $A=310mm$ ;  $B=310mm$   
3# :  $3.2 < L \leq 5.2M$  ,  $A=370mm$ ;  $B=355mm$   
4# :  $5.2 < L \leq 7.5M$  ,  $A=430mm$ ;  $B=425mm$



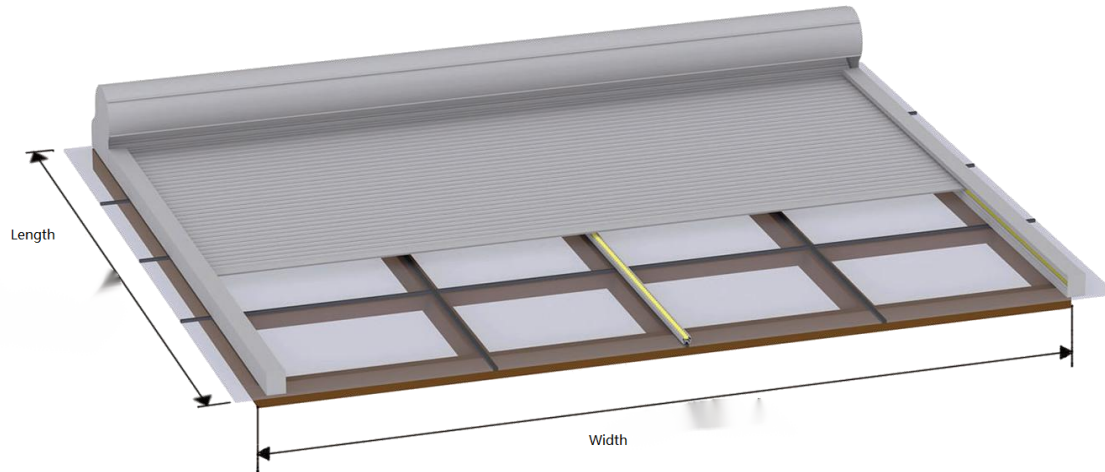
## Measurement of dimensions

### PRODUCT

#### A. Measurement method for flat tops

Product length = total glass length (flow direction)

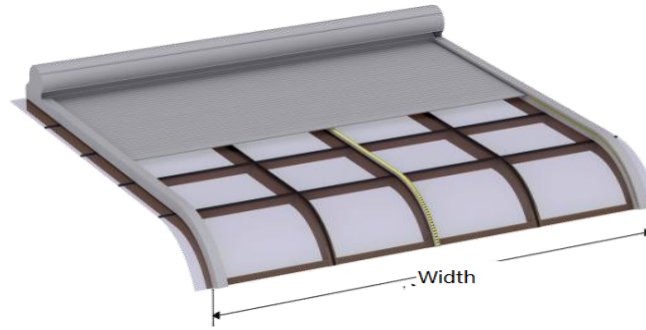
Product width = overall width of the outer mouth of the top frame (load-bearing)



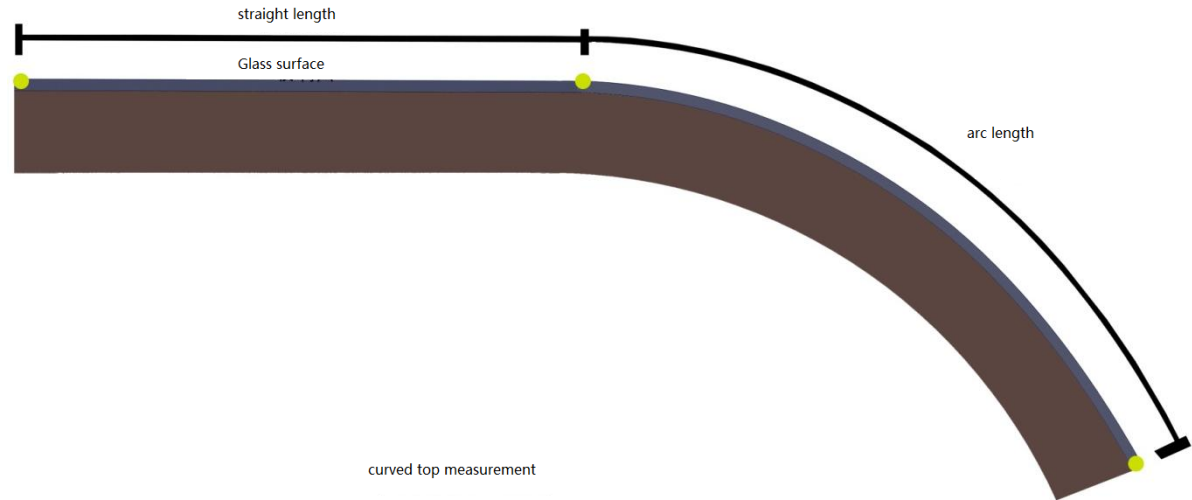
## Measurement of dimensions

### PRODUCT

**B. Measurement method of arc top**  
Product length = straight length + arc length  
Product width = overall width of the outer mouth of the top frame



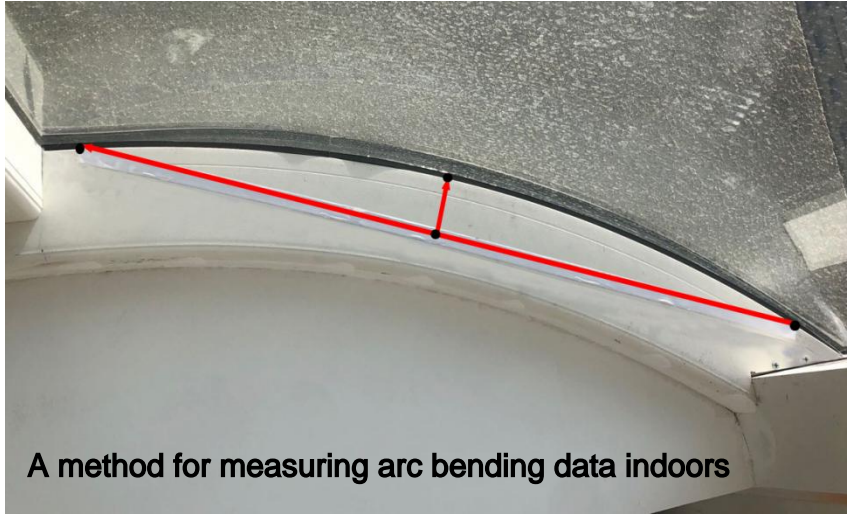
**Measure arc length**  
**Method 1: Direct on-site lofting,**  
trace the contour line of the  
glass surface, and measure the  
straight length and arc length  
of the glass surface.



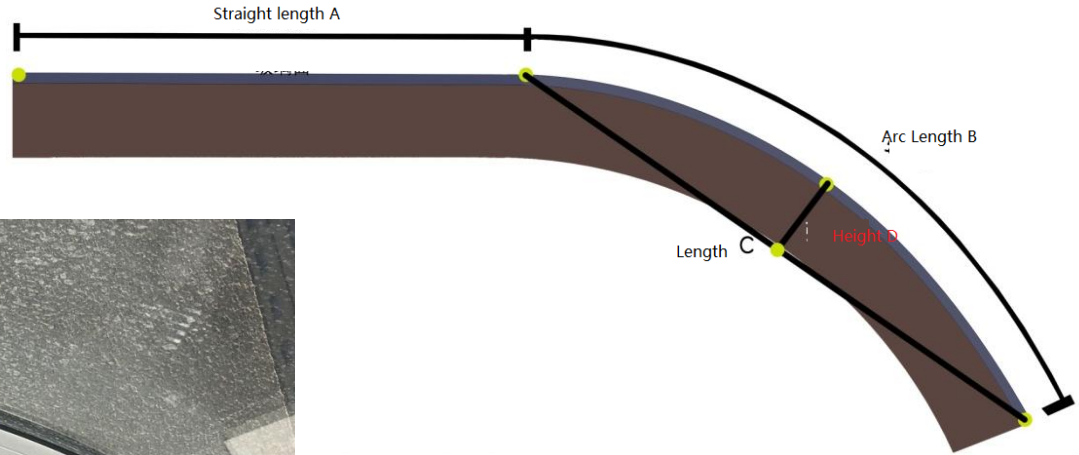
## Measurement of dimensions

### PRODUCT

**Method 2: Directly measure the linear length, arc length, chord length and chord height of the glass surface.**



A method for measuring arc bending data indoors

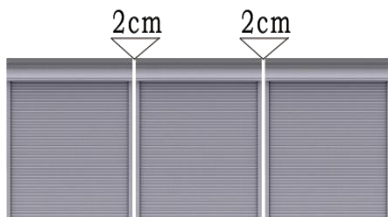


## Measurement of dimensions

### PRODUCT

#### Measurement Notes:

a. When the multi-canopy is side by side, leave a gap of 2cm in the width direction.



b. Pay attention to whether the width and length direction of the product have the influence of eaves.



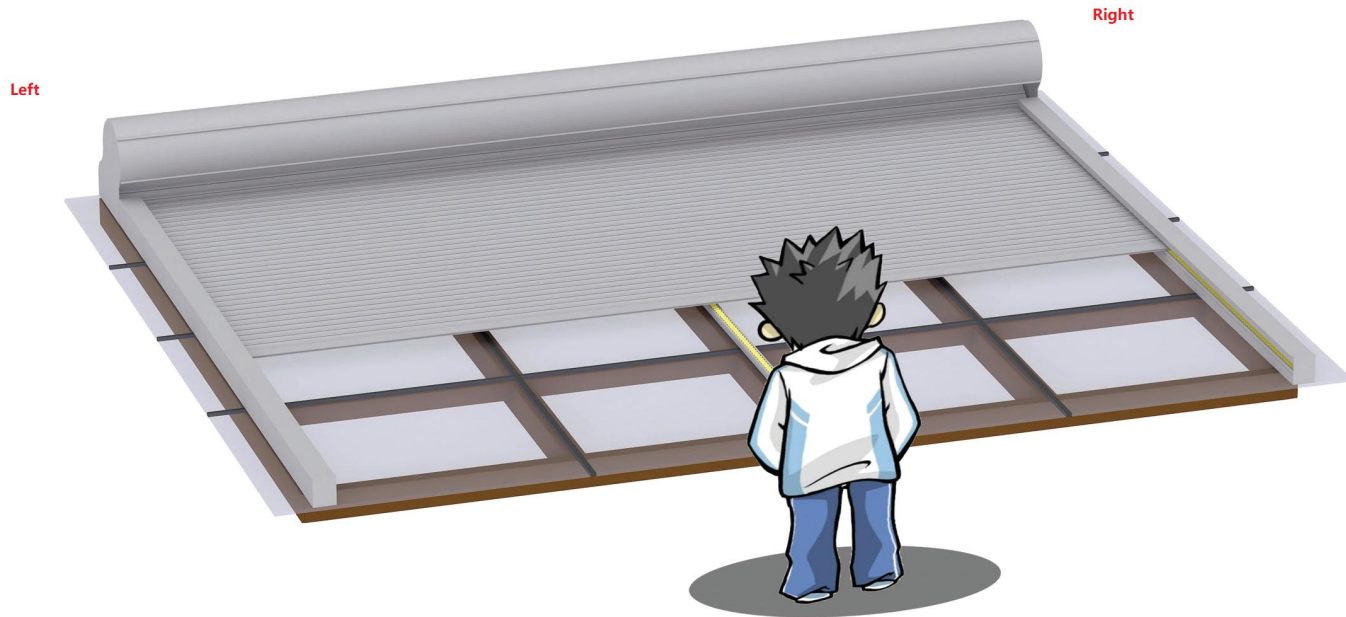
- Notes:
1. The default width size of the order is the size including the side decorative cover,
  2. Because there is a decorative cover on the side, when multiple pairs of sky curtains are rowed, the gap between the middle guide rails is 30MM, not the guide rail is close to the guide rail;
  3. When encountering the left and right sides of the roll box against the wall, it is necessary to deduct 10MM measurement on the basis of the net size of the measurement to prevent it from being put in.



# Power direction

## PRODUCT

- The principle of identifying the direction of the power supply: define the left and right sides of the surveyor facing the canopy.



A light gray world map is centered in the background. Overlaid on the map is a blue callout box with a white border and a drop shadow. The box has a hexagonal shape with pointed ends and contains the text "Common production scenarios" in white. The map shows the outlines of continents including North America, South America, Europe, Africa, Asia, and Australia.

Common production scenarios

# Common production scenarios

## PRODUCT

**Go Straight**



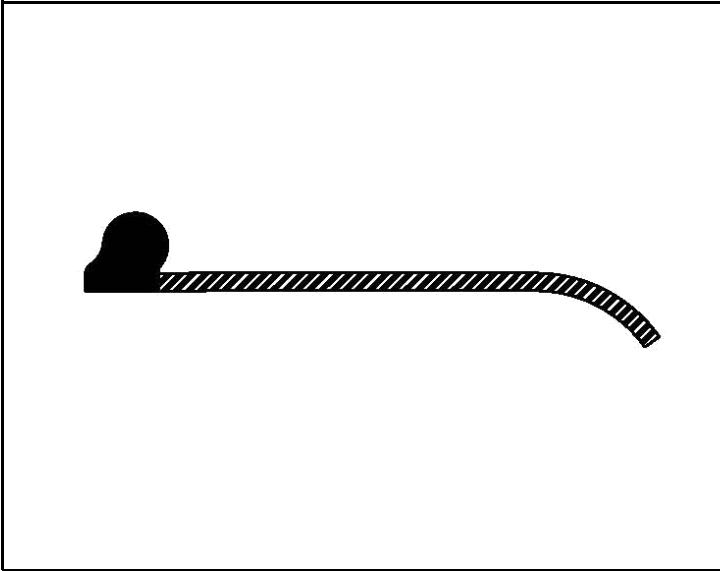
**Examples**



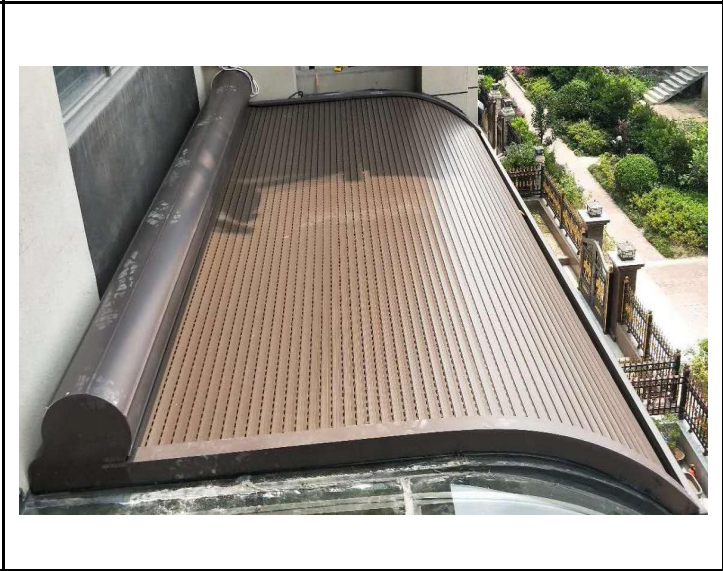
# Common production scenarios

## PRODUCT

Arc rows



Example



# Common production scenarios

## PRODUCT

Push slope shape



Example



# Common production scenarios

## PRODUCT

Slope-shaped-1



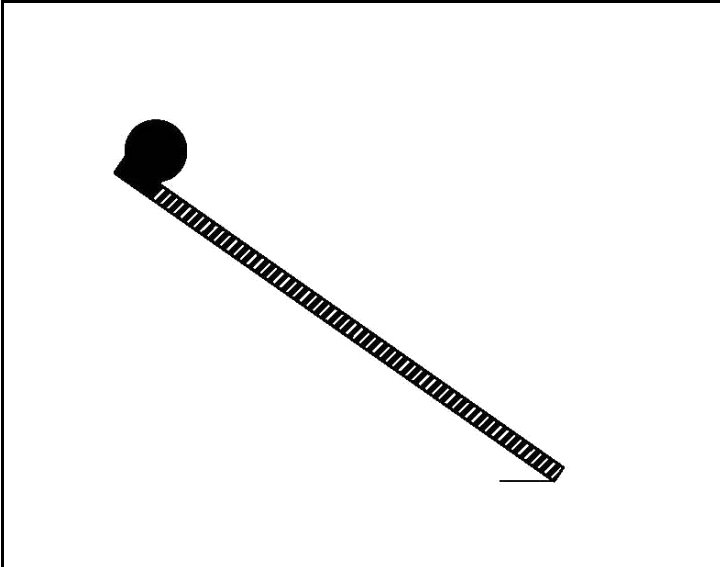
Example



# Common production scenarios

## PRODUCT

Slope-shaped-2

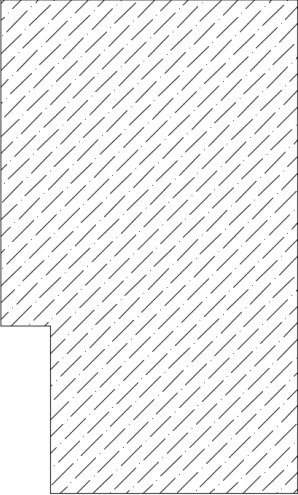
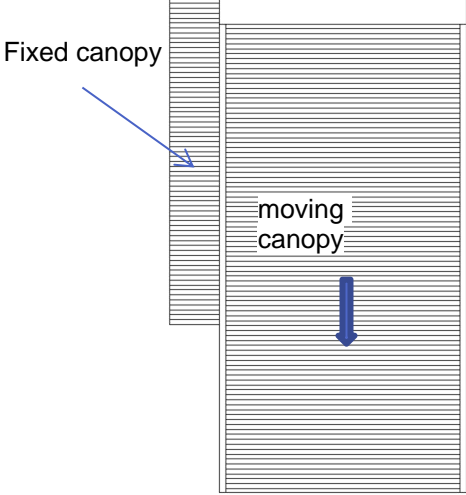
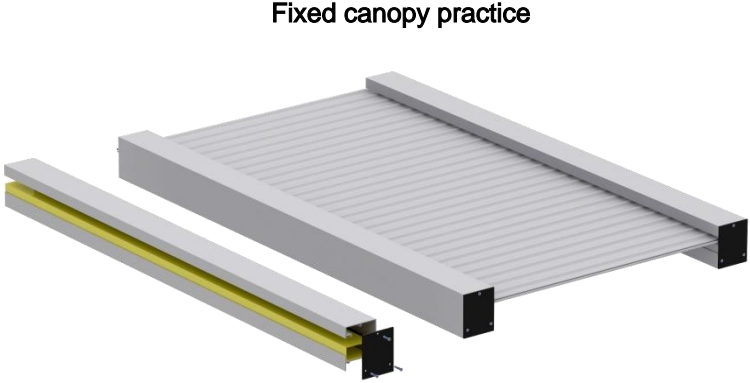


Legend (single motor)



# Special-shaped crafting scheme

## PRODUCT

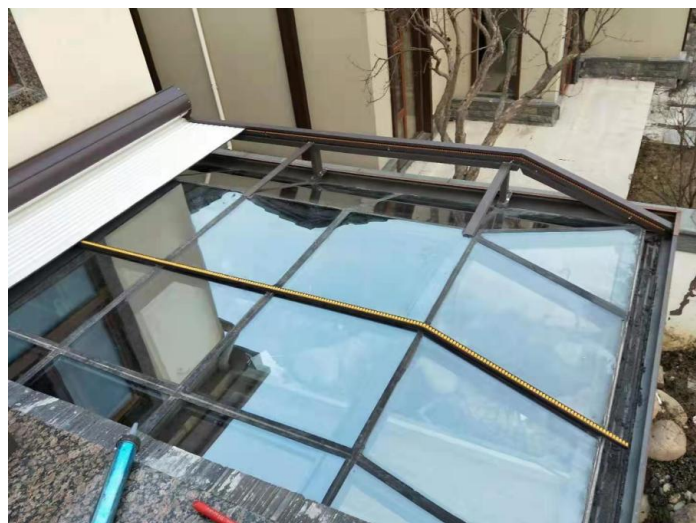
Planar alien	Example	
		 <p data-bbox="1302 463 1566 492">Fixed canopy practice</p>



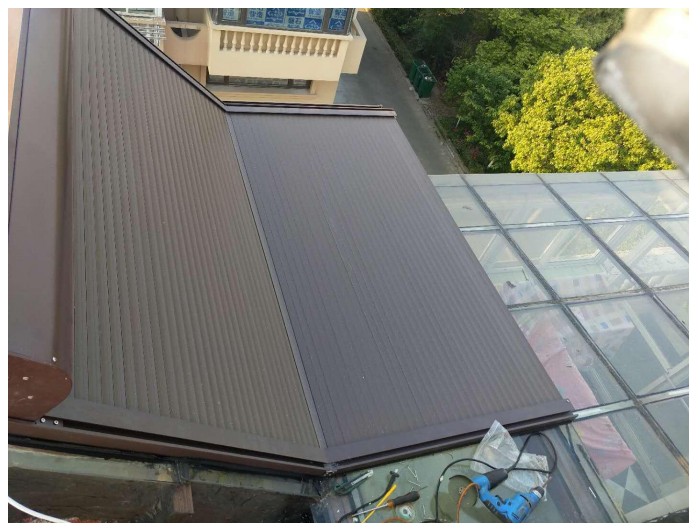
## Special production schemes

### PRODUCT

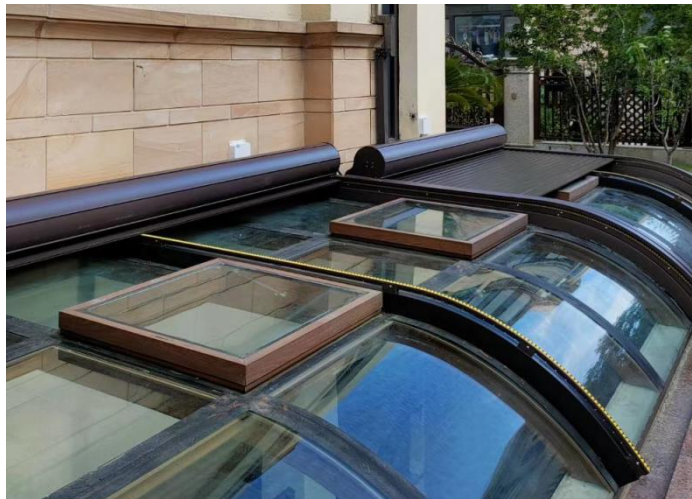
Example



Example



Example



Example



## Wind protection measures

### PRODUCT

Wind and rain controller



Windproof bracket



A light gray silhouette of a world map is centered in the background. Overlaid on the map is a blue, arrow-shaped button pointing to the right. The button has a white border and a slight drop shadow.

Installation instructions

## Product arrival form

PRODUCT



Arrival specifications

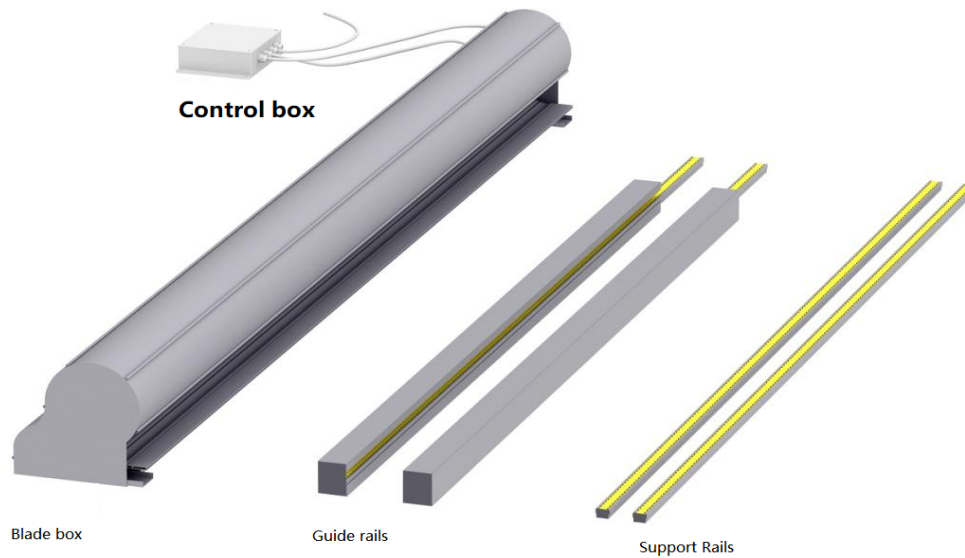


Accessories details



# Product arrival form

## PRODUCT



Straight canopy arrives at the main part

## Product arrival form

### PRODUCT



The curved canopy arrives at the main part

## Selection of structural adhesives

### Recommended Use: 995 Neutral Silicone Structural Adhesive

Model: 995

Name: Neutral silicone structural adhesive

Brand: unlimited (choose local common products packaging: flexible packaging)

Use parts: roller shutter box base, U-shaped fixed code bottom, guide rail and glass surface contact edge seam reference dosage: about 2 pieces for a pair of canopies; About 3 canopies are used for two pairs.

The curing process of silicone glue is developed from the surface inward, and within 5~10 minutes after the glue surface is applied, it is necessary to place the shutter box in time for bonding. 995 structural adhesive, the conventional complete setting time is 2~4 days, and the outer layer of 3mm has been cured within 24 hours. The aluminum alloy canopy can be used normally 24 hours after the installation is completed.

When selecting glue, the name should have the word "XXX structural adhesive", pay attention to the difference between ordinary weather-resistant sealant. In addition to the characteristics of weather-resistant sealant, neutral silicone structural adhesive also has stronger bonding properties than weather-resistant sealant, mainly plays a bonding role, and is used for structural and non-structural assembly bonding of various curtain walls. The simple weather-resistant sealant is mainly used for sealing caulking between materials, mainly for waterproof sealing of joints. The two are not used in one place.

**Note: 995 neutral silicone structural adhesive is a commonly used structural adhesive, users can also choose better performance structural adhesive, the choice is based on the use of structural adhesive warranty life, the longer the better.**





## Installation steps

### PRODUCT

- 1、 Review the product and top layout dimensions, and make a position layout. Clean the glass top and let it dry to prevent slipperiness.

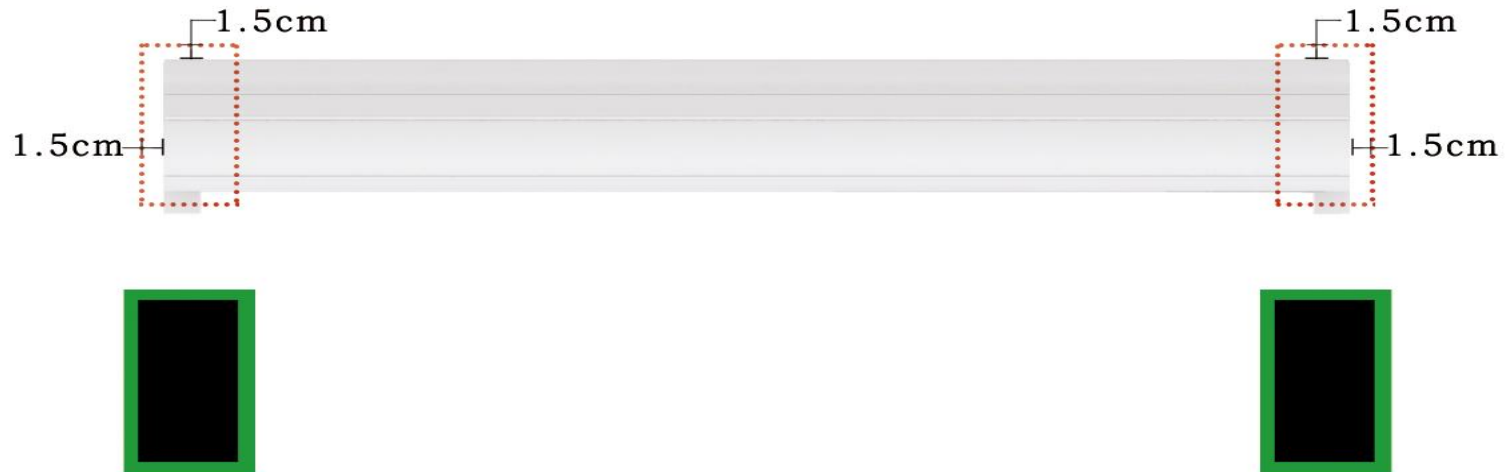


## Installation steps

### PRODUCT

#### 2. The roller shutter box is fixed in place :

A. Place the gluing lofting template provided with the box in the installation part of the base of the end plate of the roller shutter box, place it in the following figure, and paste masking paper along the edge of the template after placement. After the masking paper is applied, remove the template and apply it evenly within the masking area. Tear off the masking paper about 5 minutes after the application is complete and put the shutter box in place.



## Installation steps

### PRODUCT

**B. The roller shutter box is fixed in place**



# Installation steps

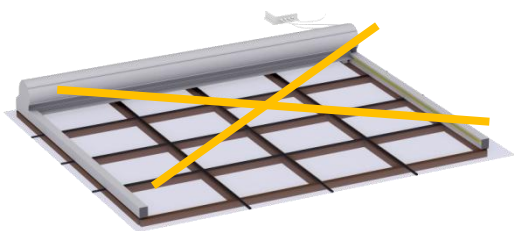
## PRODUCT

Rail fixation:

A. Size review, draw reference lines

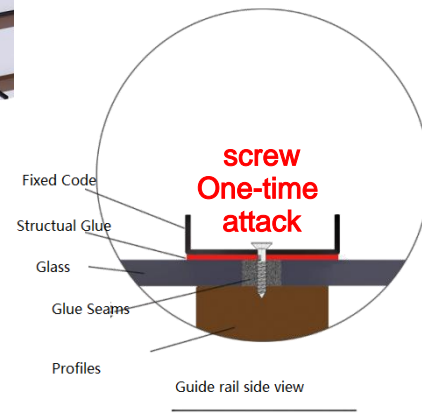


Top and bottom size review



Diagonal size review

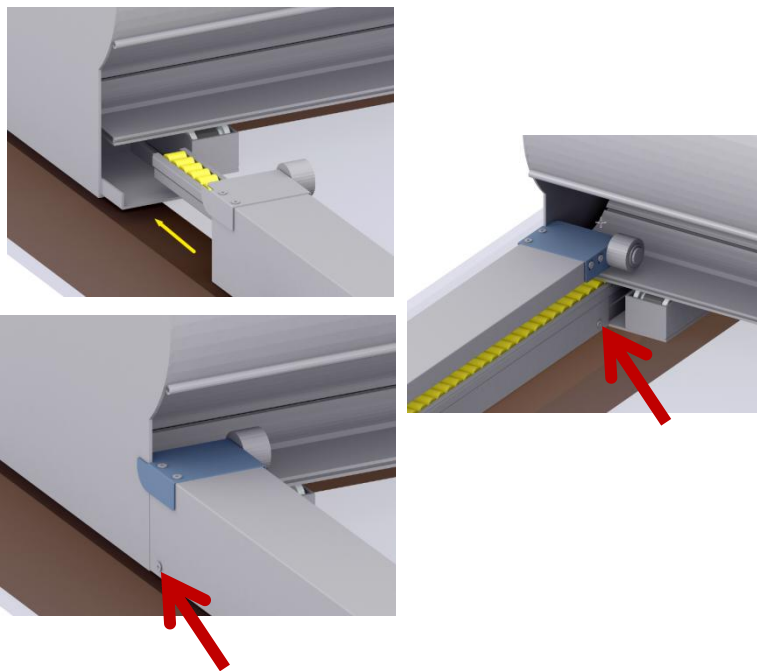
B. Fixed code installation (first use a drill to punch a small hole, and then use a self-tapping screw to enter at one time)



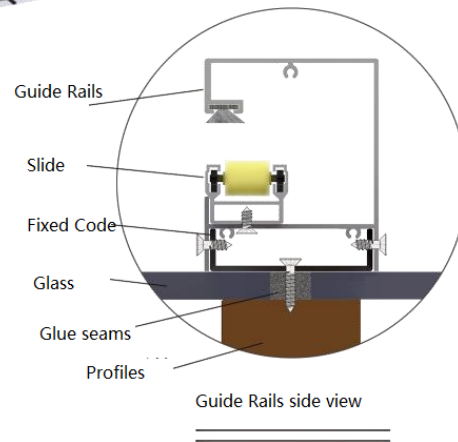
## Installation steps

### PRODUCT

#### C. Rail plugging



#### D. Rail fixation

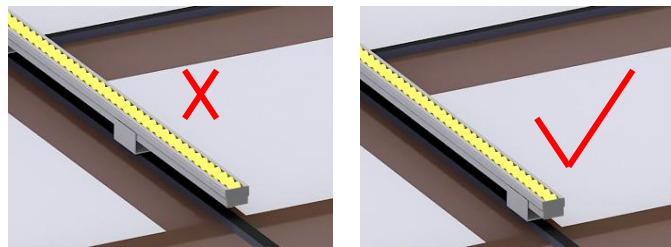


# Installation steps

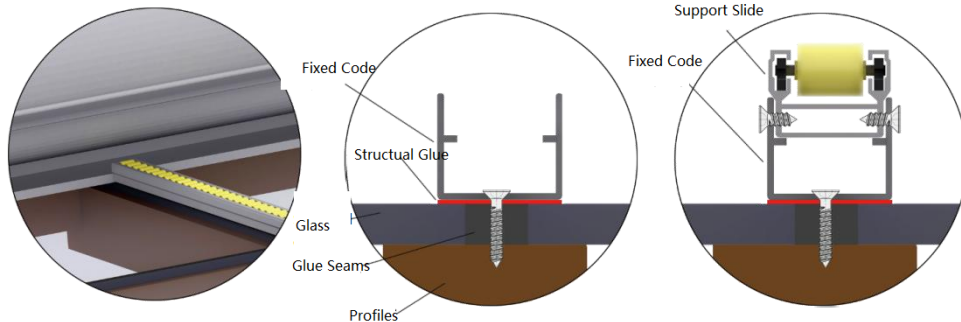
## PRODUCT

### 4. Support slide rail fixation

:



**Note: The U-shaped fixed code position of the tail should not be too far from the end, and it is advisable to be about 5cm away from the end.**



Schematic diagram of the straight end of the support slide

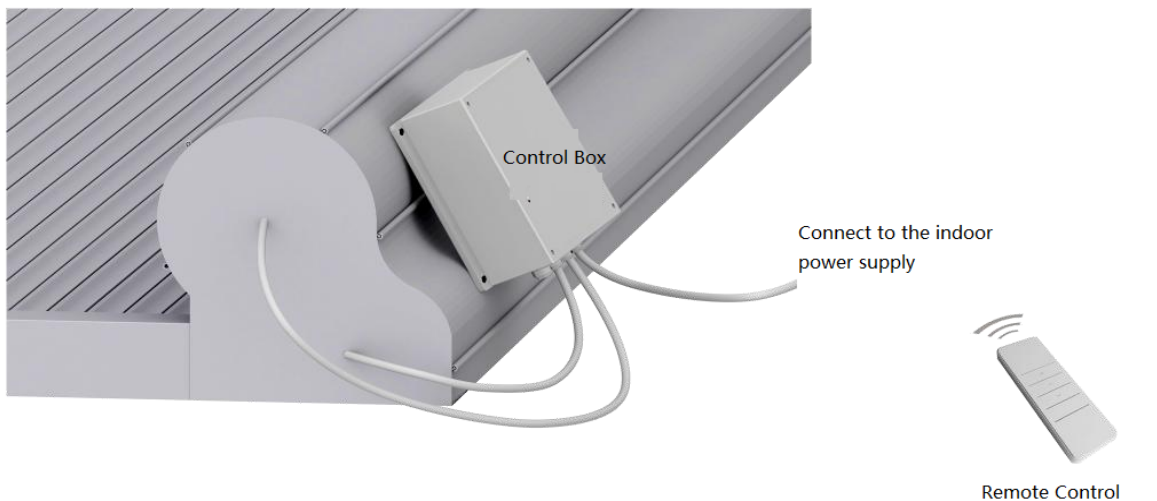
Fixed code fastening

Support slide diagram

## Installation steps

### PRODUCT

5. Wiring, power on, debugging, complete installation.



#### Note:

The control box should be placed in a sheltered place or fixed behind the shutter box, the fixing screw should not be too long, otherwise it will damage the blade and affect the blade rotation. **Never place the control box in a place where water is likely to accumulate.**

#### Notes:

1. When wiring, the power cord should be protected with PVC line pipe or threaded pipe;
2. Before operation, check whether the power supply is energized and whether the wiring is loose;
3. During the first operation, the handheld remote control first presses the run and stop buttons to test a short section of operation, and then presses the run to run directly, if there is an abnormal situation during operation, stop at any time, and run the whole operation once after troubleshooting to complete debugging.

## Curved rail assembly

### PRODUCT

#### 1. Guide rail comparison cutting:



A. Alignment cutting curved ends



B. Alignment cut straight ends



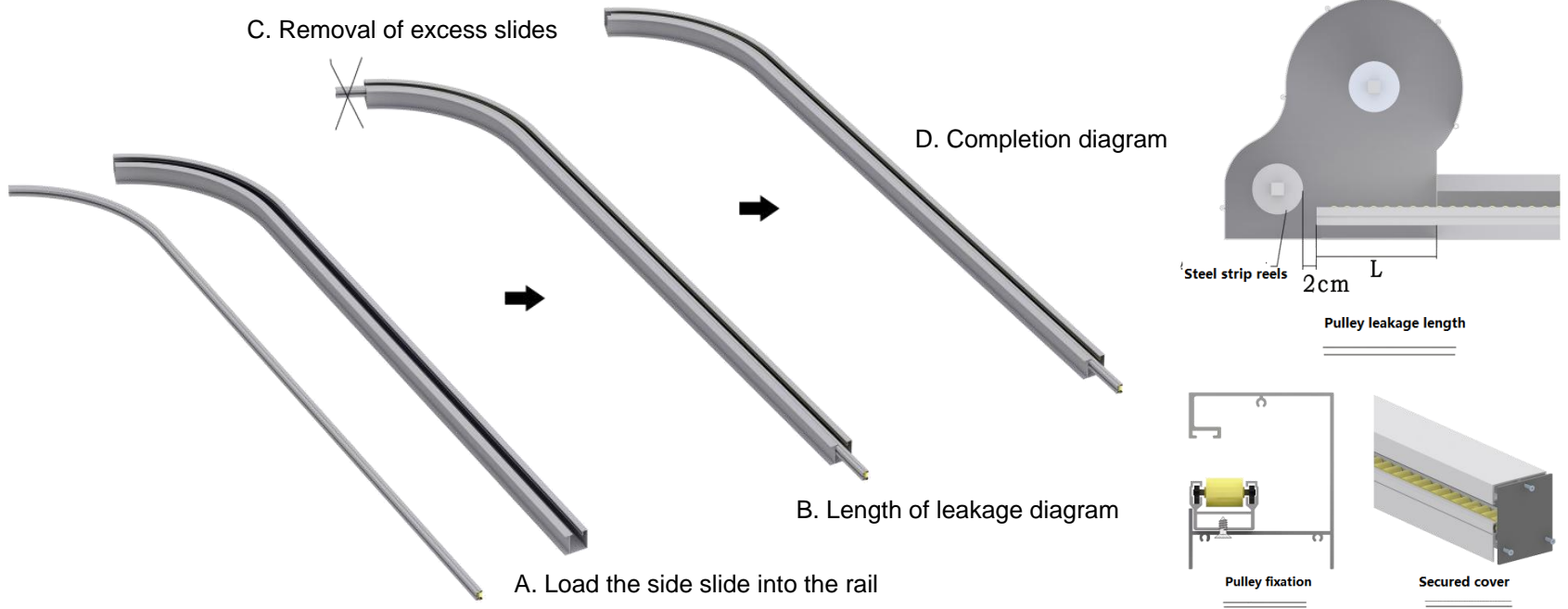
C. Alignment cut complete



# Curved rail assembly

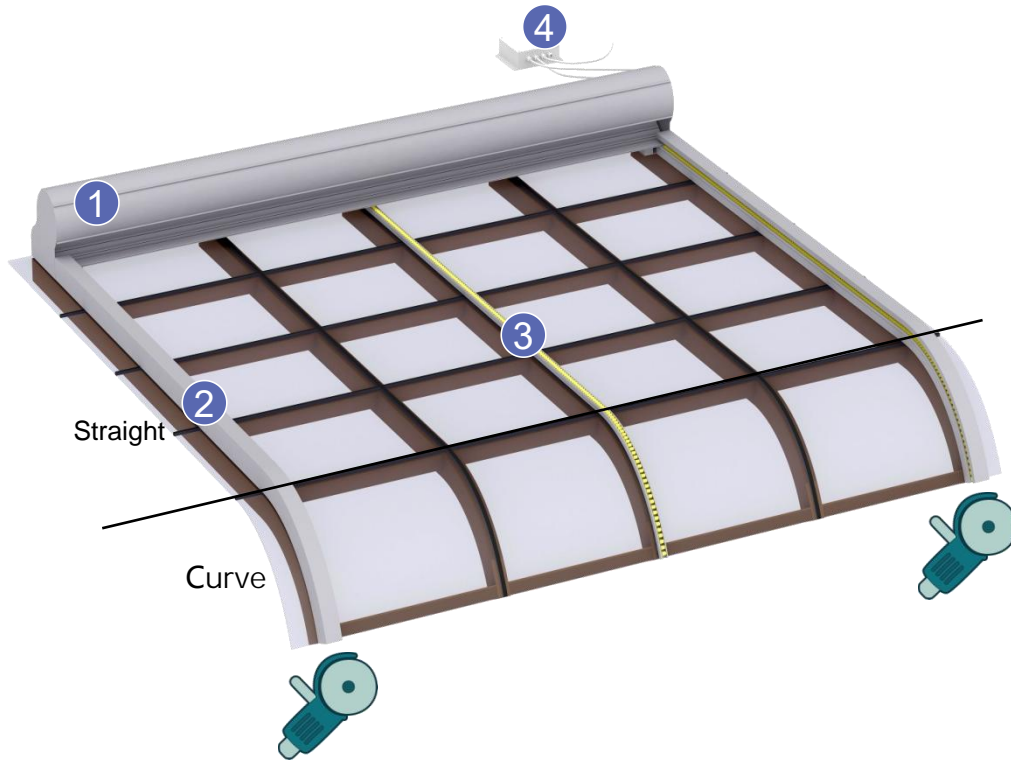
## PRODUCT

### 2. Slide rail cutting assembly:



## Installation summary

### PRODUCT



Main steps:

1. Fix the roller shutter box

**2.** Fixed rails

3. Fixed the support rail

4. The wiring is energized and the debugging is over



**THANKS**