

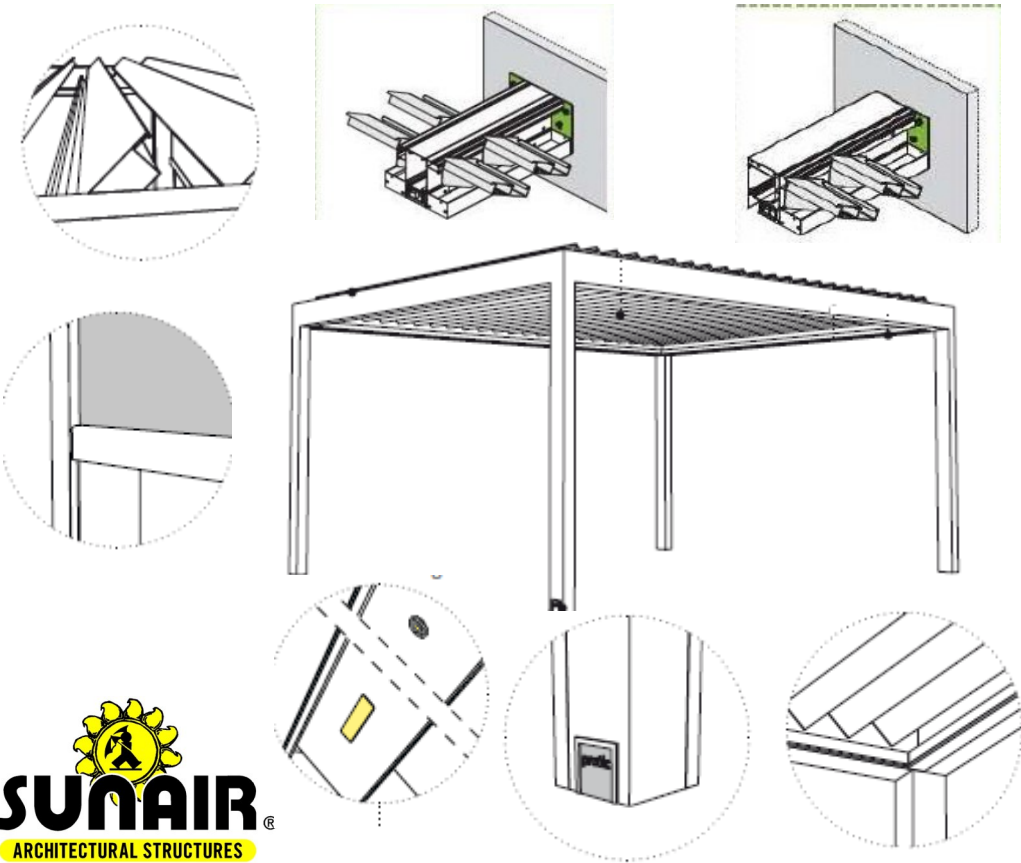
# Model: OPERA & VISION Adjustable Louvered Pergola®



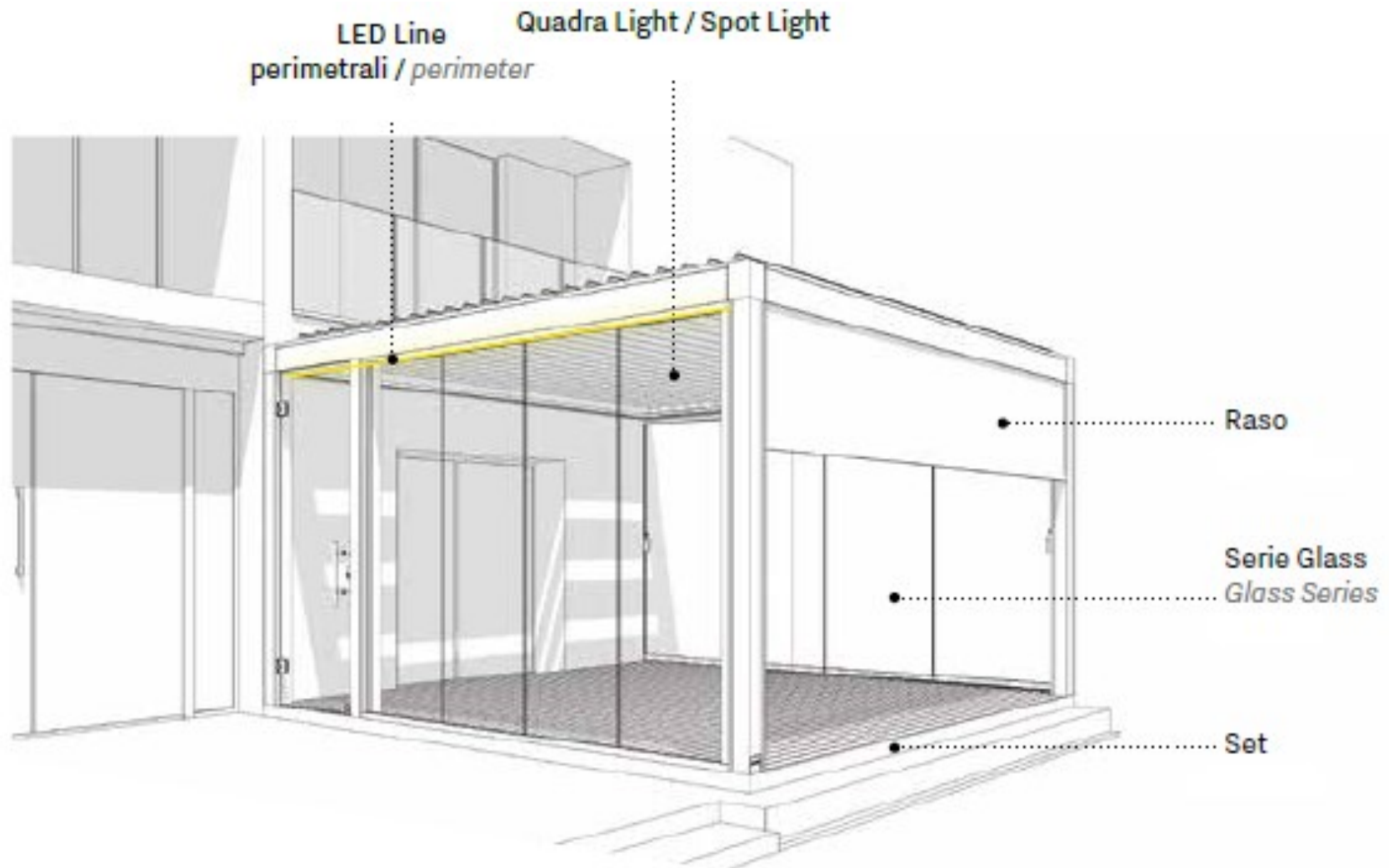
Application	Maximum Width	Maximum Projection	Options
Free Standing or Wall Mounted Commercial & Residential	5 m H 51 / 5.5 m H 62 16' 5" / 18' wide Per module	*7 m Opera *6.9 m Vision 22' 11" / 22' 7 5/8" proj.	LEDS, Heaters, Side Screens Set Flooring Slide Glass

### PRODUCT FEATURES:

- Motorized Louvered roof pergola.
- Adjustable blades up to 140°
- Ideal for free standing or wall mounted applications.
- Internal gutter and downspouts for water drainage.
- Designed to withstand some loads. Please inquire with Sunair office.
- Sloped louvers for drainage into gutter
- Multiple modules can be mounted side by side with common posts to create larger width.
- All aluminum frame powder coated.
- Motorized all sizes.
- Screens optional on OPERA model only.
- Ideal for adding roll down zipper screens to create an enclosed space.
- Powered with a LINAK motor.



# FUNDAMENTALS: OPERA & VISION



# OPERA & VISION: Commercial Installations



# OPERA & VISION: Residential Installations



# OPERA & VISION ADVANTAGES

Blades Closed



Blades opened 45 degrees



Blades opened 90 degrees



Blades opened 140 degrees



Blades opened on side



Solar Modulation



Air Recirculation



Rain Protection



Load Resistance



Opera and Vision have been tested to see how waterproof they are by the Giordano Institute which simulated rain equal to 369 mm / hour with pressure of 3.4 bars during an unidentified amount of time. An Opera 14' 9" wide x 19' 8" projection (450 cm wide x 600 cm projection) with two rain events or

# **ADVANTAGES con't**

The OPERA & VISION can be wall mounted or free standing structures. The supporting profile and guides are 8 ½” high (22 cm). Posts are 15 cm x 15 cm (Foot plate is wider).

Water management within the gutter system and discharge within the posts is a Pratic patent. Optional telescoping post feet are available for ease of installation.

For greater perimeter protection, the OPERA model can be configured with optional retractable RASO zipper screens hidden within the beam system.



Optional Comfort louvered blades or foam filled louvers minimizing noise from “rain”

The OPERA & VISION offer more pre-assembled structure components for a safer and easier installation on site.

The OPERA & VISION RGB LED multi colored lighting offers a fascinating elegant remote controlled lighting option (White lights included).

OPERA & VISION is a solid, made to measure structure that can reach large sizes (18’ x 22’11” for Opera model). Coupling of multiple structures to make larger sizes is possible with common posts .

## ALUMINUM



The Bioclimatic Pergola Opera / Vision, and Rialto screens are made of all extruded aluminum profiles.

## STAINLESS



Brackets, pins, plates and screws of the entire line are made of 304 & 470 stainless steel. These alloys are recognized to resist rusting.

## PATENTS



Pratic filed 6 patents that protect the technical and functional characteristics of the bioclimatic Pergola®, patents that guarantee the uniqueness and quality of the Opera and Vision models along with the Raso screens.

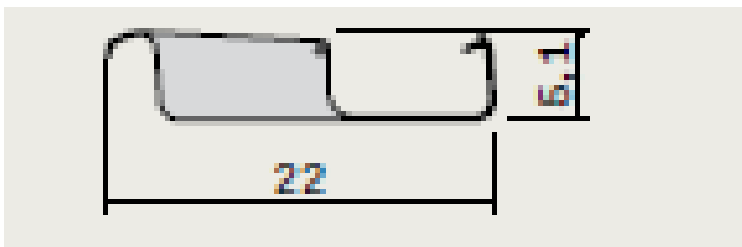
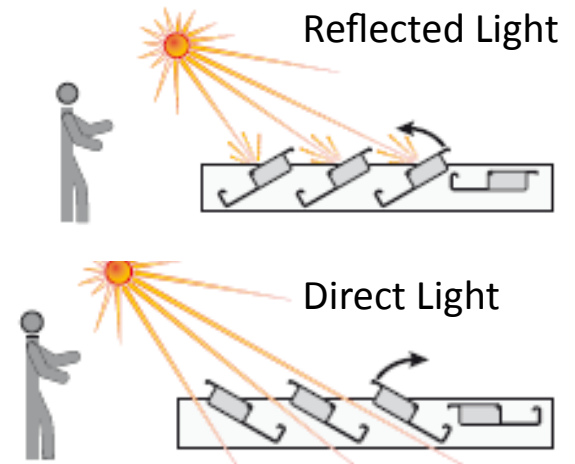
## FINISHES & PAINTING



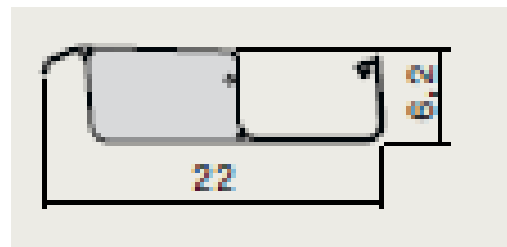
In the coating process the aluminum profiles and steel components are subjected to a special "pretreatment" which improves paint adhesion and resists corrosion. The powder coat paint process is applied according to "Qualicoat" standards which guarantees the painted aluminum parts.

# LOUVER OPTIONS: OPERA: & VISION

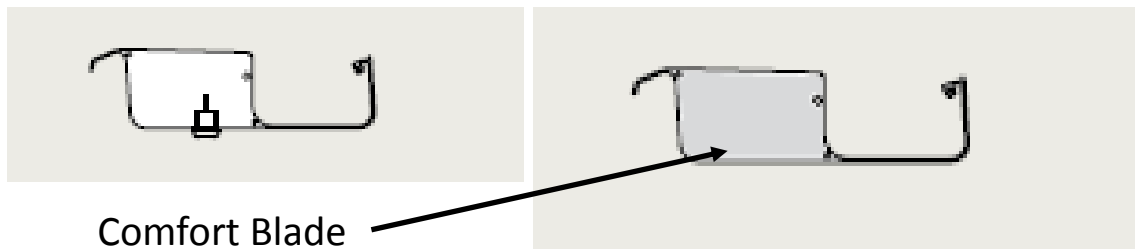
For best sun blocking affect and ability to adjust the louvers so that you block the sun while also allowing filtered light through openings of the louvers it is best to configure the louvers to run parallel with NORTH / SOUTH. It is also best to configure the louvers so that they reflect the sun in afternoon “Reflective Light”. The person to right is positioned at front of awning system and louvers can adjust 140° towards person depicted in illustration.



H62 Louver max width 5.5 meter / 18 ft wide



H51 Louver max width 5 meter / 16' 5" wide



Comfort Blade

Foam filled

Comfort Blade is an optional foam filled louver minimizing noise from “rain”

**NOTE: Not available with Spot**



## WATER TEST



Opera, Vision, have been tested to see how waterproof they are by the Giordano Institute. They tested for water tightness ( blades, gutters and drainage) using the test system certified by the Giordano Institute ( Test report no. 319934).

*The tests were conducted and certified by:*



### **DESCRIPTION OF TEST**

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*The test was performed on an Opera bioclimatic pergola measuring 450 cm x 600 cm and on a Nomo bioclimatic pergola measuring 550 cm x 700 cm, professionally installed, simulating precipitation equal to 369 mm per hour and at 3.4 bars pressure, three times the reference value of 100 mm per hour (corresponding to a artificial cloudburst) as required by standard IEC 60721-2-2.*

*Particular weather conditions and/or particular types of installation can create unforeseeable operating conditions and/or in any case different from the laboratory tests we have carried out and/or can cause water seals, static seals etc. different and/or inferior comparing to the simulations carried out in the laboratory.*

### **RESULT**

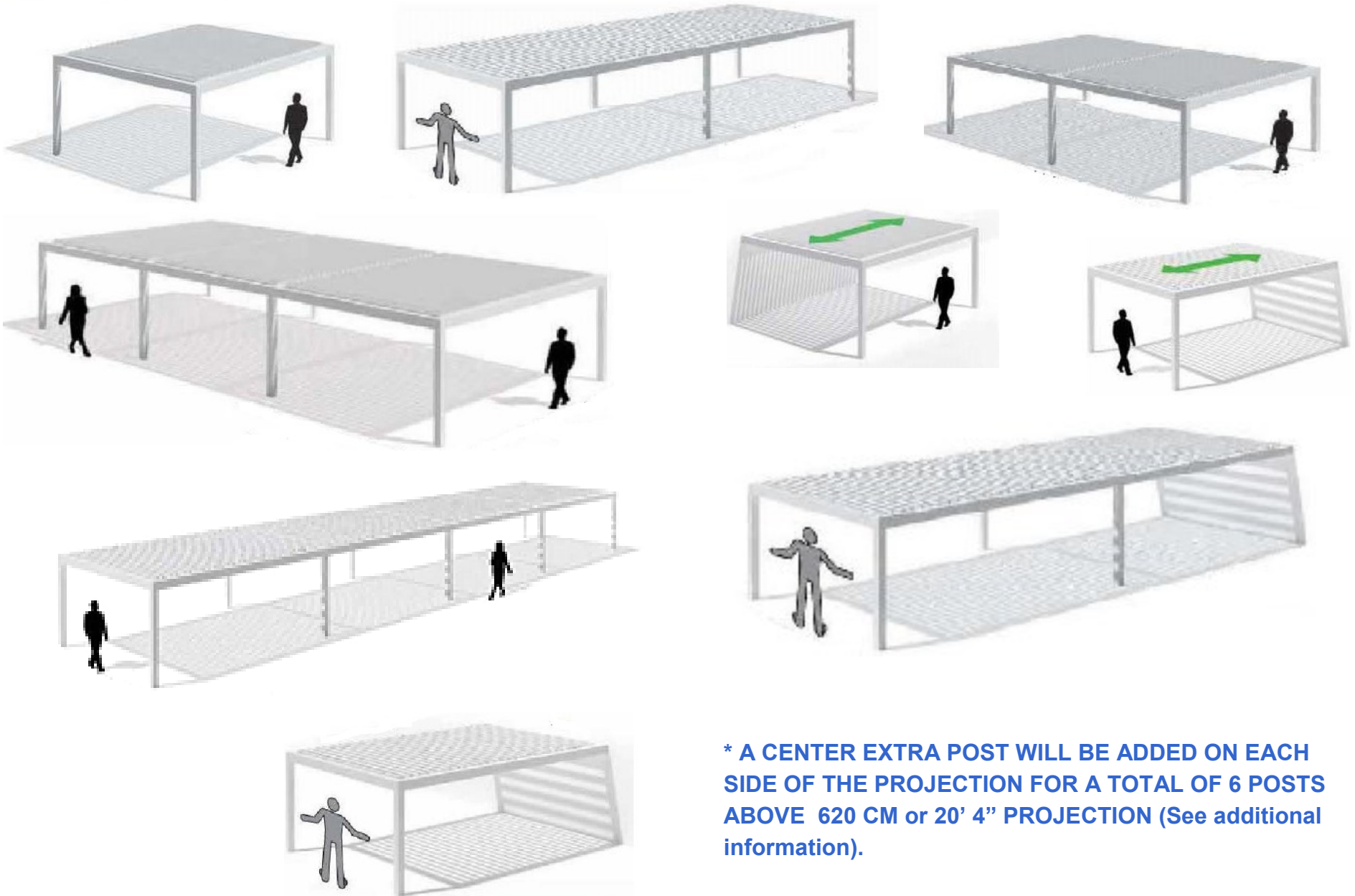
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*«No water infiltration inside. Correct drainage with no accumulation.».*

## SNOW LOADS

Opera, Vision, have been tested to allow for some snow load when in use. Please refer Pratic documents calculating maximum permissible snow loads for each system by size. Special care must be taken when using the Louvered system in snow conditions.

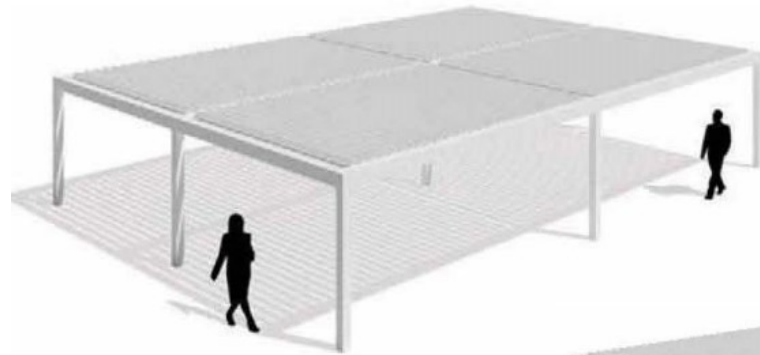
# OPERA & VISION: Some possible model configurations



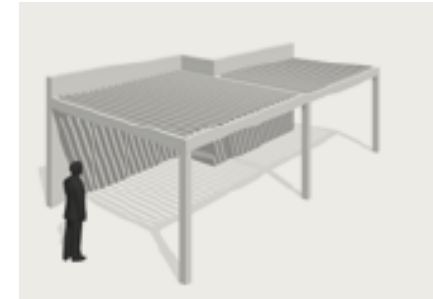
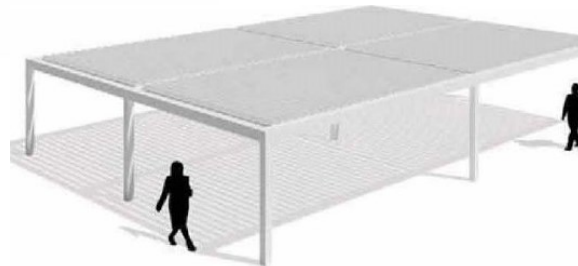
**\* A CENTER EXTRA POST WILL BE ADDED ON EACH SIDE OF THE PROJECTION FOR A TOTAL OF 6 POSTS ABOVE 620 CM or 20' 4" PROJECTION (See additional information).**



# Out of standard configurations



**Inquire with Sunair office on any system that pairs modules on both the (L) width side and (P) projection side simultaneously at the same time.**



Vision model only.



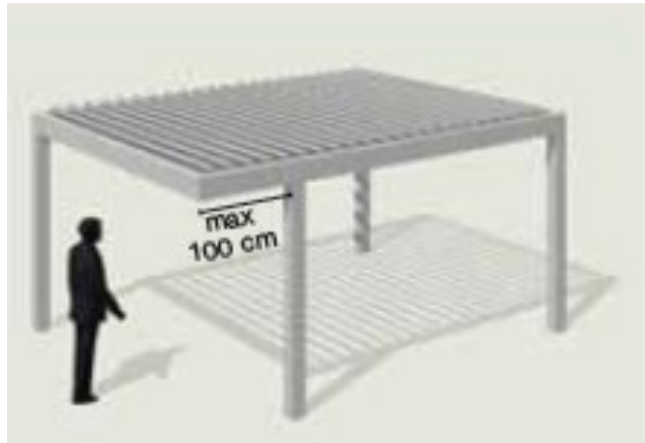
**Also inquire on uneven sections or modules to be joined.**

**Inquire with Sunair office on this possibility eliminating center post at front**

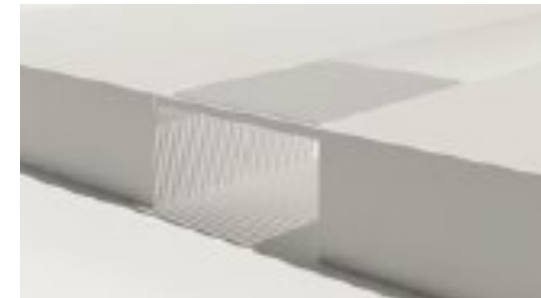
**Available with Vision Model only Max width 6 meters x 4 meters projection (19' 8" Wide x 13' 1 1/2" Projection). Optional cantilevered posts not available in this configuration.**



# Other Options (Please inquire with Sunair feasibility)



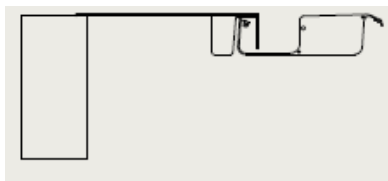
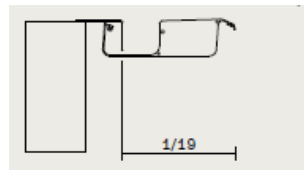
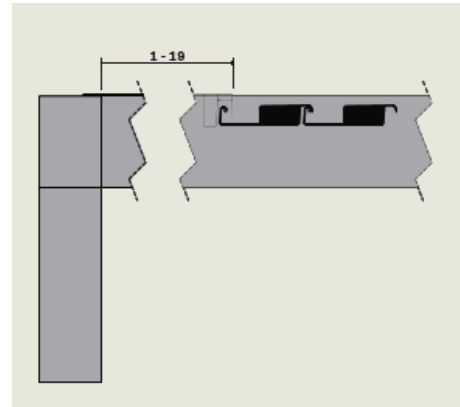
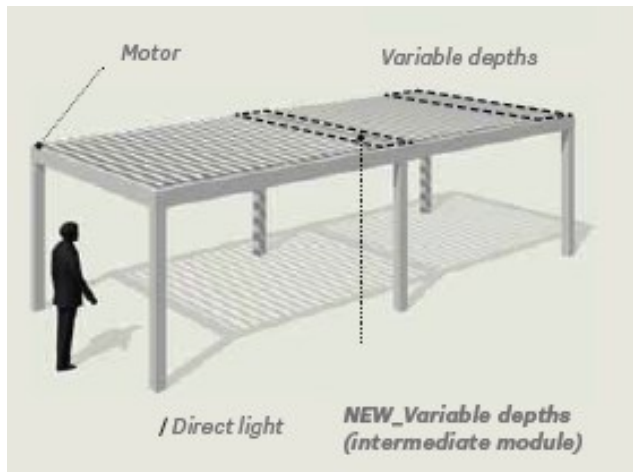
Cantilevered post maximum 100 cm or 39" from corner.



Vision unit mounted wall to wall. Available with Vision single module only. Standard size in this configuration is 5 meters x 5.9 meters projection (approx. 16' 5" w x 19' 4" proj.)

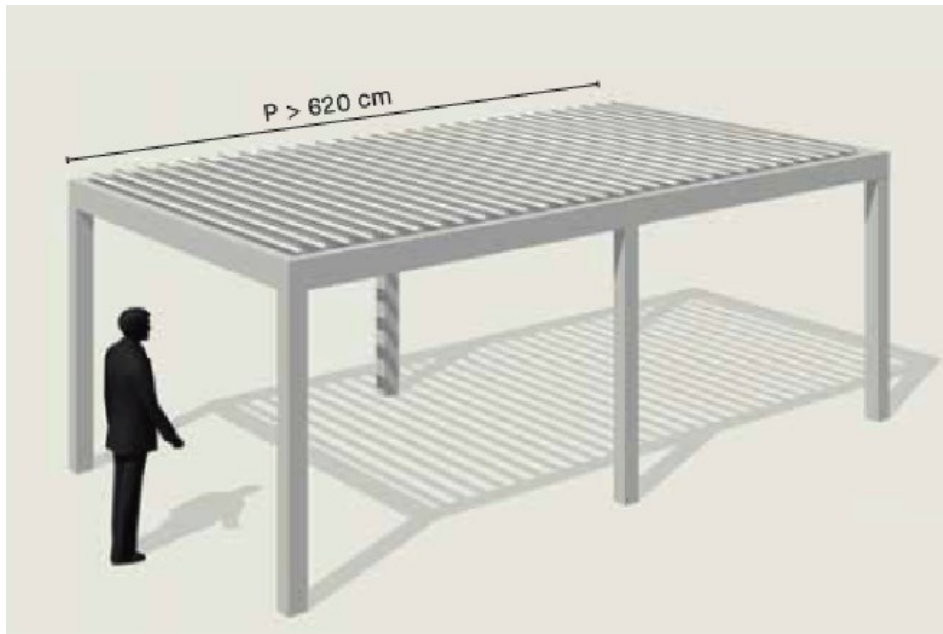
Filler piece can be added to make it more projection up to 600 cm (19' 8").

Please inquire with Sunair on exact size available.



Opera and Vision can be ordered with a custom projection and not in full louvered slat widths by adding a "filler" piece (Other than full width slat projection) in up to 1 cm increments (1—19 cm). This custom filler piece must be located on opposite side of the motor. This configuration is also not available on wall mounted units with O2L with slats configured with "Direct Light" towards the filler piece. The custom sized filler piece is extra cost and unit is priced at next largest size plus cost of filler piece.

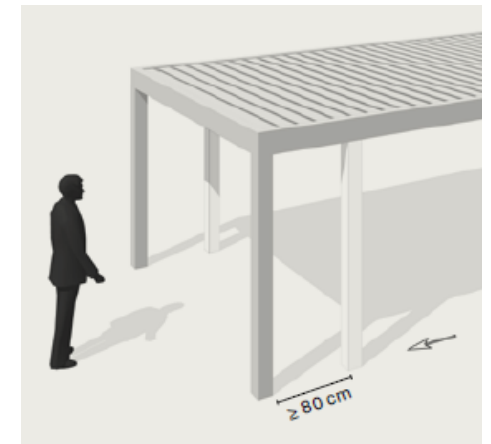
## Maximum Projection without intermediary posts



Opera and Vision can both be made with projections up to 700 cm or maximum 33 each blades. Projections greater than 620 cm or 29 each blades must have an additional upright post added on each side of the Pergola unit (See illustration top Right). If not indicated by customer, this upright will be centered under the beam on both the projection sides. This intermediary upright post can be placed off center by 100 cm maximum. This configuration requires at least three (3) drainage points per module.

**Note: For any Opera or Vision above 620 cm projection (P),**

**Six (6) posts are automatically included in the price of the unit.**



Minimum distance from intermediate post to corner post is 90 cm / 36"

## Possible Sizes Per Module:



Max 500 cm

\*Max Opera 700 cm  
\*Max Vision 690 cm  
Post needed on projection side above 620 cm.



Max 1000 cm

\*Max Opera 700 cm  
\*Max Vision 690 cm  
Post needed on projection side above 620 cm.

### OPERA:

Max module width 16' 5" ( 500 cm)  
Max module proj. \*22' 11" ( 700 cm)

### VISION:

Max module width 16' 5" ( 500 cm)  
Max module proj. \*22' 7 5/8" ( 690 cm)

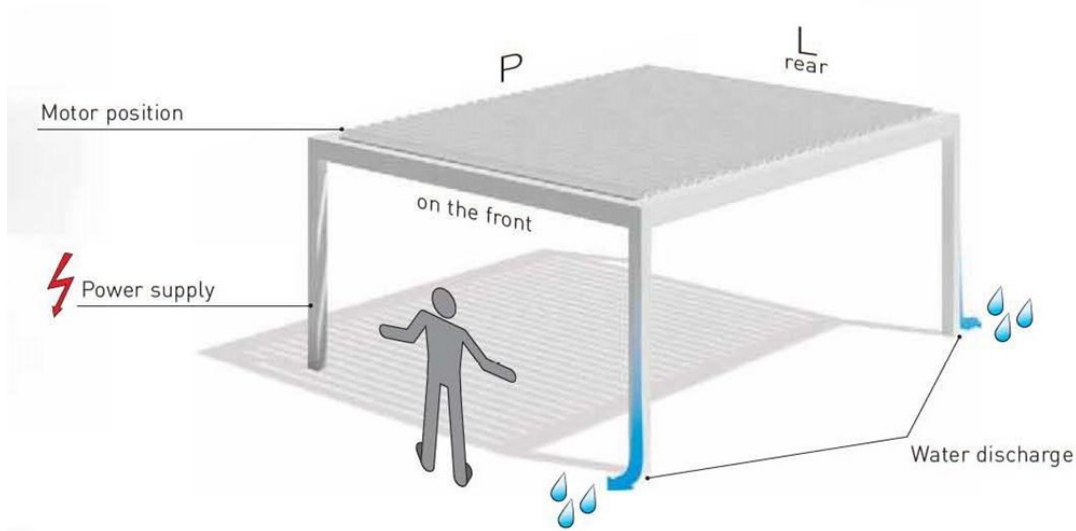
\*NOTE: If over 620 cm projection, a middle posts is needed on each projection side.

### NOTE:

Louvered metal slats are 20 cm wide, so finished projection will be in increments of 20 cm (7.87"). You may need to increase or decrease your desired projection accordingly. You can also add a "fixed " filler piece in the back for custom exact sized units (See filler piece option).

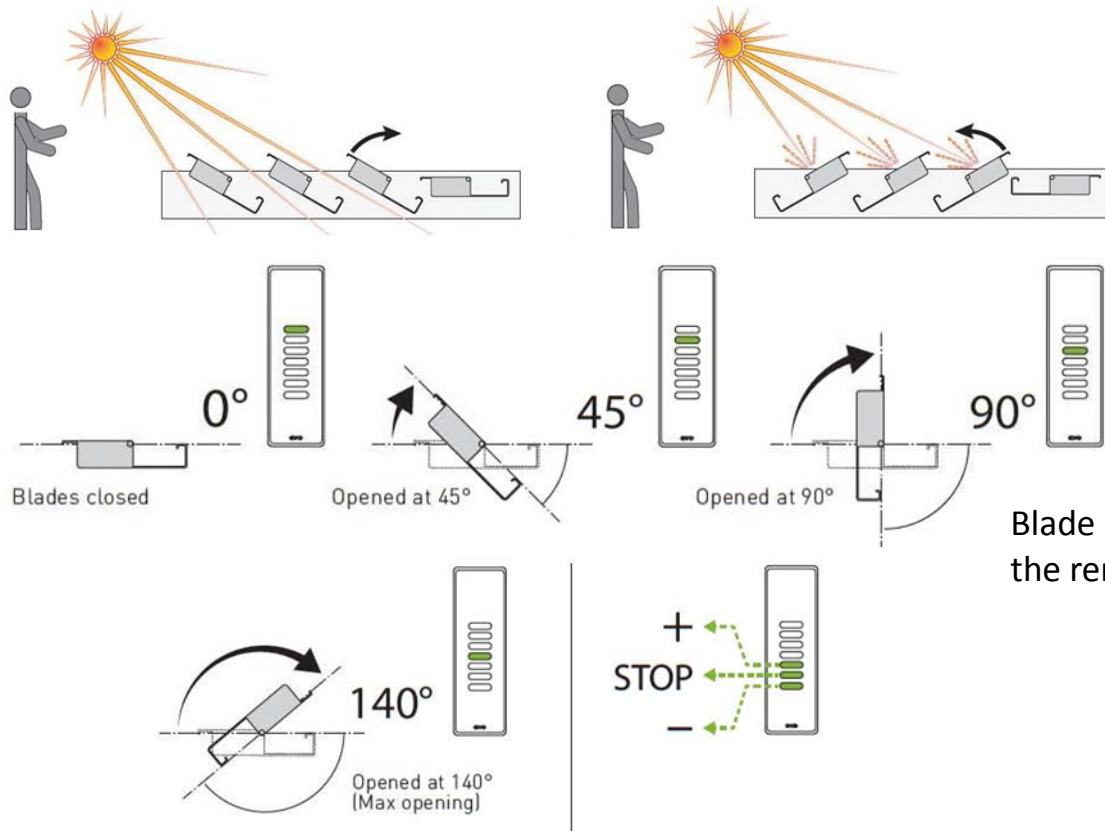
### OPERA & VISION:

When coupled on projection side, max module projection is 19' 8" ( 600 cm) for Opera module and (590 cm) for Vision model. Please inquire with Sunair® office on exact finishing dimensions.



Water discharge should always be two (2) per module or section. It is not recommended to discharge in the posts that carries the electrical wiring. For additional modules at least one more discharge point is necessary per module.

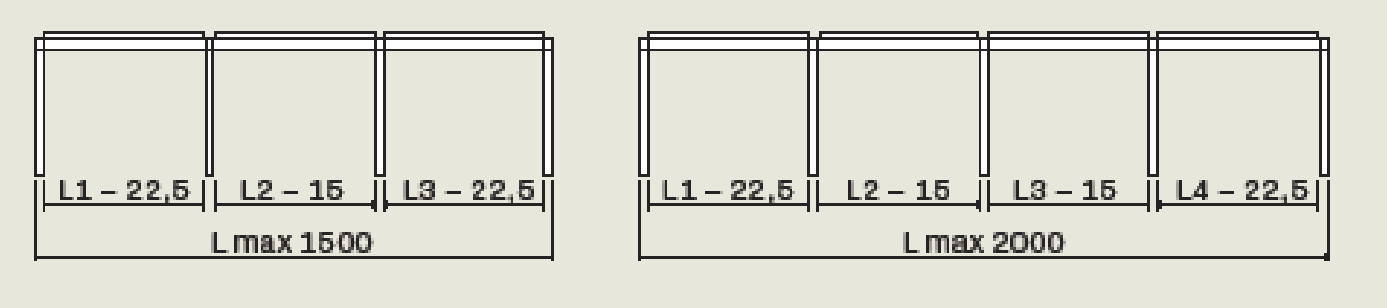
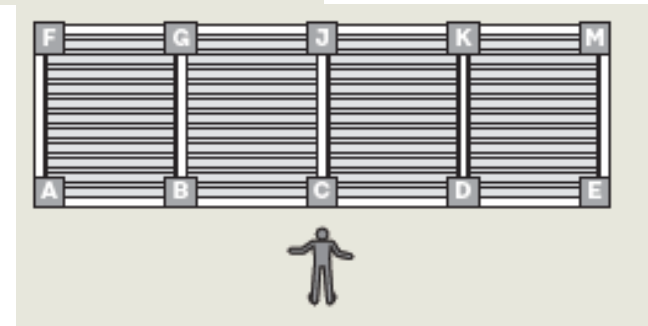
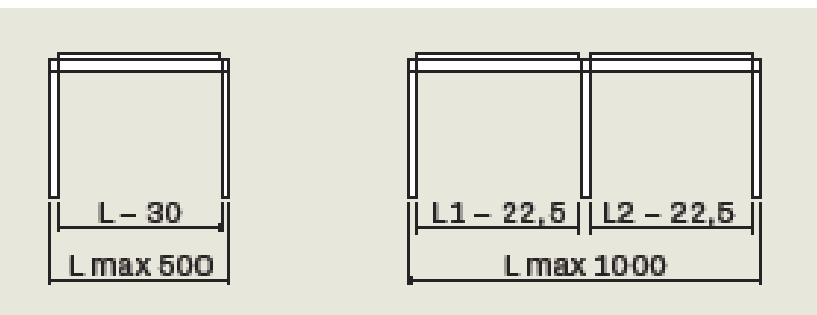
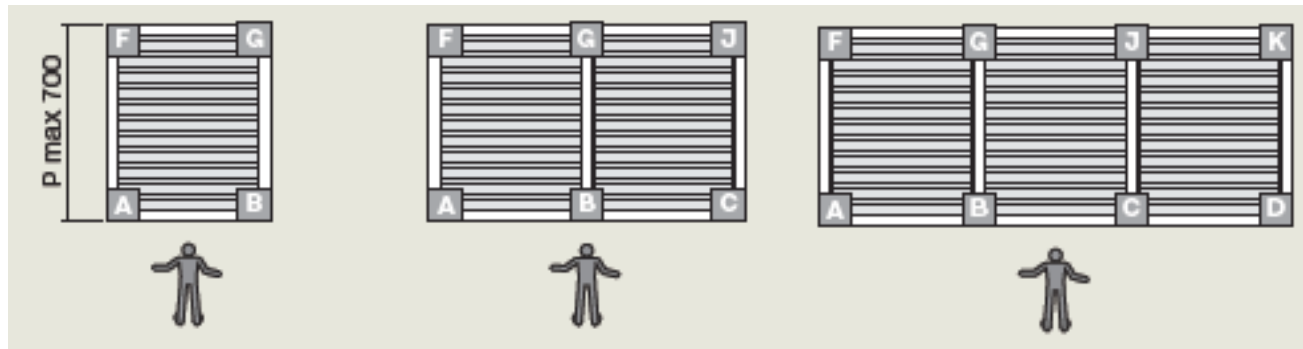
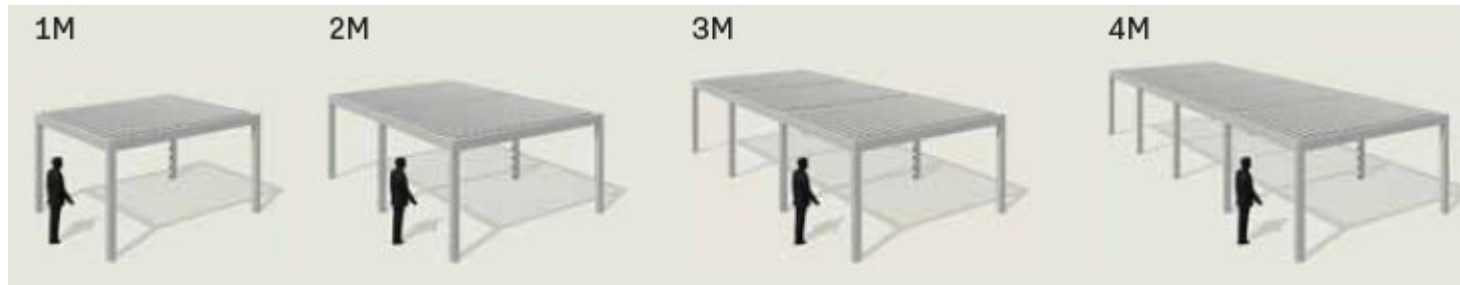
**NOTE:** Optional for OPERA & VISION is to have Structure and louvers in two different colors.



Blade rotation is pre-programmed on the remote as per pictures to Left.

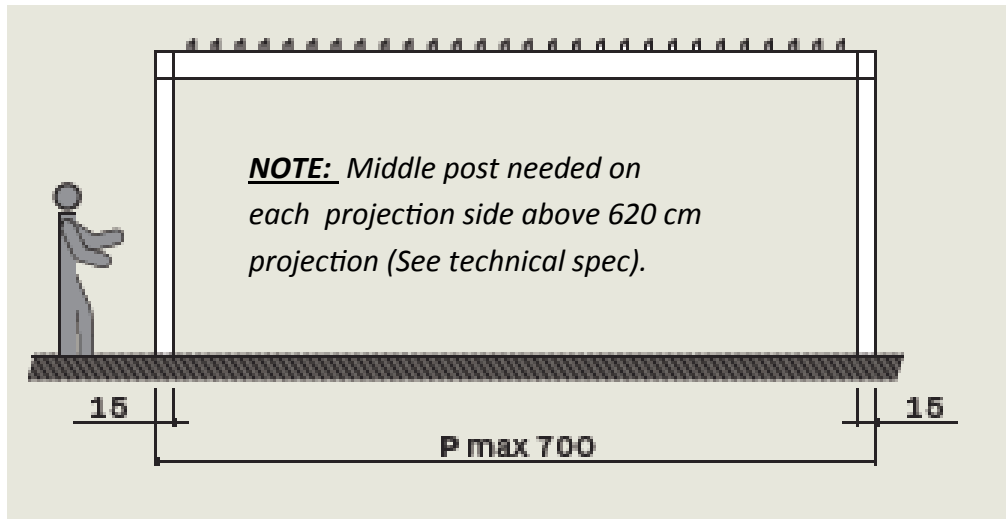


# OPERA 01L: Free standing Louvered system

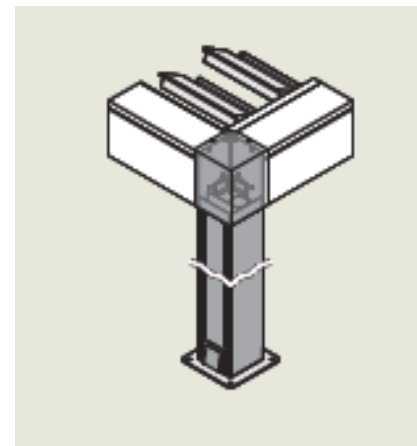
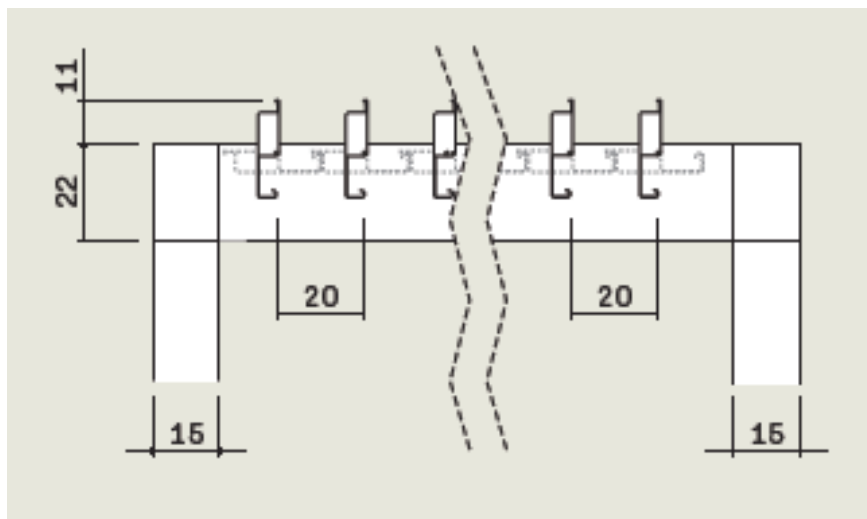
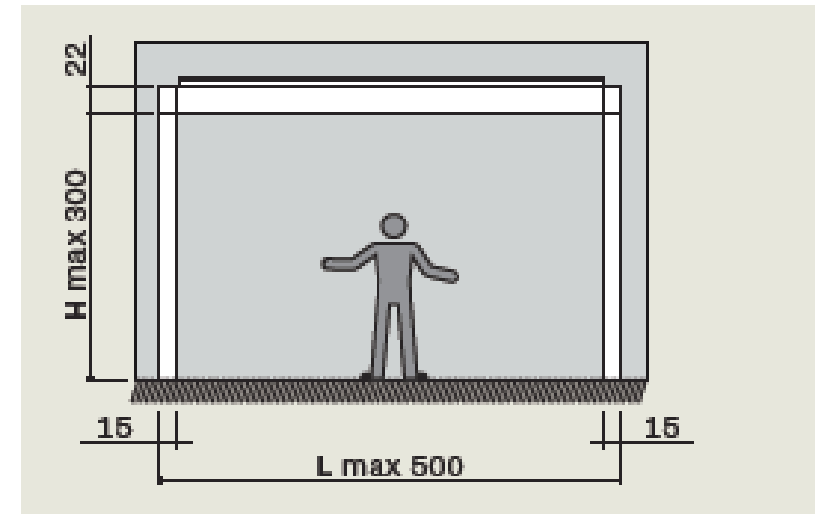


## 01L: Free standing con't.

SIDE VIEW

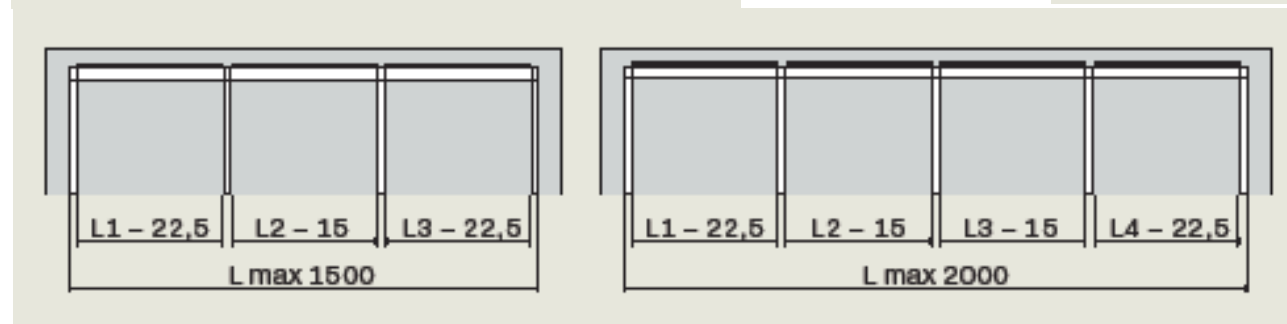
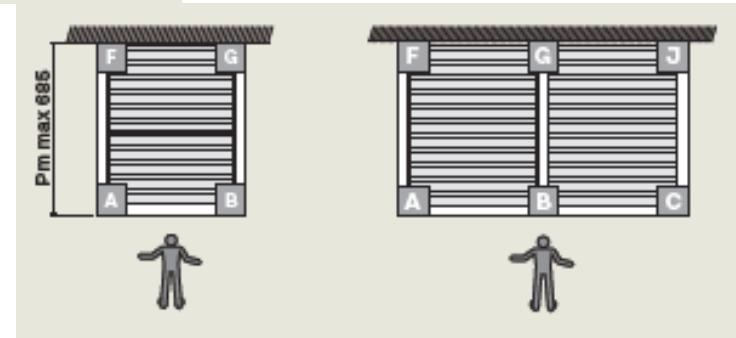
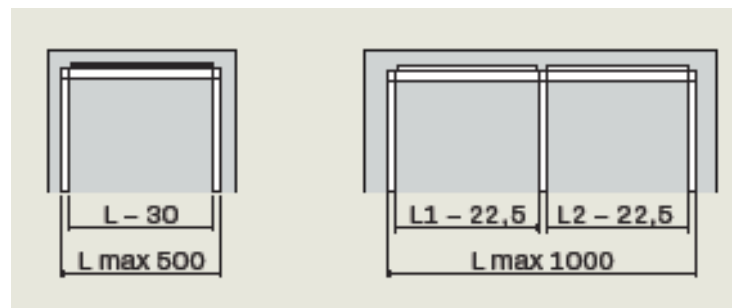
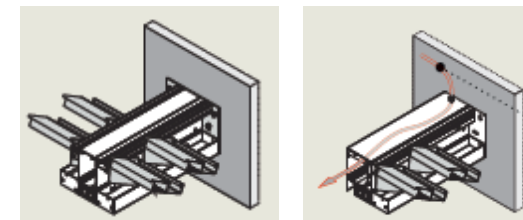
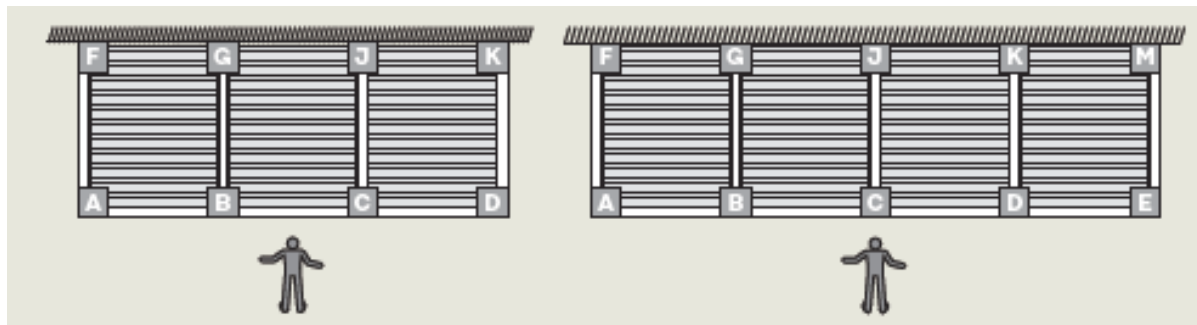
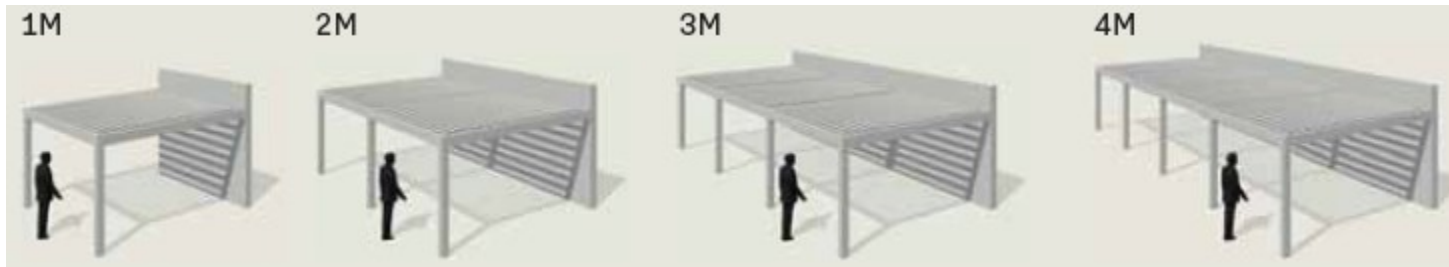


FRONT VIEW



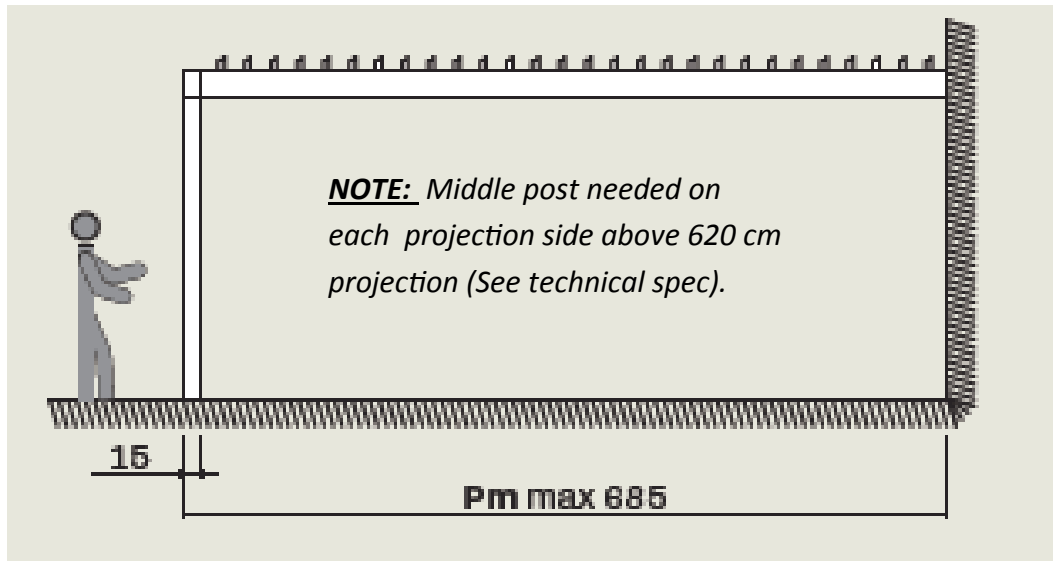
# OPERA 02L : Wall Mounted width side wall "L" Louvered system

Max Projection 22' 6" ( 685 cm)

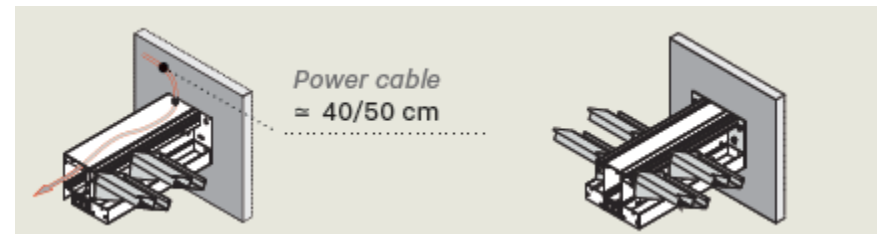
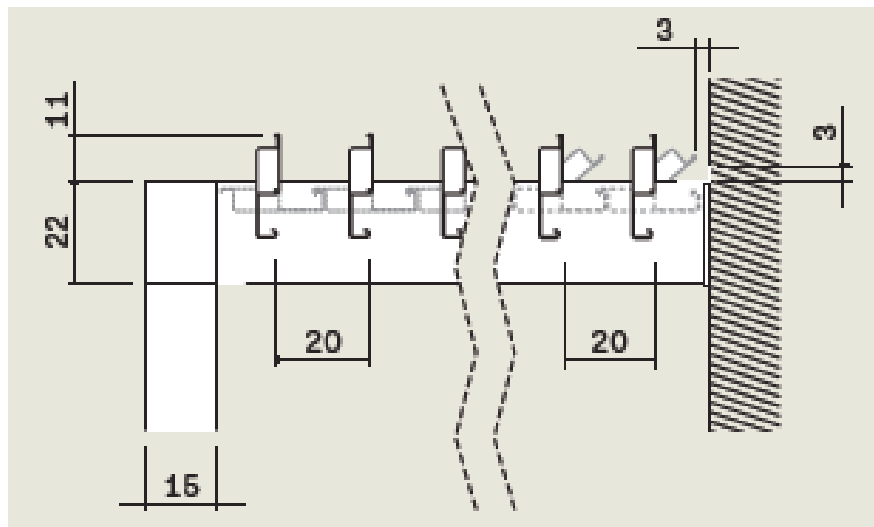
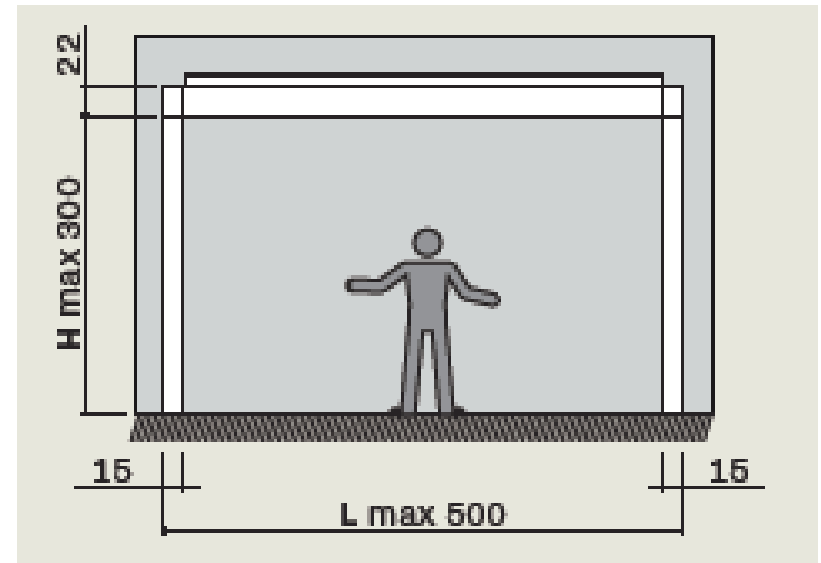


# OPERA 02L : Wall Mounted width side wall L con't.

SIDE VIEW



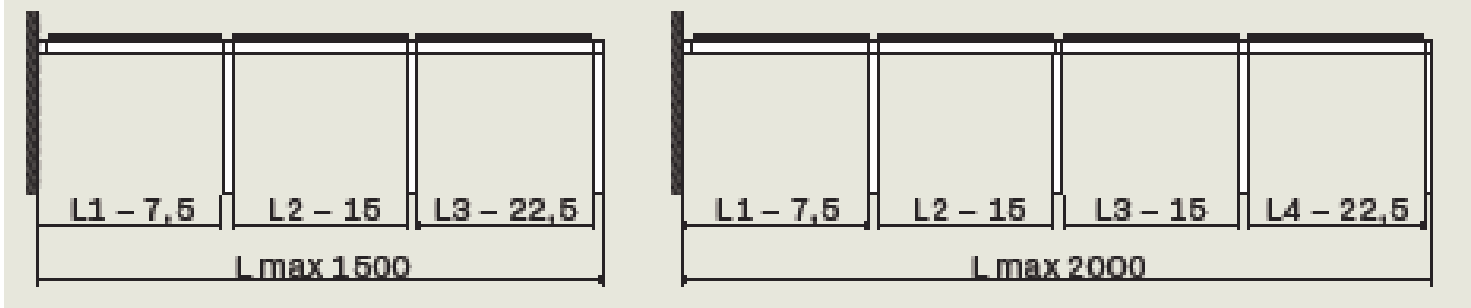
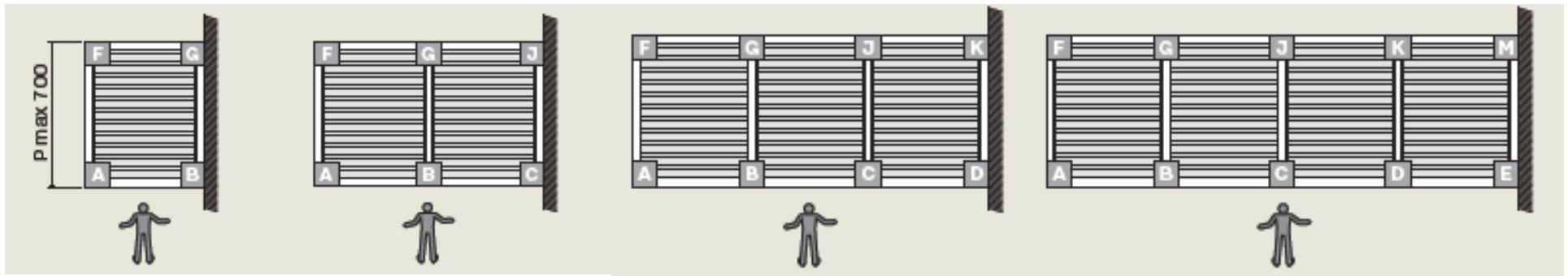
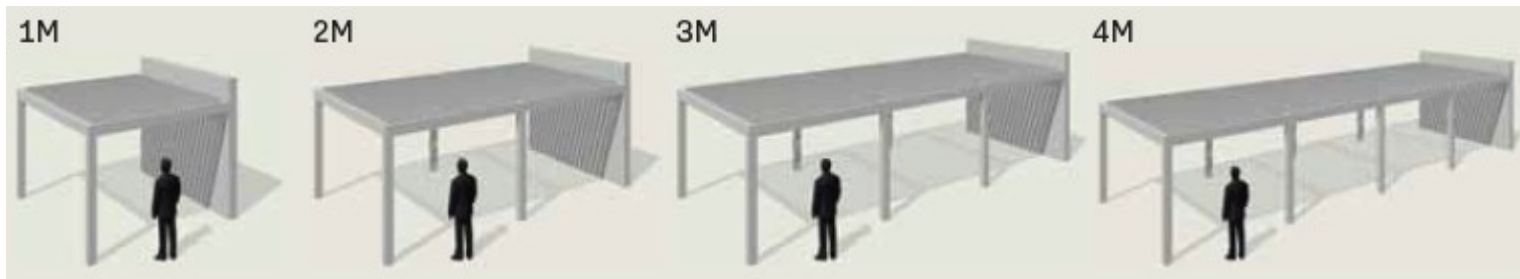
FRONT VIEW



Wall mounting

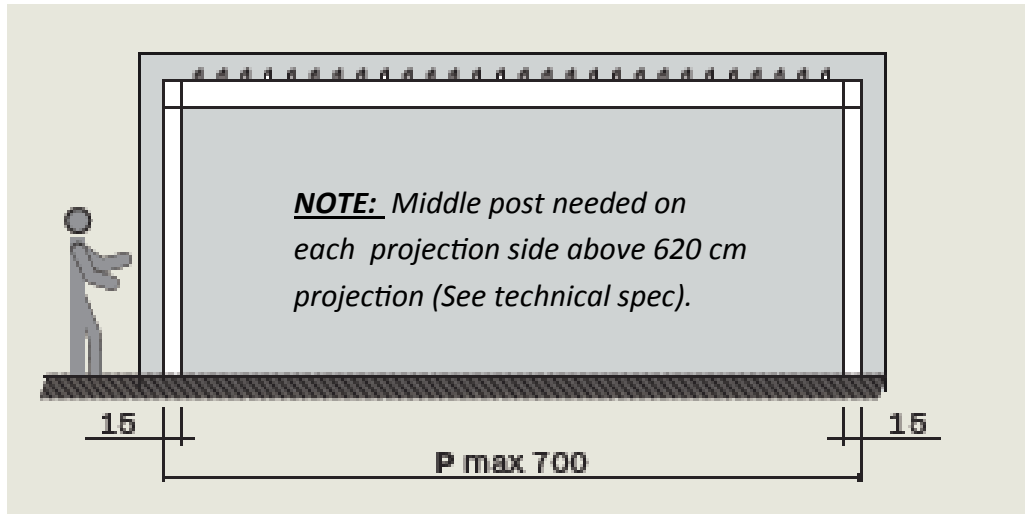
Intermediary Wall mount

# OPERA 03L : Wall Mounted projection side wall P

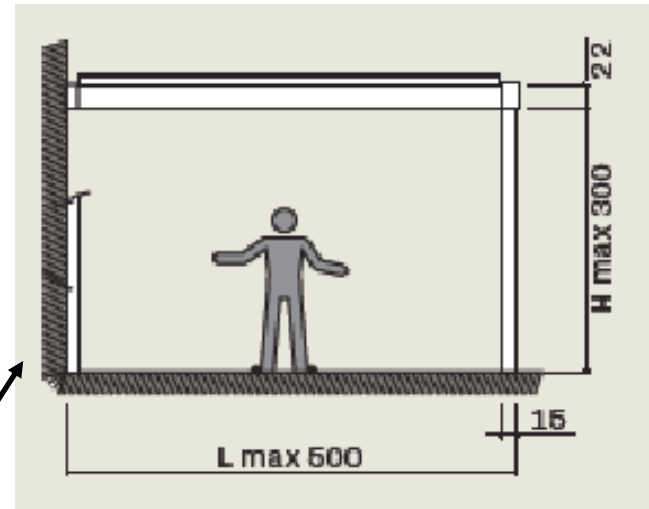


# OPERA 03L : Wall Mounted projection side wall P cont.

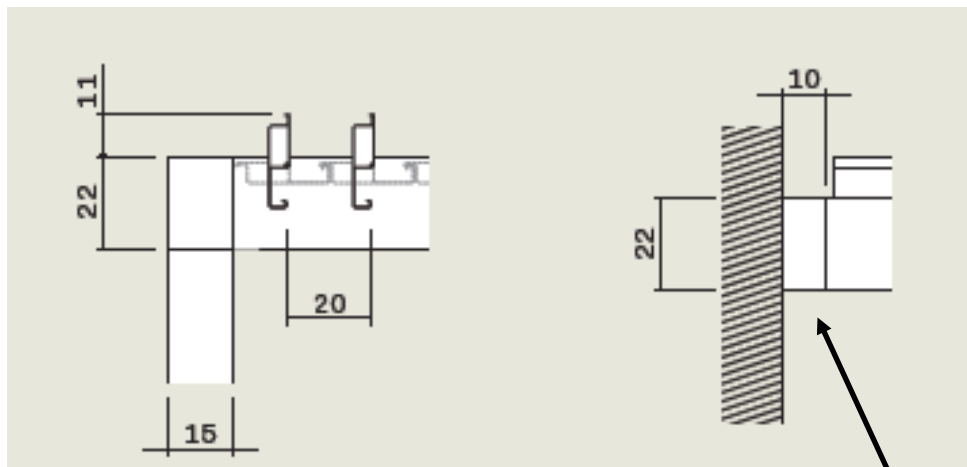
SIDE VIEW



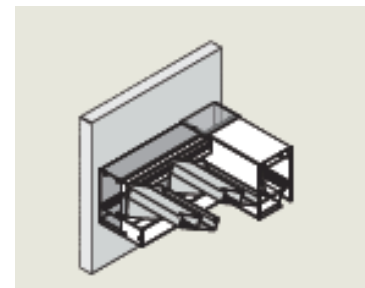
FRONT VIEW



Compensation profile added with RASO screens 10 cm x 15 cm



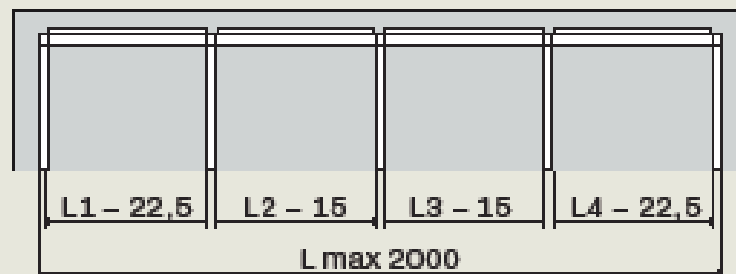
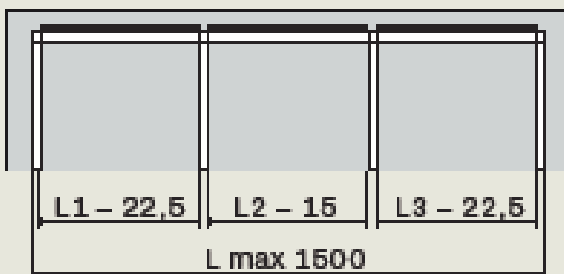
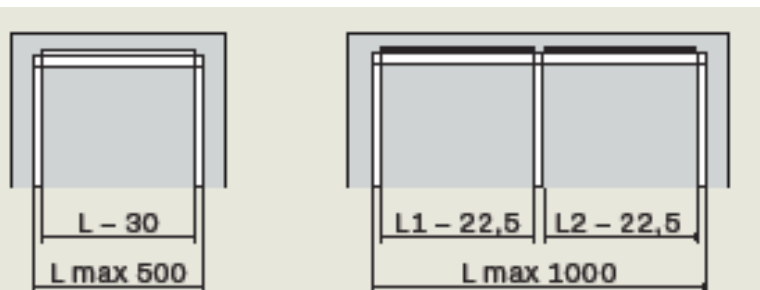
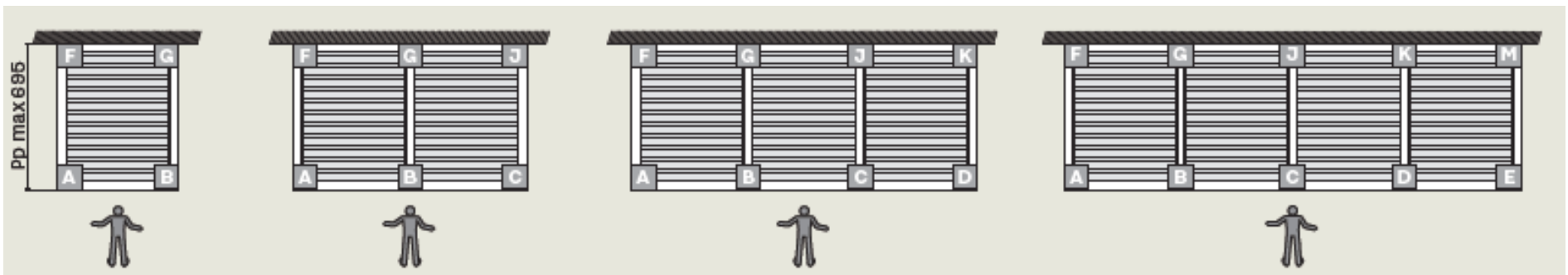
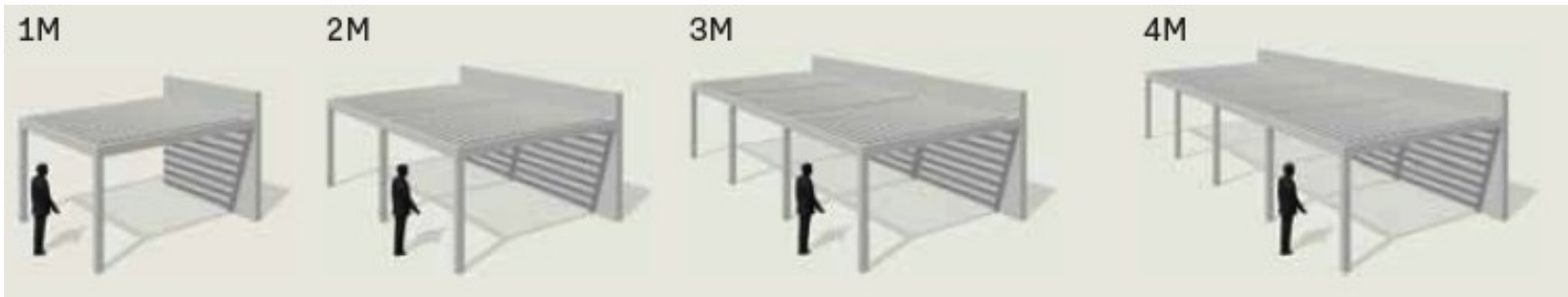
Filler Piece 10 cm



Wall mount

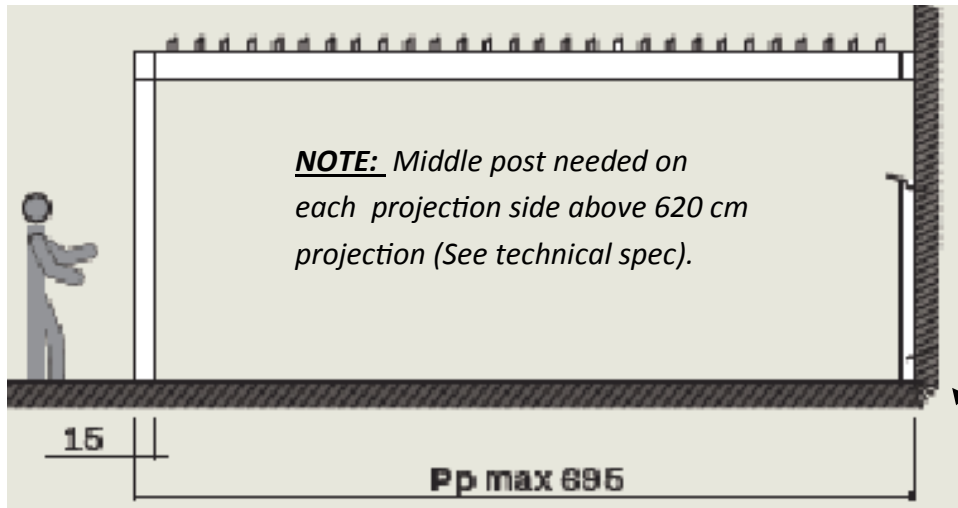
# OPERA 04L : Wall Mounted width side wall L with Profile

Max Projection 22' 6" ( 685 cm)

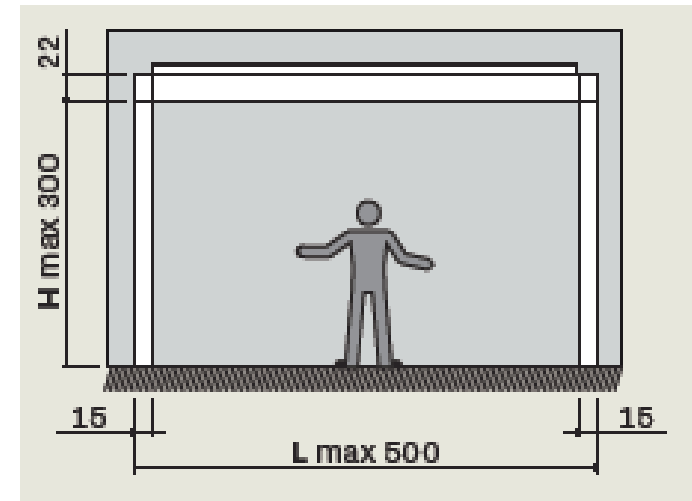


# OPERA 04L : Wall Mounted width side wall L with Profile con't.

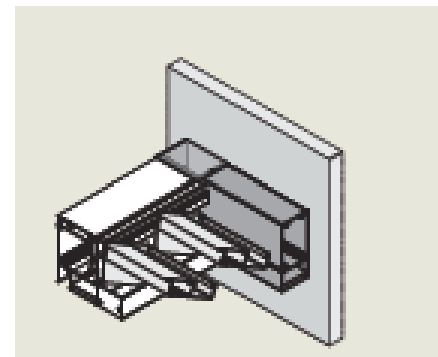
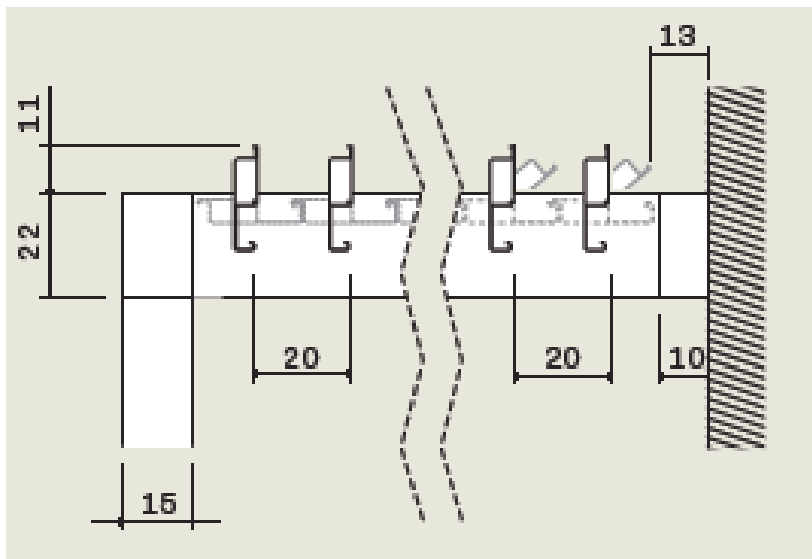
SIDE VIEW



FRONT VIEW



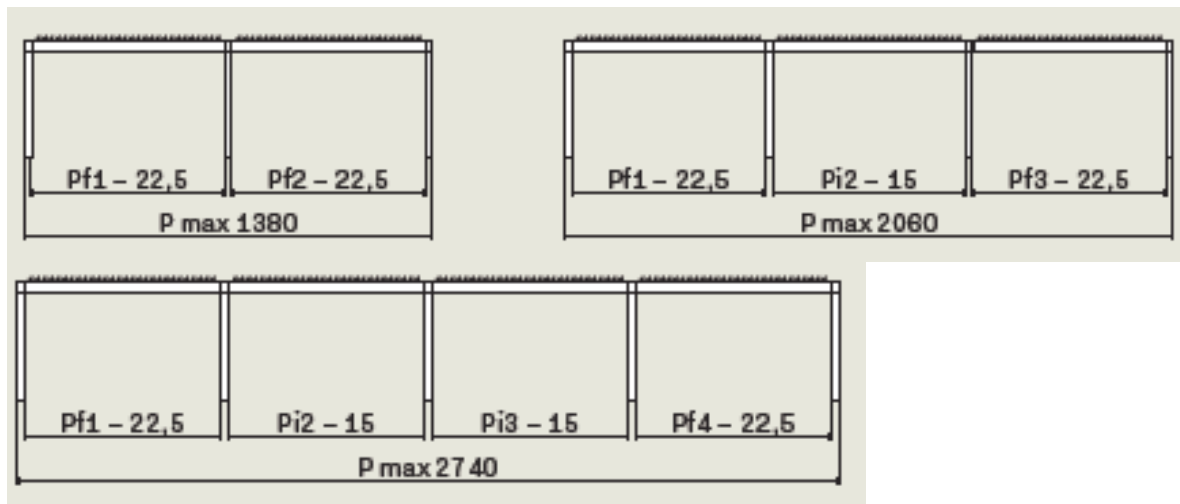
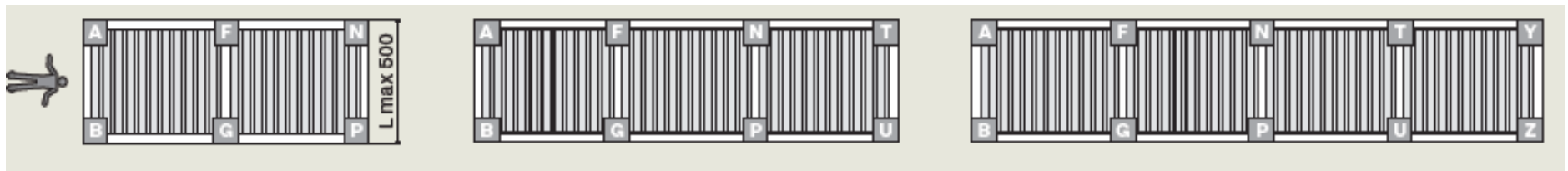
Compensation profile added with RASO screens 10 cm x 15 cm



Wall mount



## OPERA 01P : Free Standing and if multiple Coupled on width side.

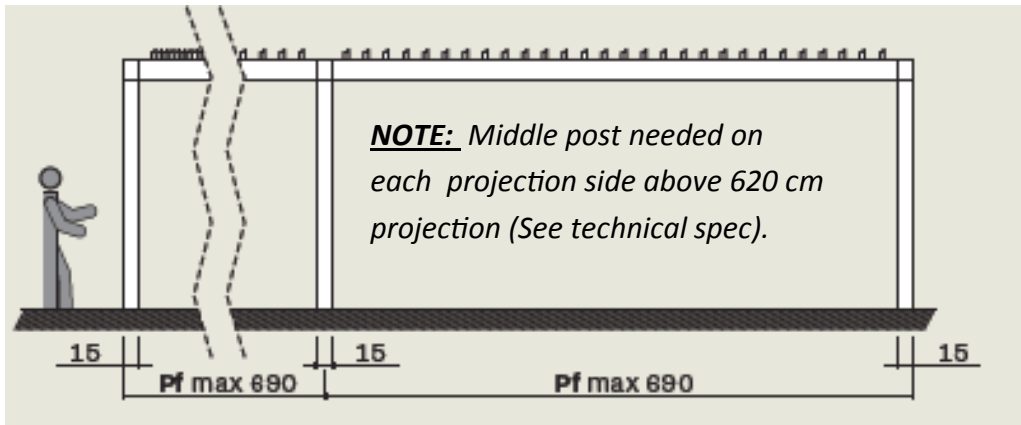


# OPERA 01P : Free Standing and if multiple Coupled on width side con't.

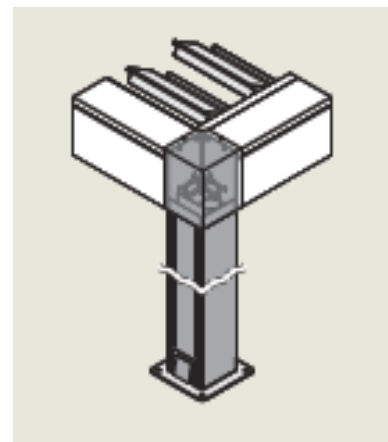
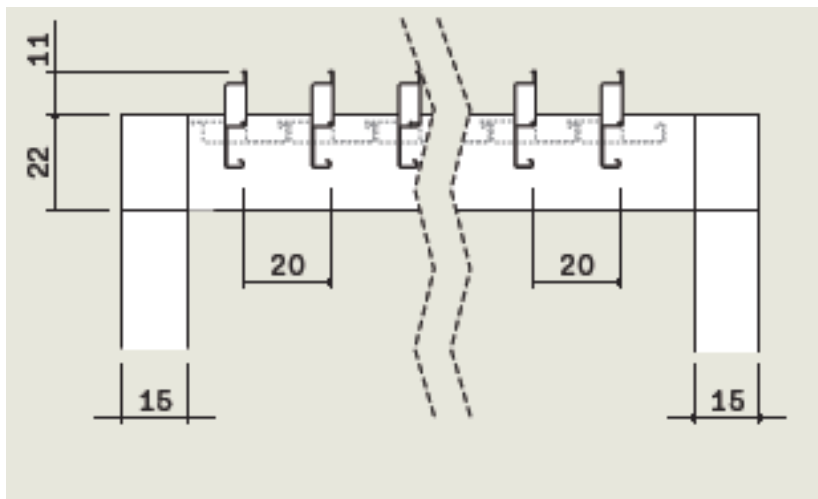
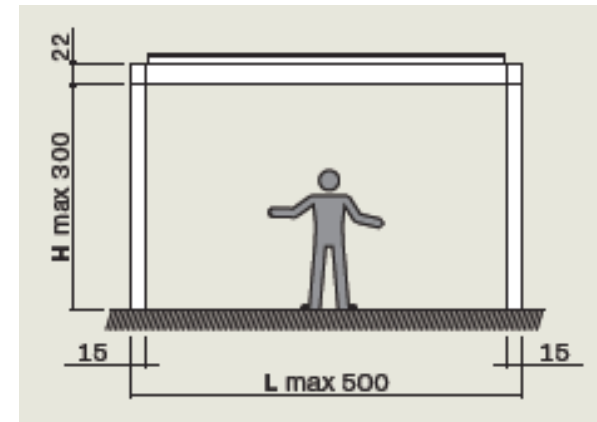
Reduction for Coupling



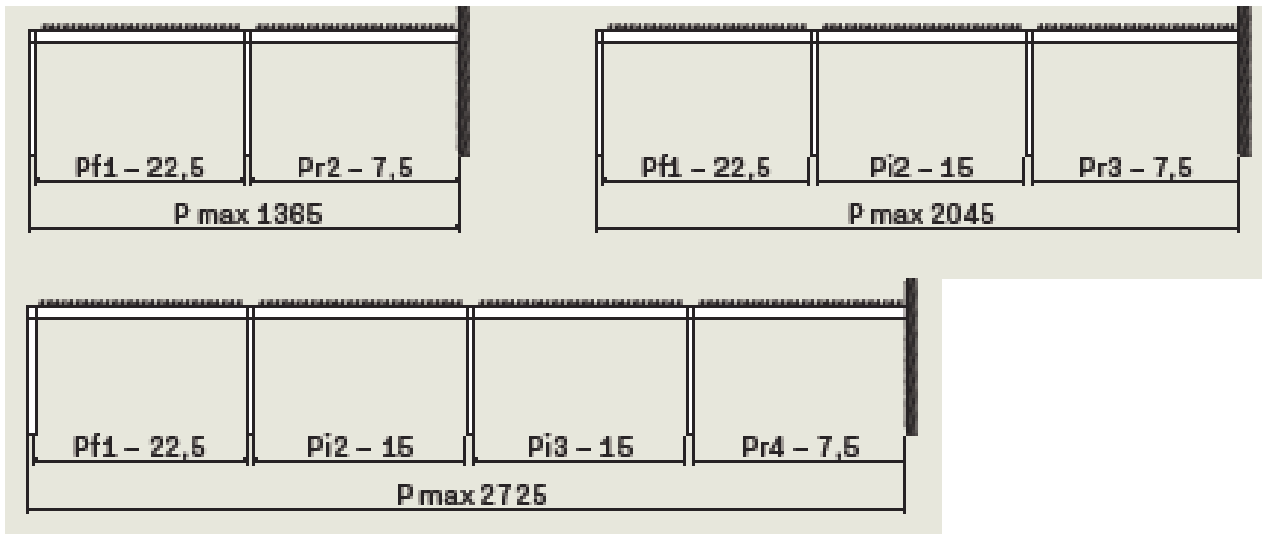
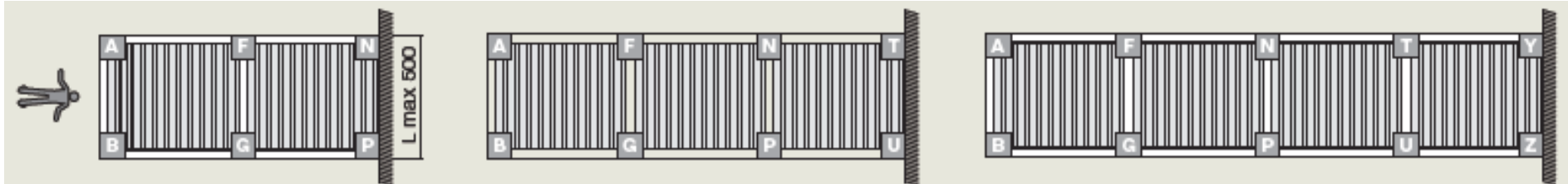
SIDE VIEW



FRONT VIEW

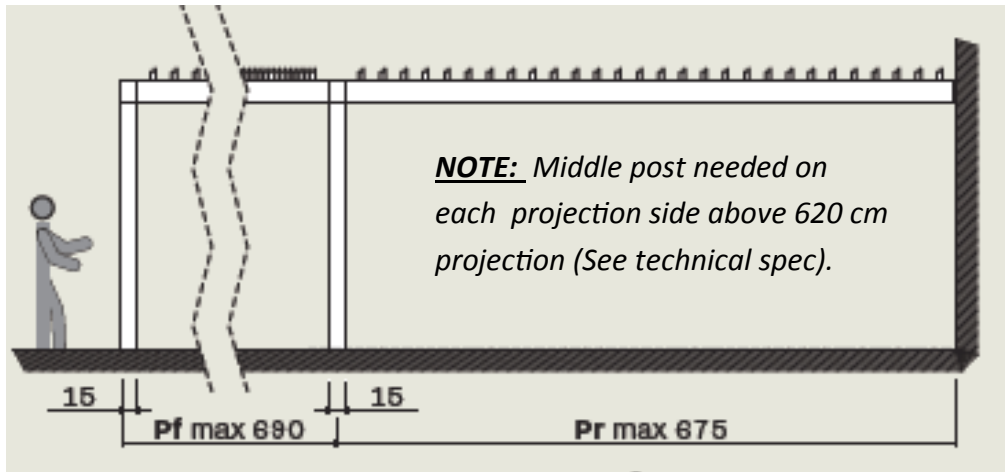


# OPERA 02P : Wall Mounted and if Coupled on width side.

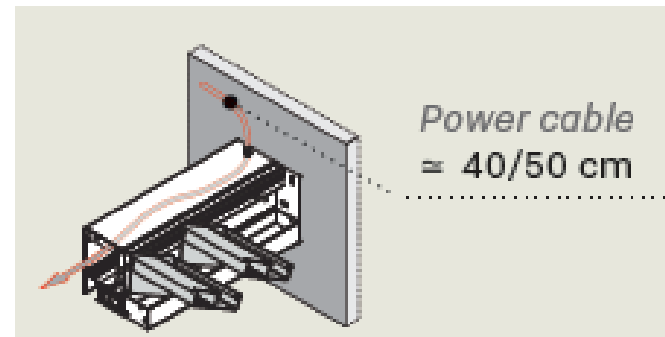
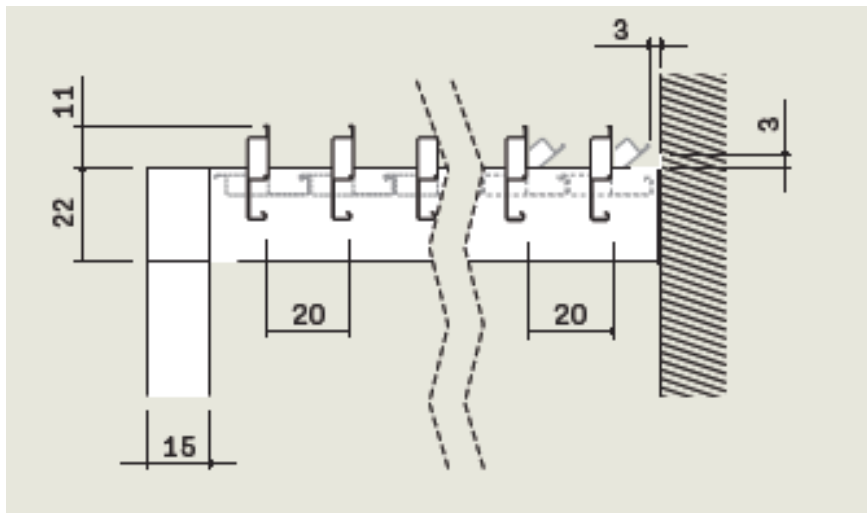
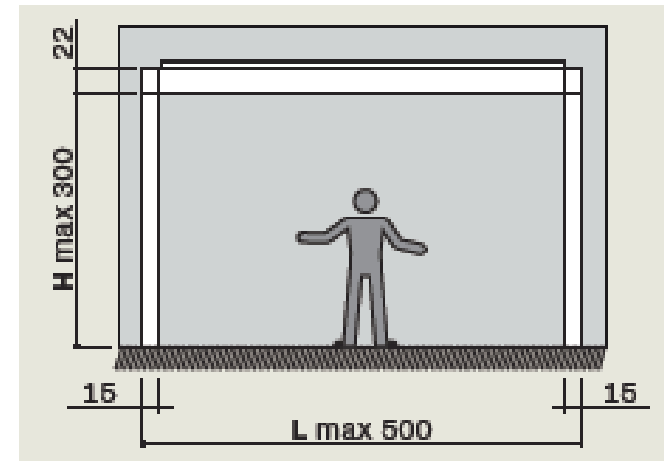


# OPERA 02P : Wall Mounted and if multiple Coupled on width side con't.

SIDE VIEW



FRONT VIEW

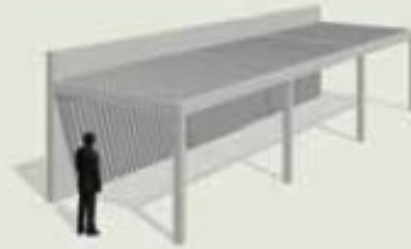


# OPERA 03P : Wall Mounted on Projection side and Coupled on width side.

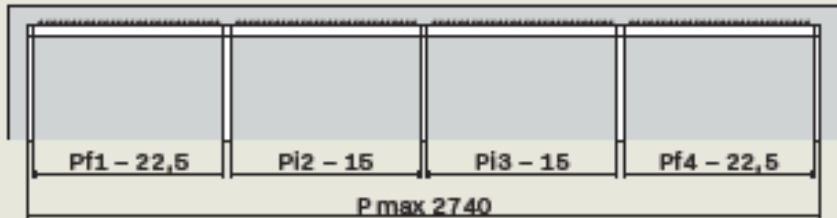
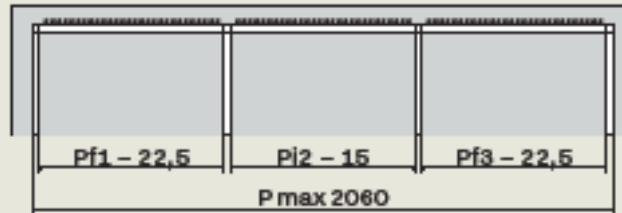
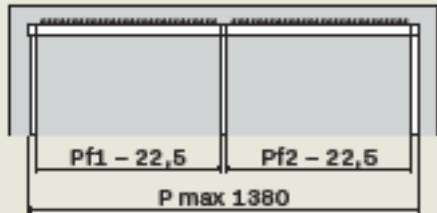
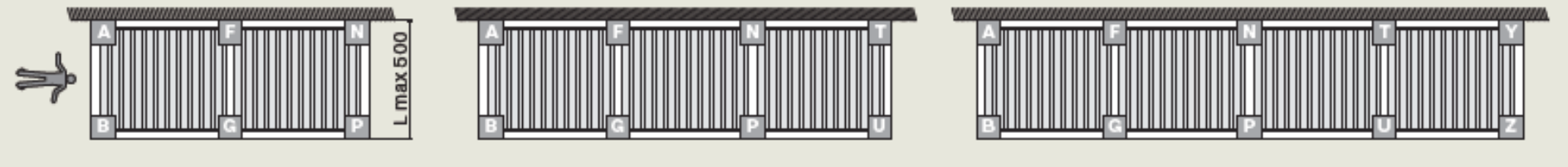
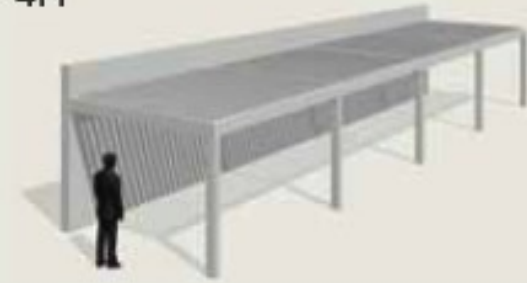
2M



3M

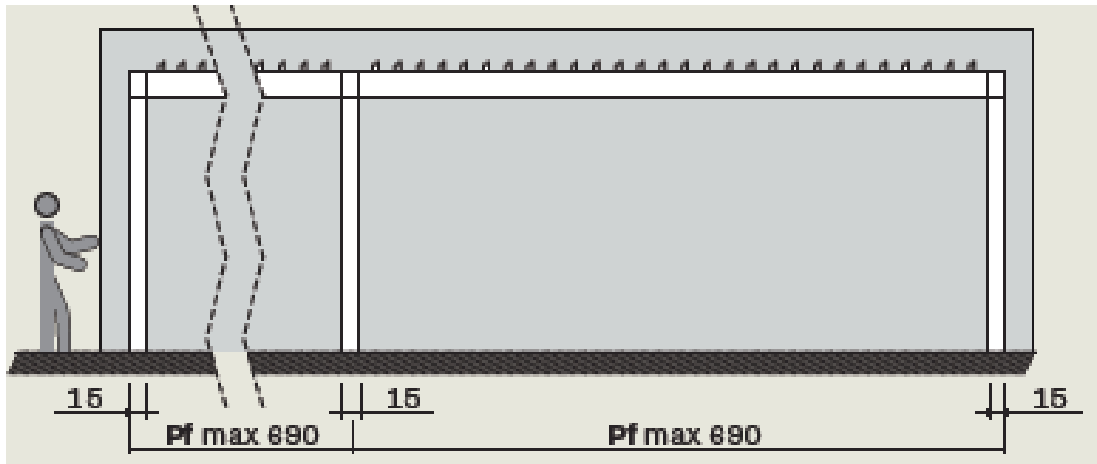


4M

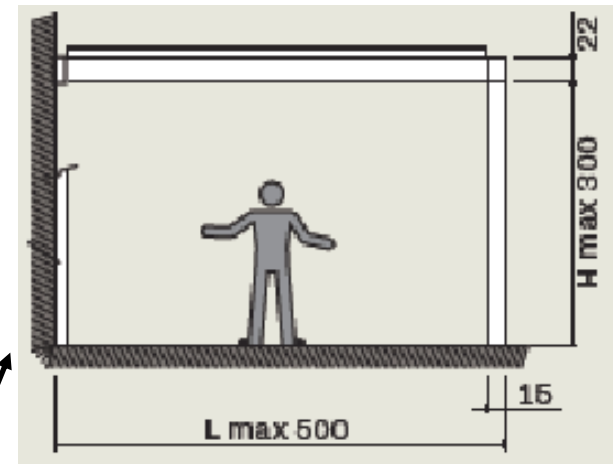


# OPERA 03P : Wall Mounted on Projection side cont.

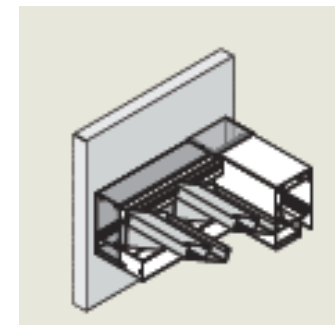
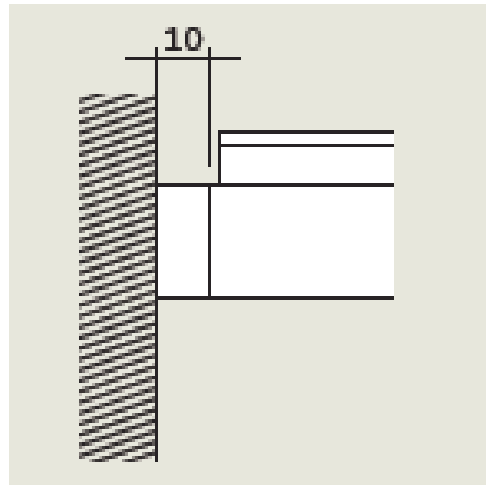
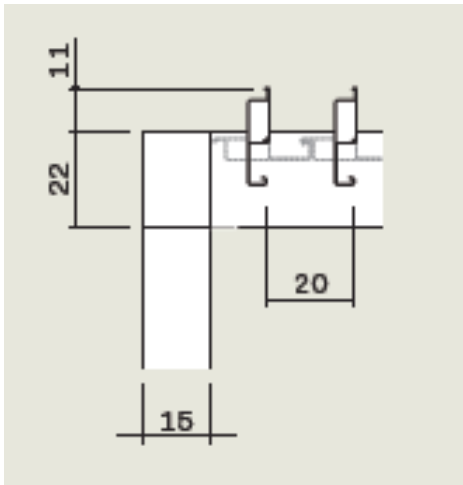
SIDE VIEW



FRONT VIEW



Compensation profile added with RASO screens 10 cm x 15 cm



Wall mount

# OPERA 04P : Wall Mounted on Width side "L" / Coupled on width side with Profile.

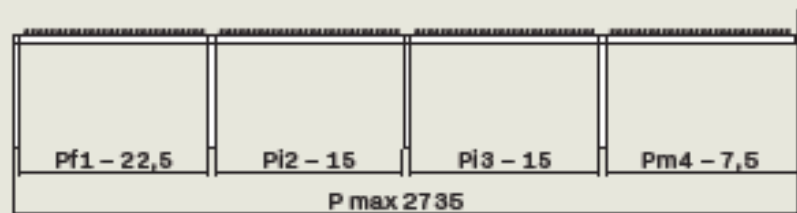
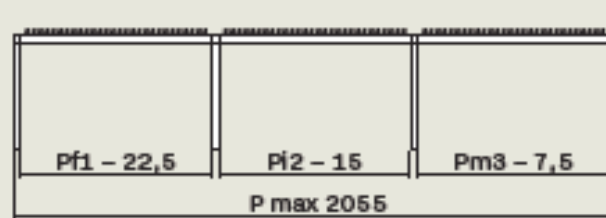
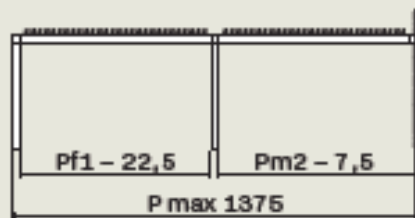
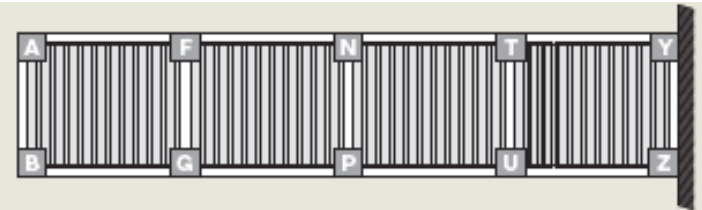
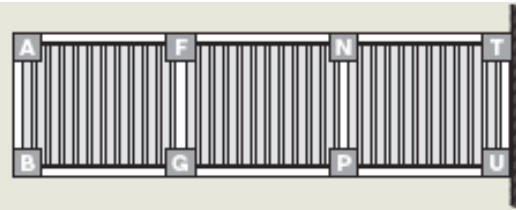
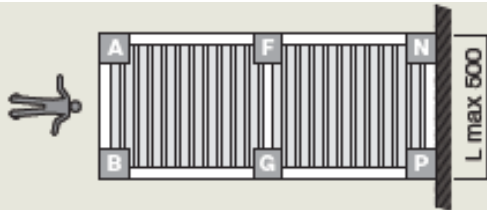
2M



3M

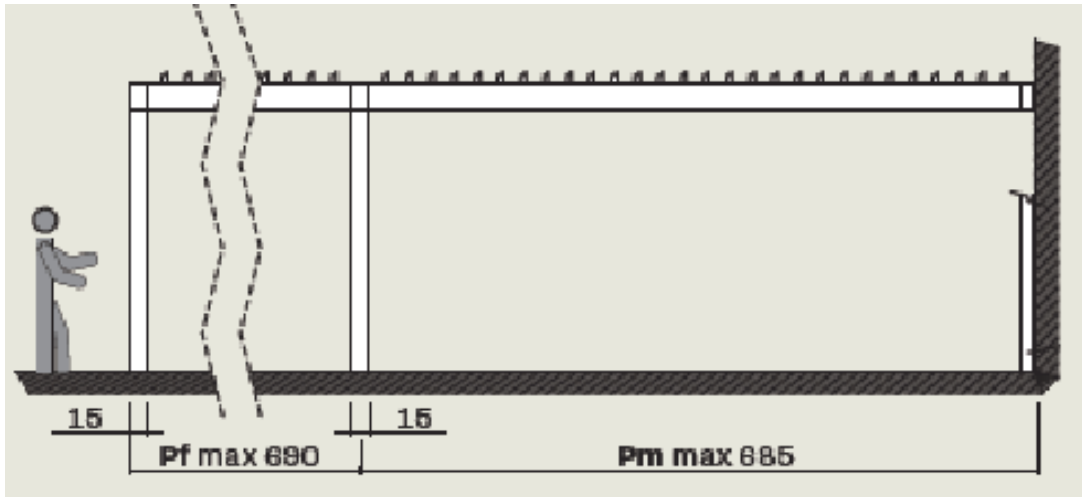


4M

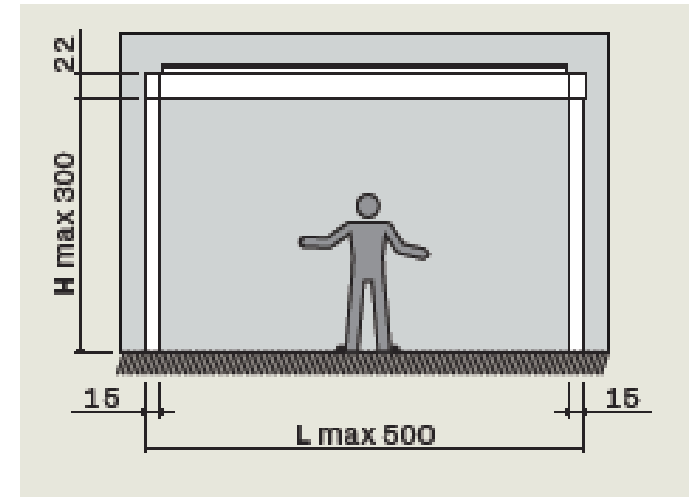


# OPERA 04P : Wall Mounted on Width side "L" con't.

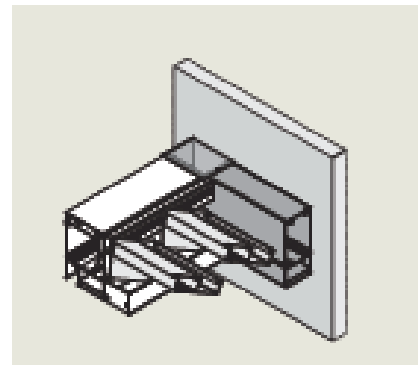
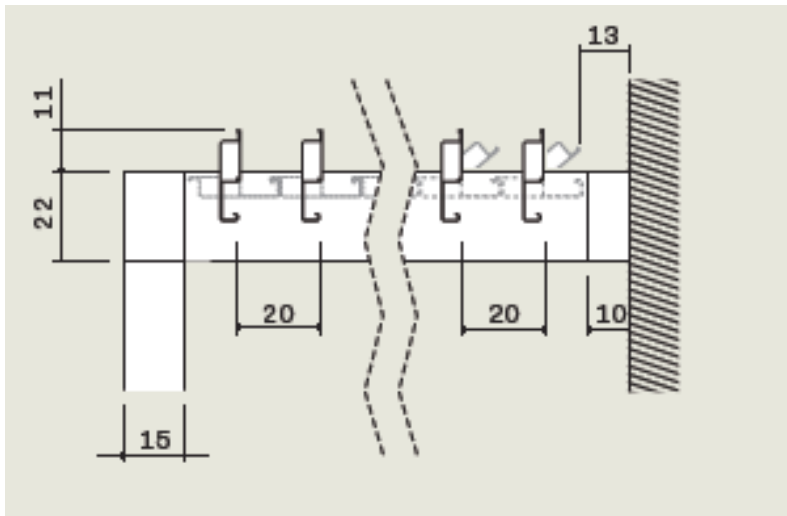
SIDE VIEW



FRONT VIEW



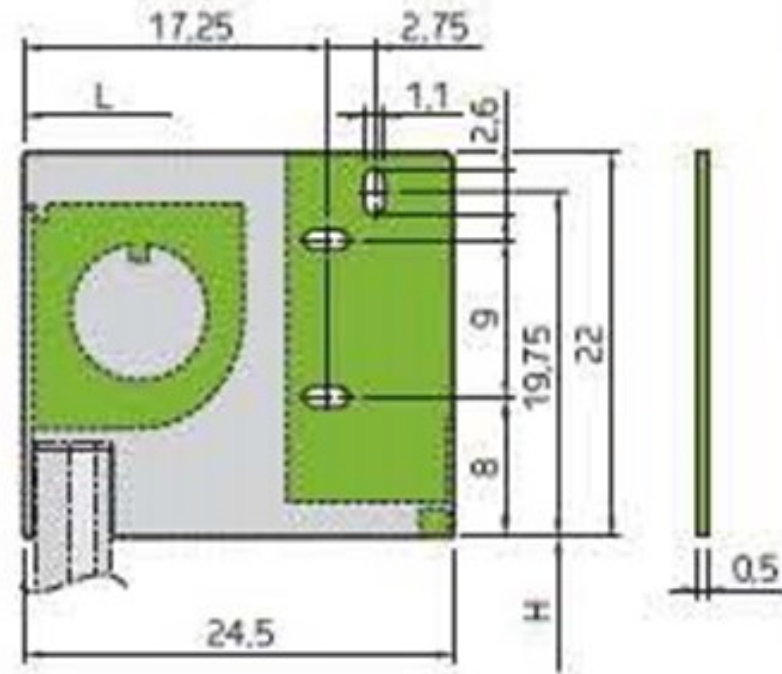
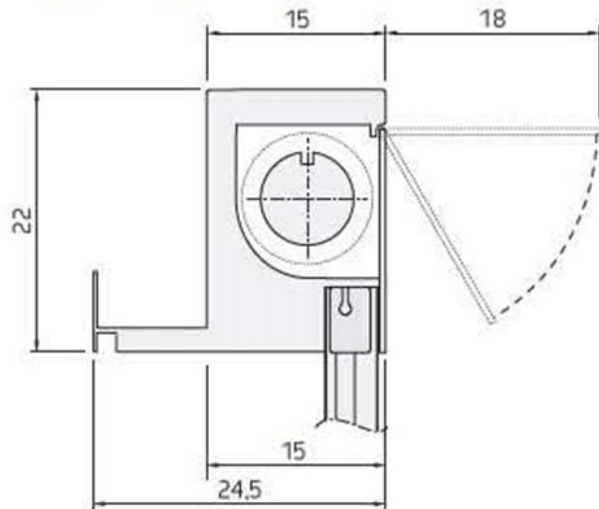
Compensation profile added with RASO screens 10 cm x 15 cm



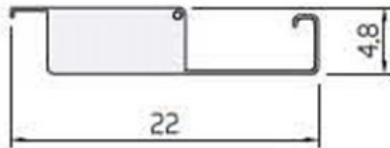


# OPERA technical details and dimensions.

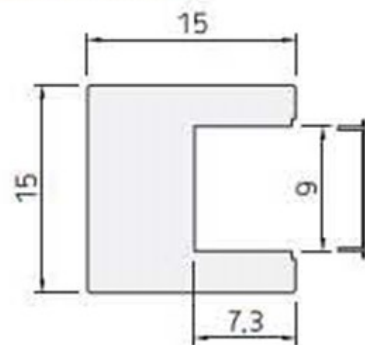
**Supporting profile with RASO box**



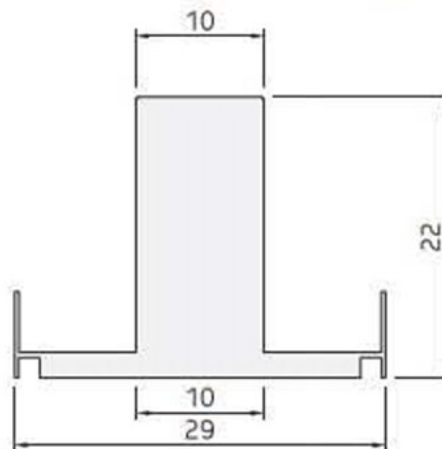
**Blade profile**



**Post profile**

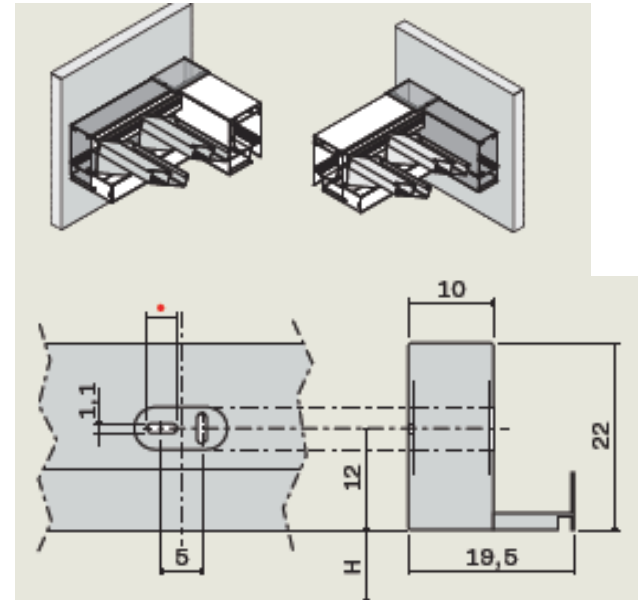
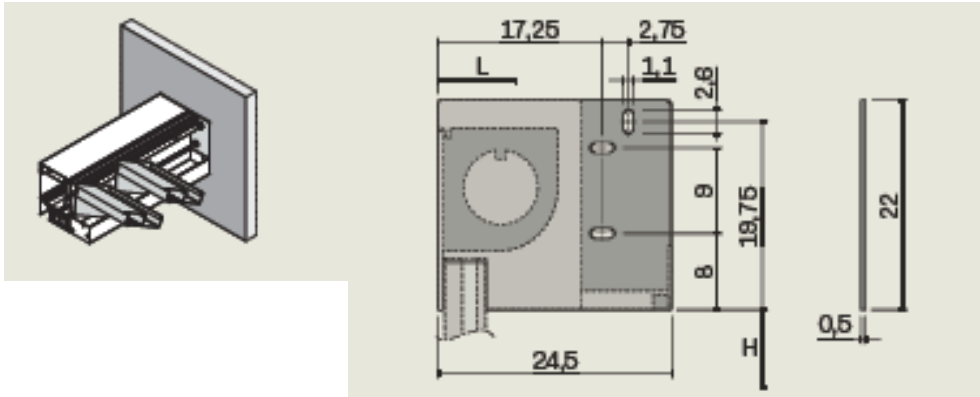


**Intermediate supporting profile**

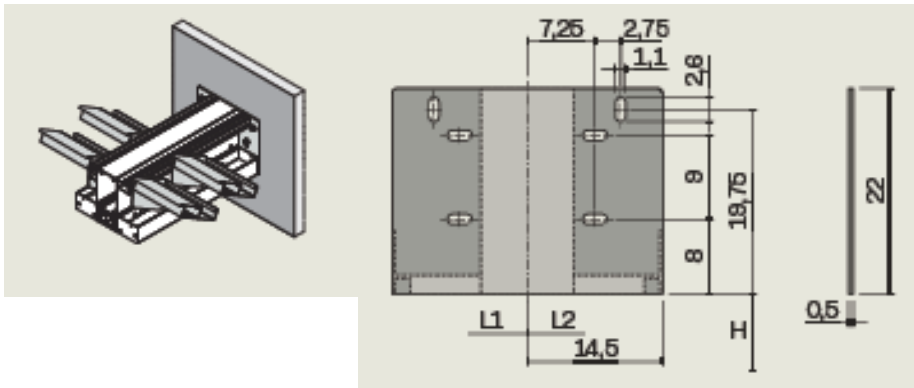


# OPERA technical details and dimensions con't.

Wall Mounting bracket mounting at sides

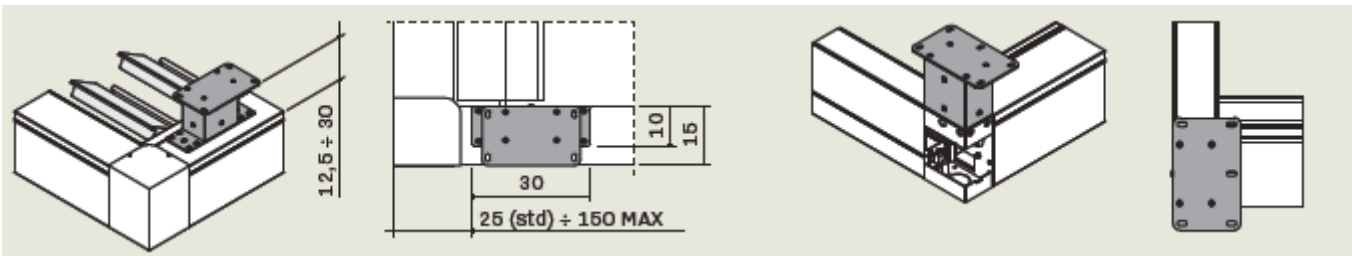


Wall Mounting brackets at Intermediary



Wall Mounting through the Profile

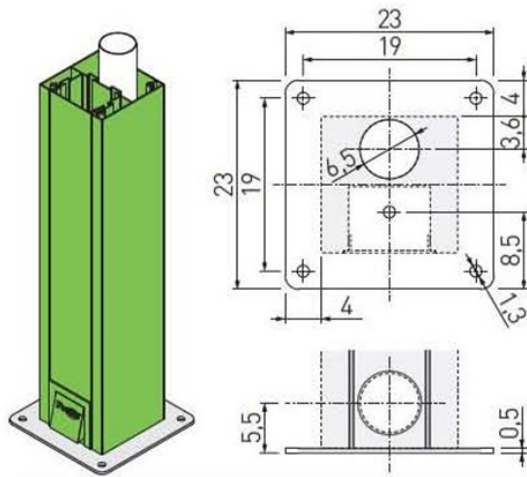
Optional Ceiling Mount Brackets ( System height from 12.5 cm to 30 cm)



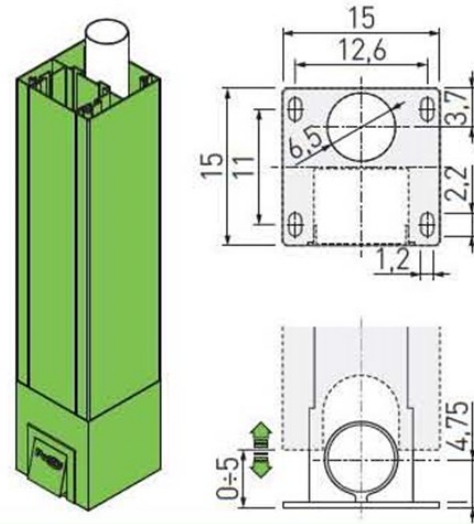
Type A uneven corner

Type B at corner

# OPERA technical details and dimensions con't.



Standard post feet. Standard height is 90" (230 cm). Above 230 cm is an upcharge. Maximum available Opera post height is 118" (300 cm).



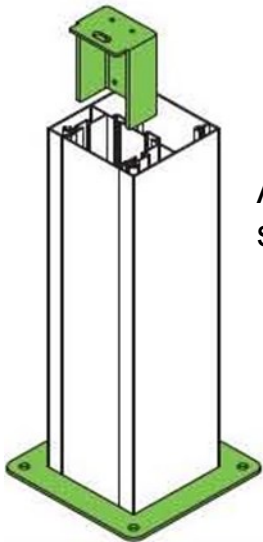
Optional telescoping feet up to 5 cm ( 2"). These are ideal on uneven surfaces and should be ordered if RASO screens are configured with the unit.

The "post" plate is as follows:

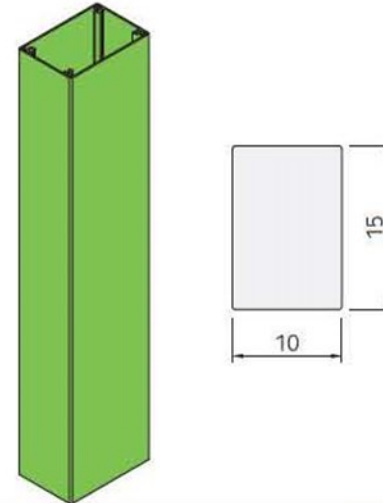
stainless steel 0.5 cm thick = 3/16" thick

Holes on center side to side along front 11 cm = 4.33 inches

Holes on center front to back apart 2.6 cm = 4.96 inches

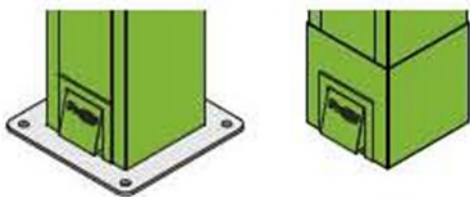
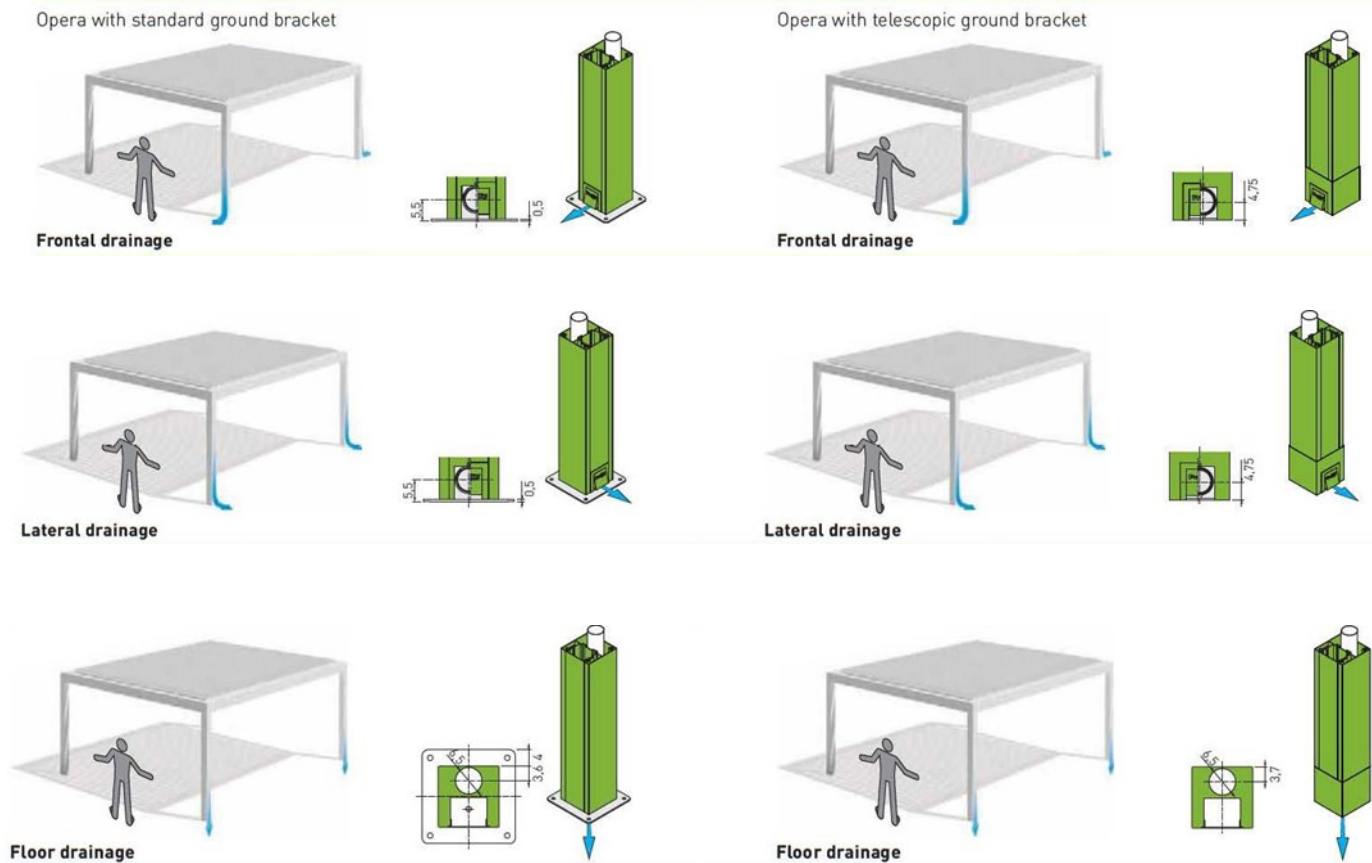


Additional posts with standard feet.



Optional wall posts if ordering Raso screens on 03 wall mounted configuration.

# OPERA water drainage details.



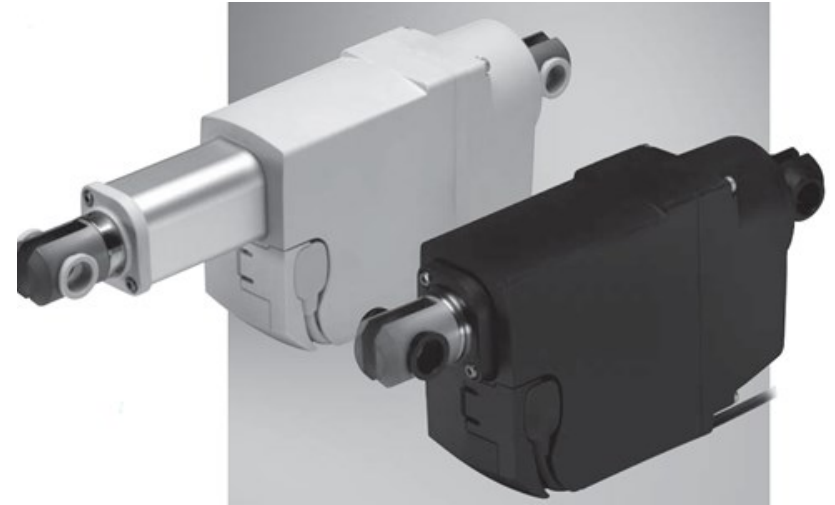
Scupper water discharge / flap is supplied in plastic can not be painted.  
**Note:** you just make bottom of the post even with the decking or patio surface pavers (Do not add pavers around perimeter as they will block the discharge out the sides).

**NOTE:** The OPERA louvers are sloped slightly to one side so drainage points are ideally located on the side the louvers are sloping towards in each module. Two drainage points per module is minimum ( More than two is better).

## OPERA & VISION MOTOR



## 24 VOLT BLADE MOTOR OPERA & VISION / Technical



The Linak Actuator Blade motors are 24 volt motors. They operate the Louvered metal blades only for the top roof to rotate the blades back and forth from 0 - 140°. A 150 watt transformer is included with the Opera or Vision unit and is pre-wired inside the Post of the Opera unit. The transformer is pre-wired in the top gutter system of the Vision model. The input for the 150 watt transformers is 230v or 110v and with either 50Hz or 60 Hz. Each "Module" will have its own 24 volt motor. If multiple Opera or Vision sections are joined together, each unit or module will have its own 24 volt Linak motor. The Louvered Pergola remote NOON remote transmitter is available in multi-channel to accommodate multiple Linak motors as well as also controlling the LED strips and lighting. Any optional "Raso" roll down screens configured with your Opera unit will use a 110 volt Somfy Altus motor and will be wired separately from the Linak 24 volt motor. The Somfy motor does not utilize a transformer and has its own Telis Somfy remote. The Linak "blade" motors will have its own remote controller and any roll down screens will have its own remote controller. Up to two (2) Linak Blade motors can be wired on each 150 watt transformer. Four (4) Louvered modules will be wired with two – four transformers.



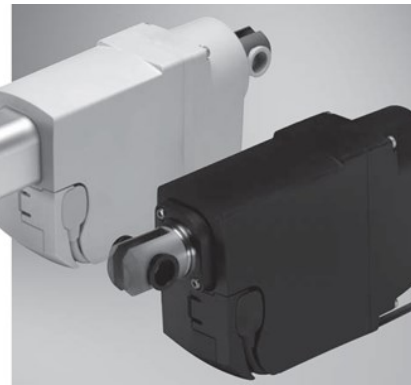
HLG-150H Transformer 150 watts

UL. UL8750 (type HL)

DC voltage 24 Volts

Rated Current 6.5 amps

Rated Power 151.2W



Actuator Motor LA23

UL. UL60601-1

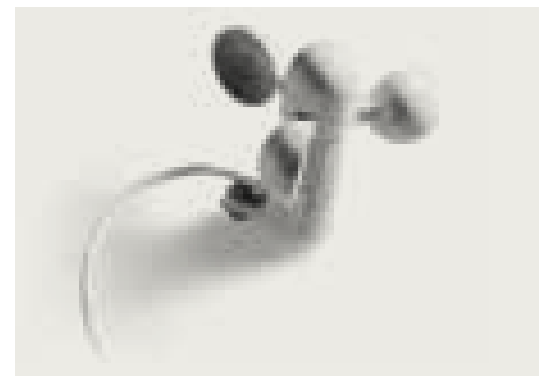
DC voltage 24 Volts



Optional Rain Sensor



Optional Wind Sensor



Old remote



**Available in Future:**

**NOON ATM00027**

**Remote Transmitter**

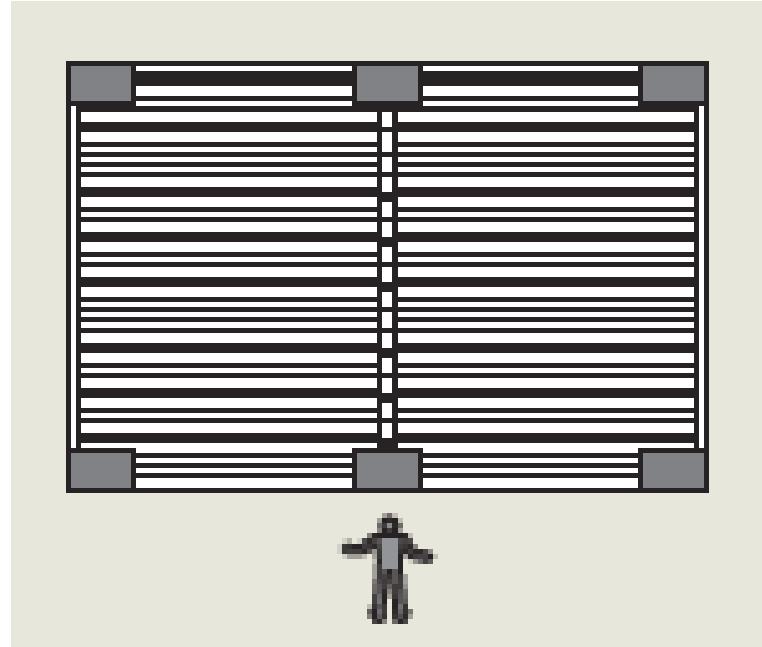
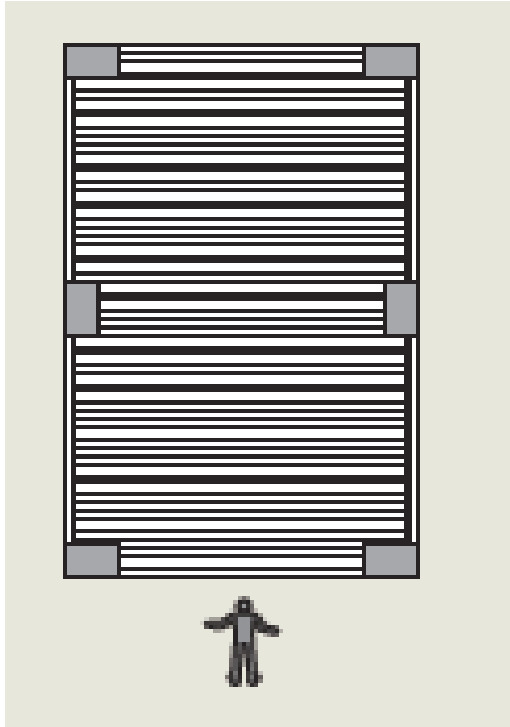
**49 channels / 63 function**

EVO Remote Transmitter

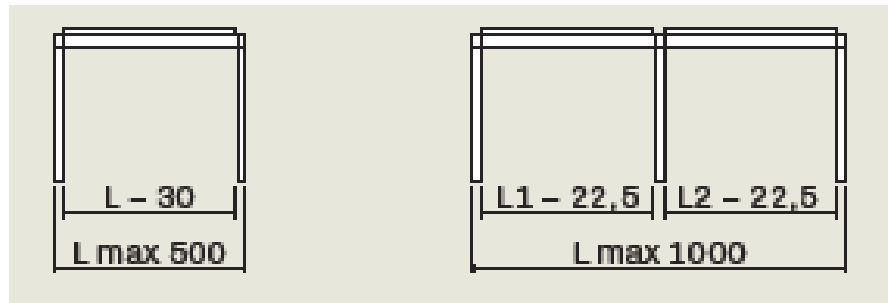
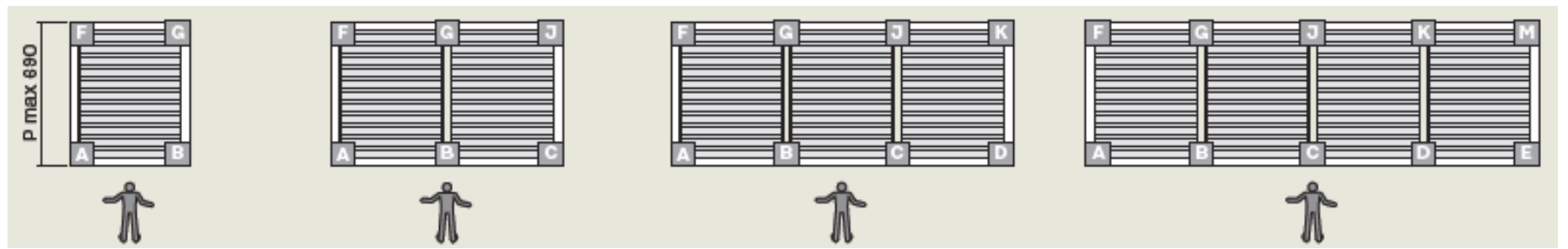
42 channel

FCC ID: P59TVEVO916S

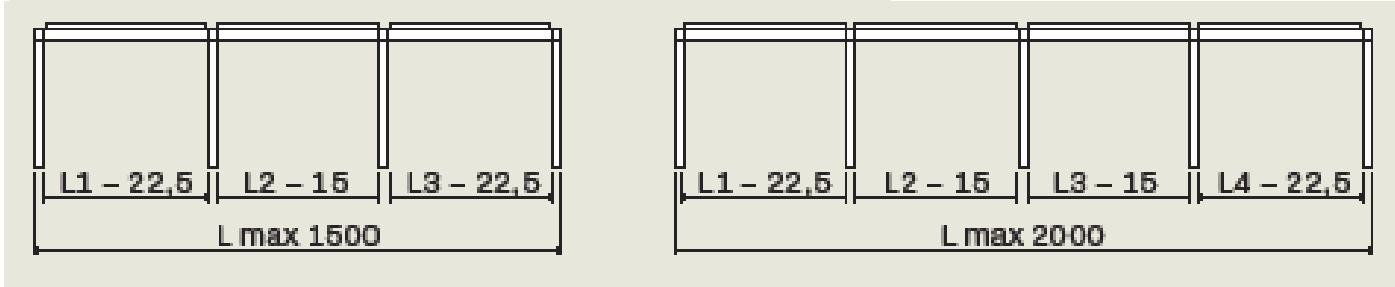
## VISION Post Location and Orientation Diagram.



# VISION 01L: Free standing and if multiple Coupled on projection side.



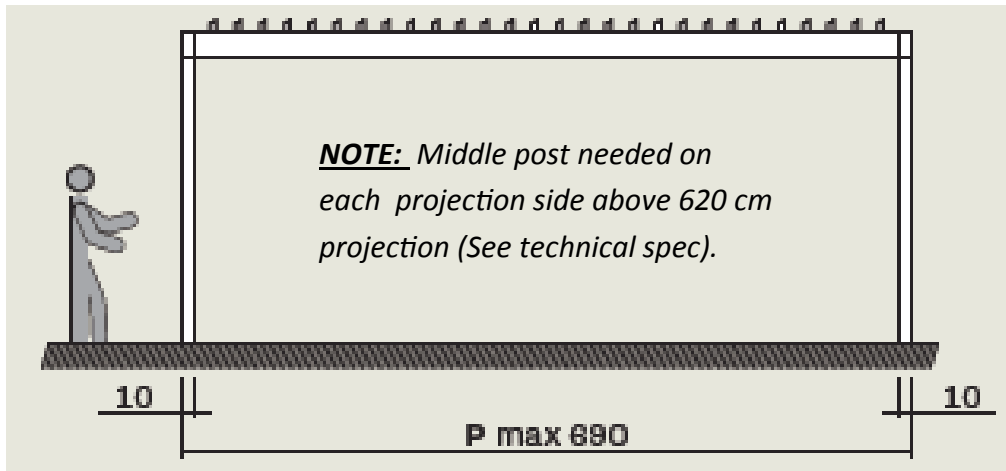
Note: Raso screens not available with VISION model.



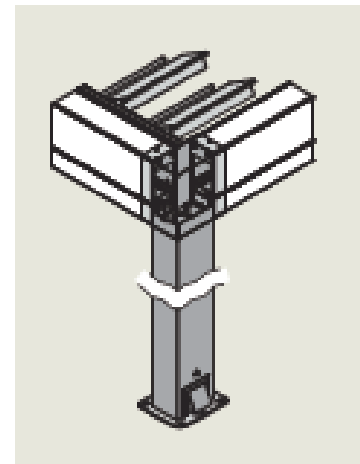
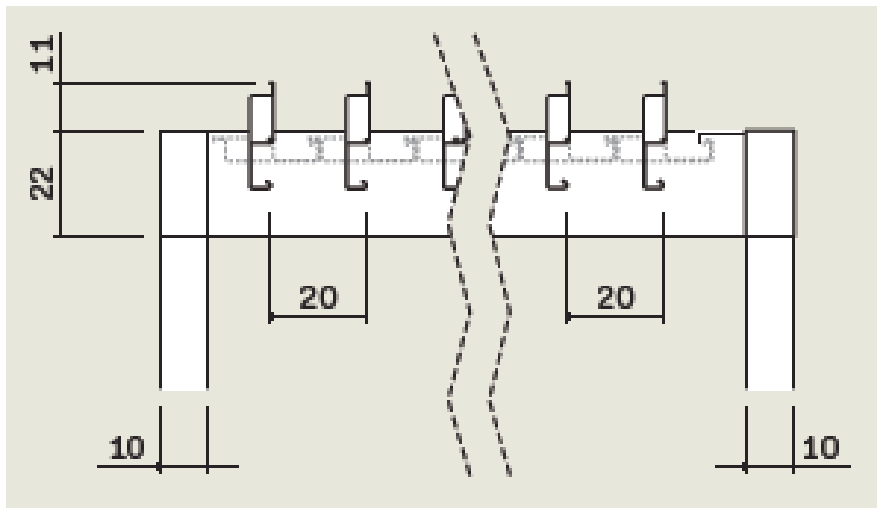
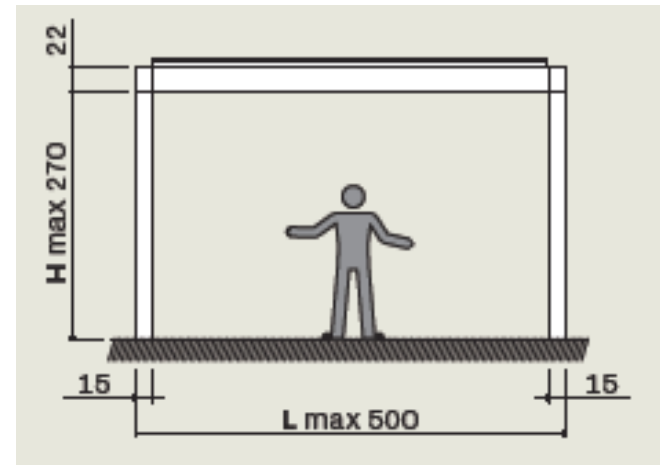


# 01L : Free standing and if multiple Coupled on projection side con't.

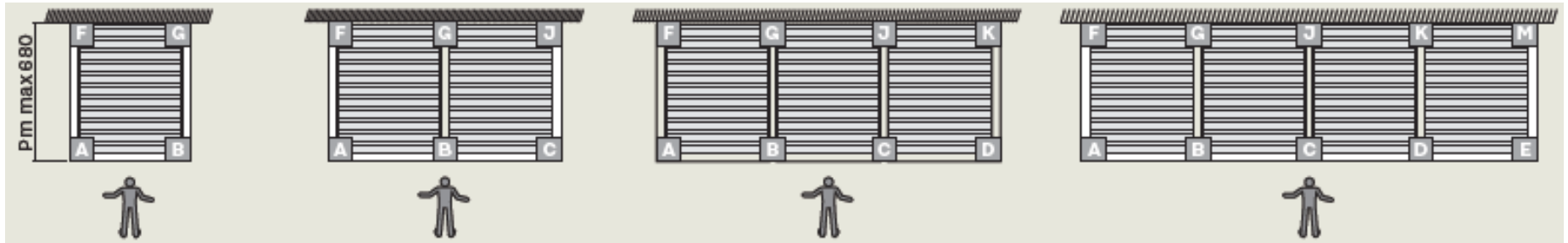
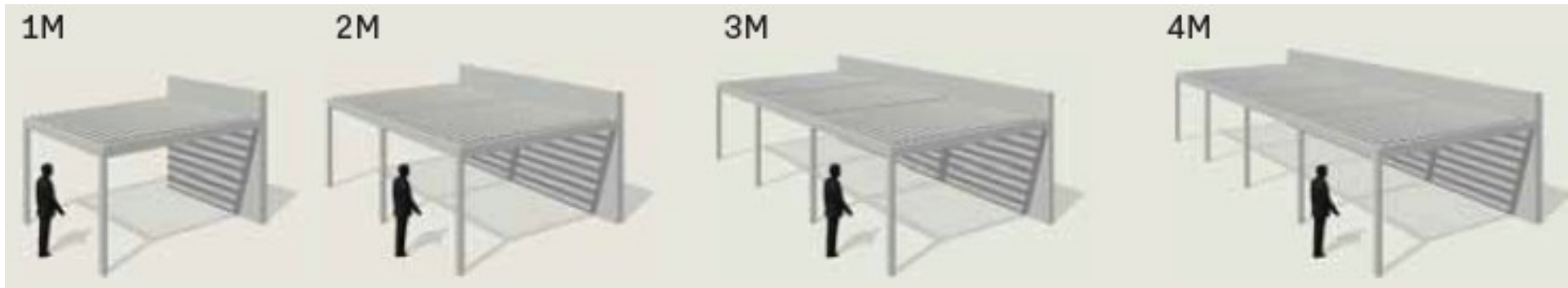
SIDE VIEW



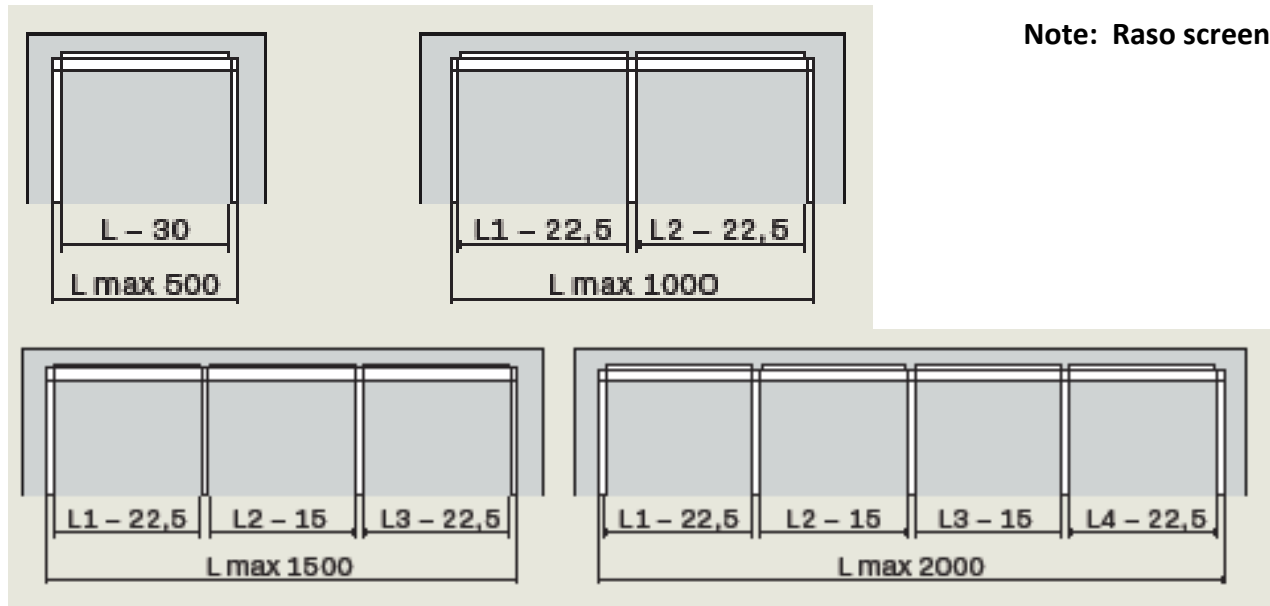
FRONT VIEW



## VISION 02L: Wall Mounted on width side Coupled on projection side.

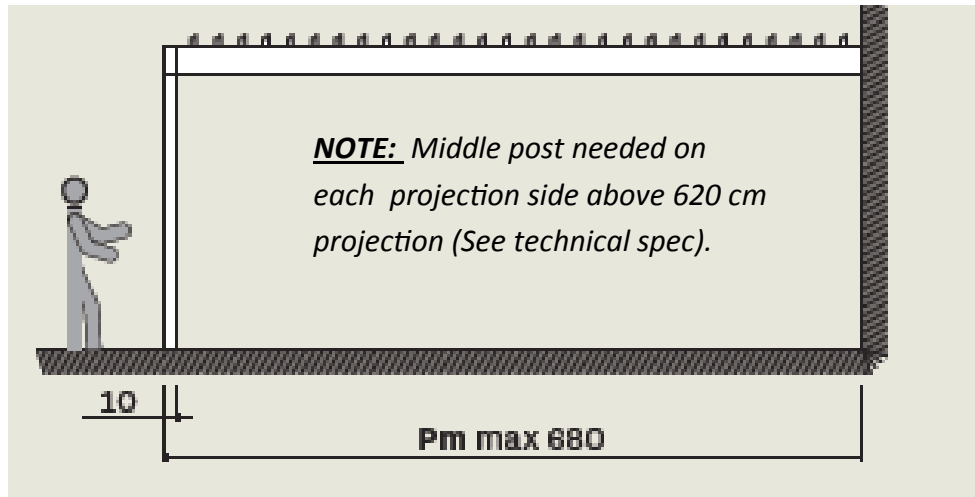


Note: Raso screens not available with VISION model.

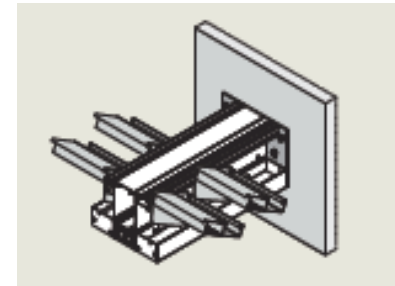
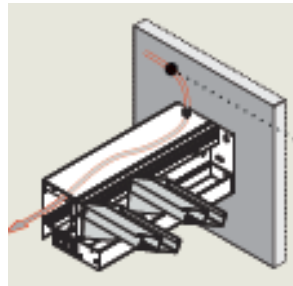
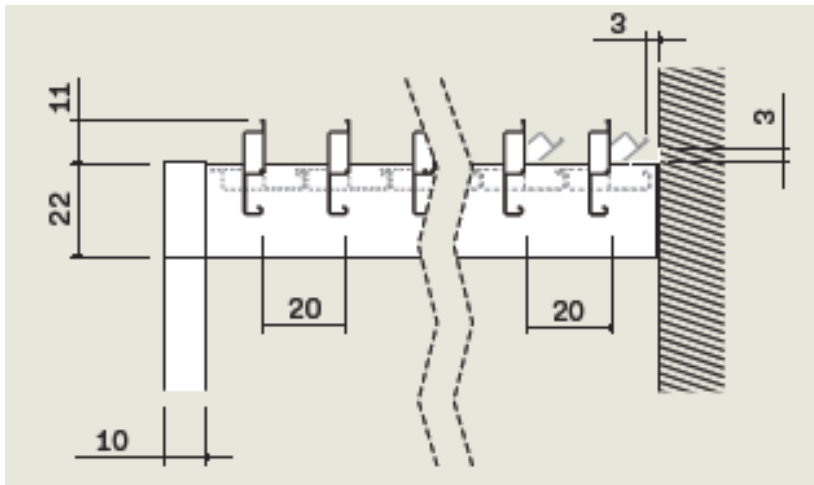
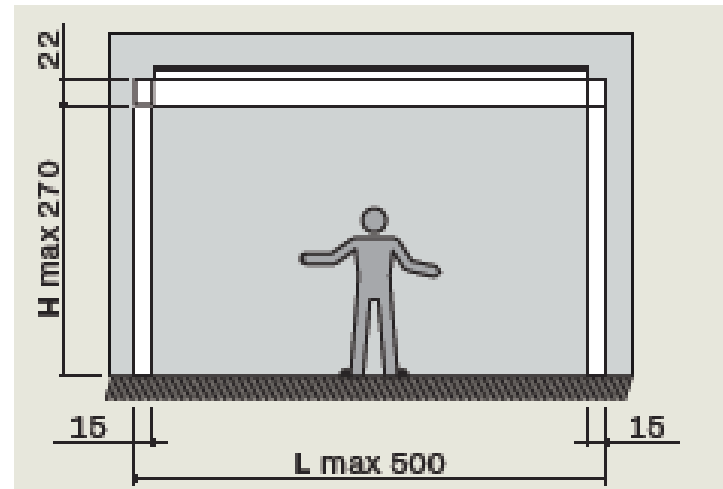


# VISION 02L: Wall Mounted on width side con't.

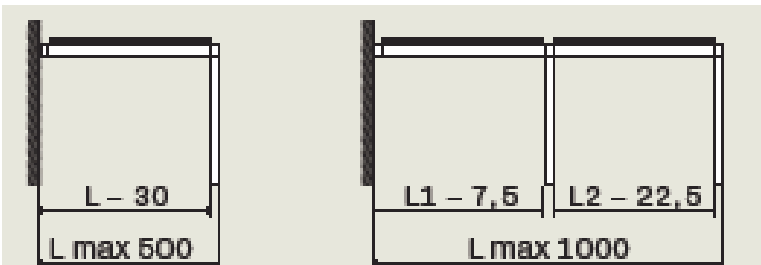
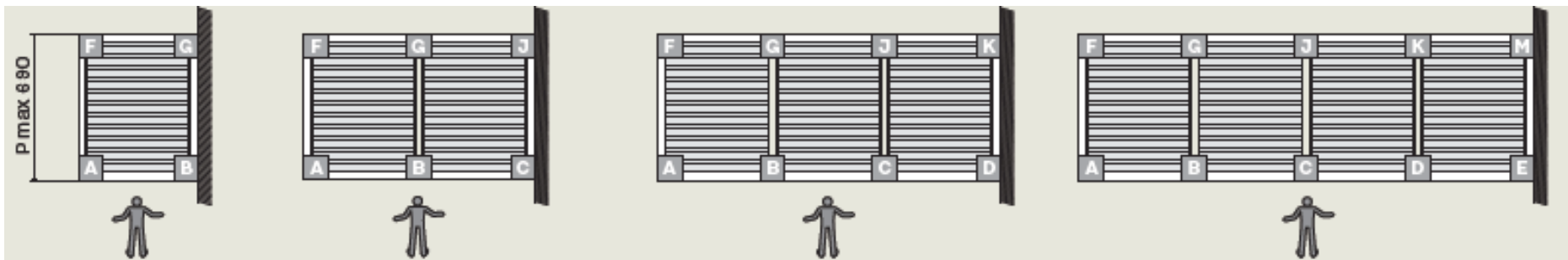
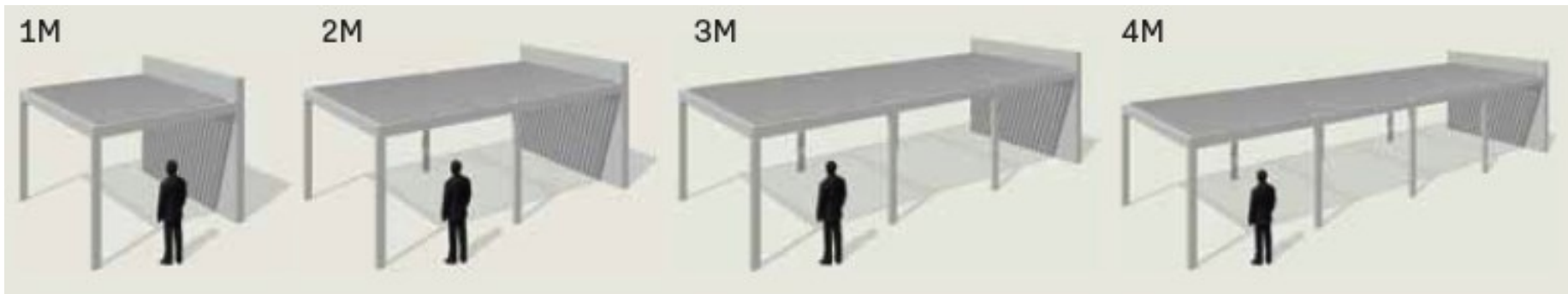
SIDE VIEW



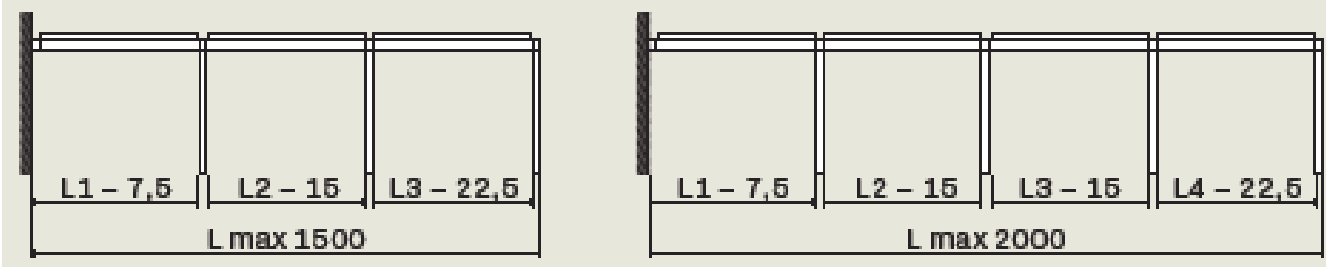
FRONT VIEW



## VISION 03L: Wall Mounted on width side Coupled on width side.

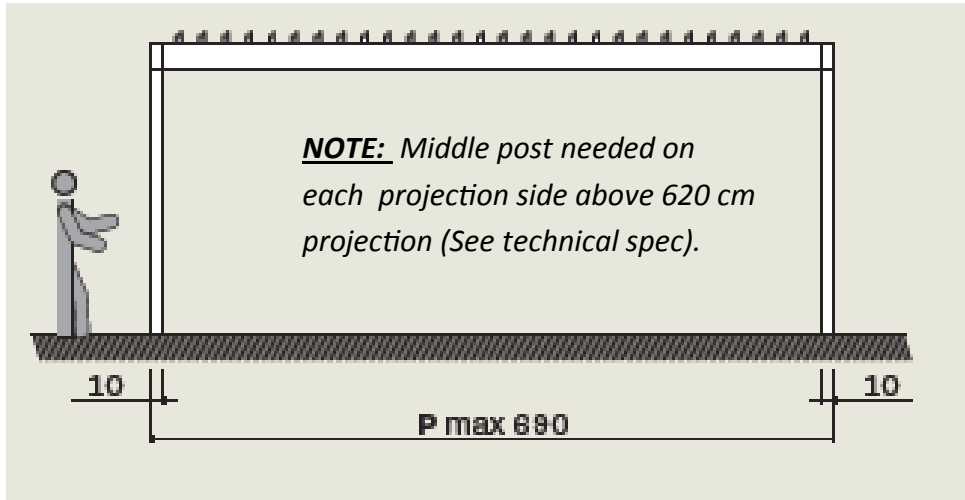


Note: Raso screens not available with VISION model.

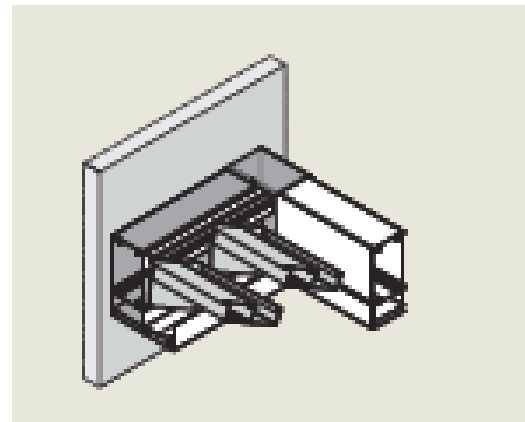
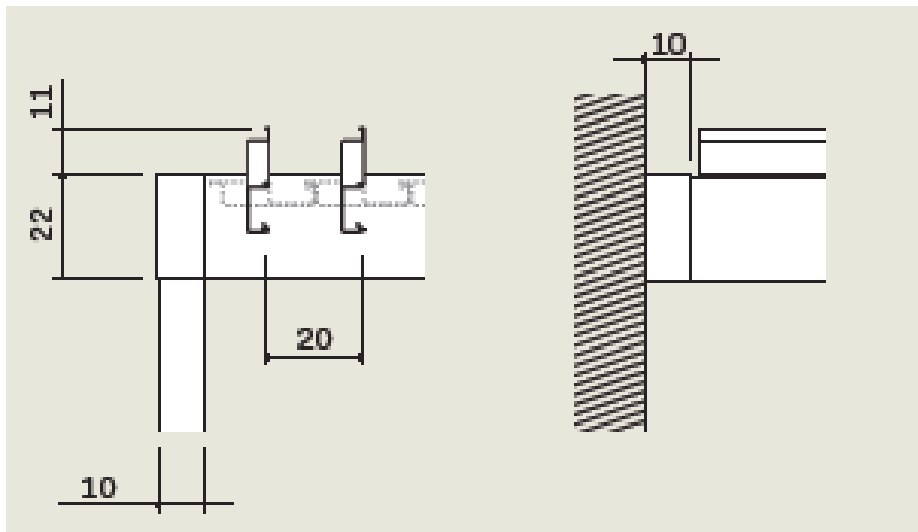
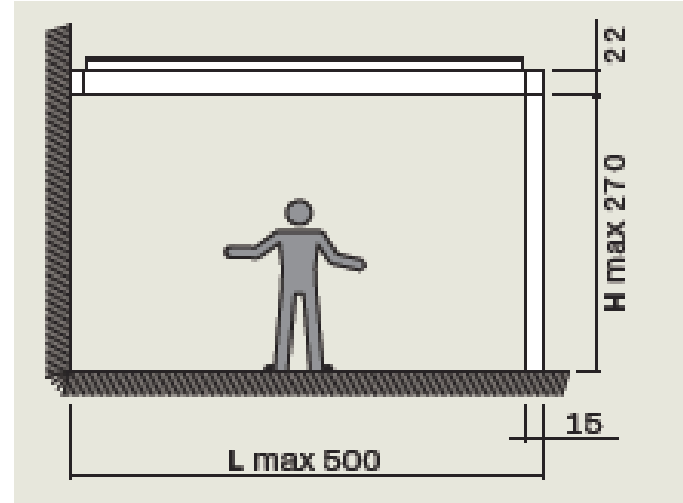


# VISION 03L: Wall Mounted on width side con't.

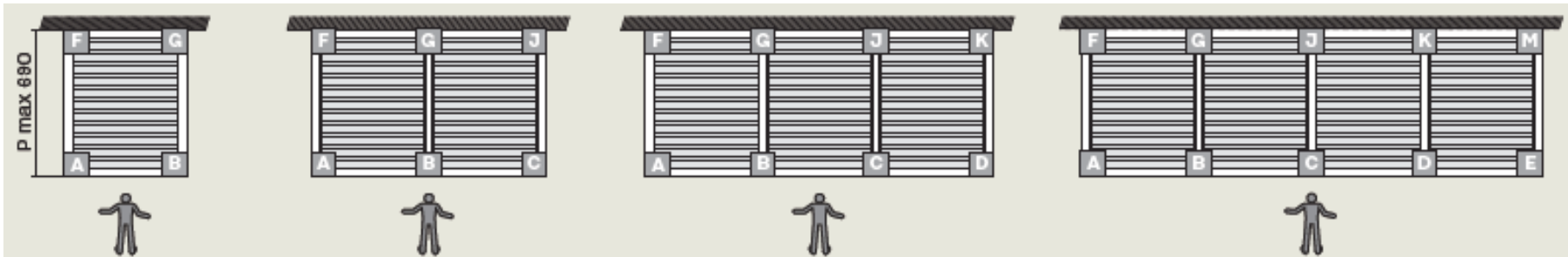
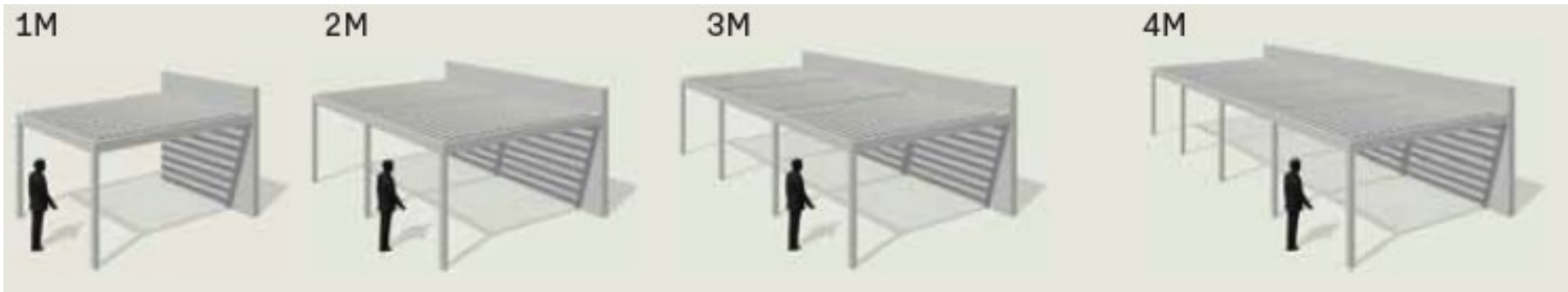
SIDE VIEW



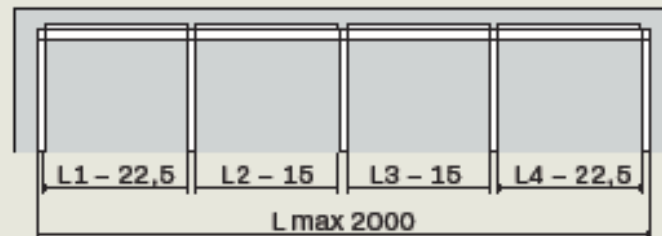
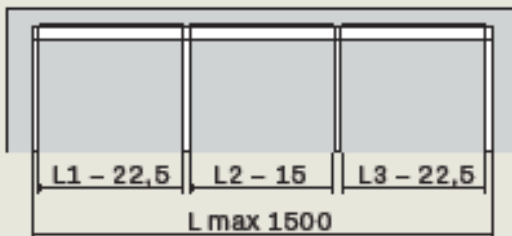
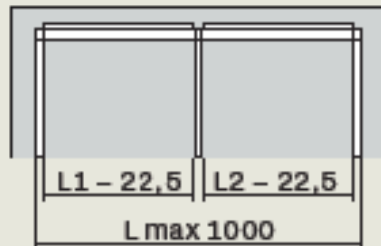
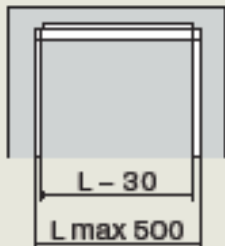
FRONT VIEW



# VISION 04L: Wall Mounted on width side / Coupled on projection side with profile.

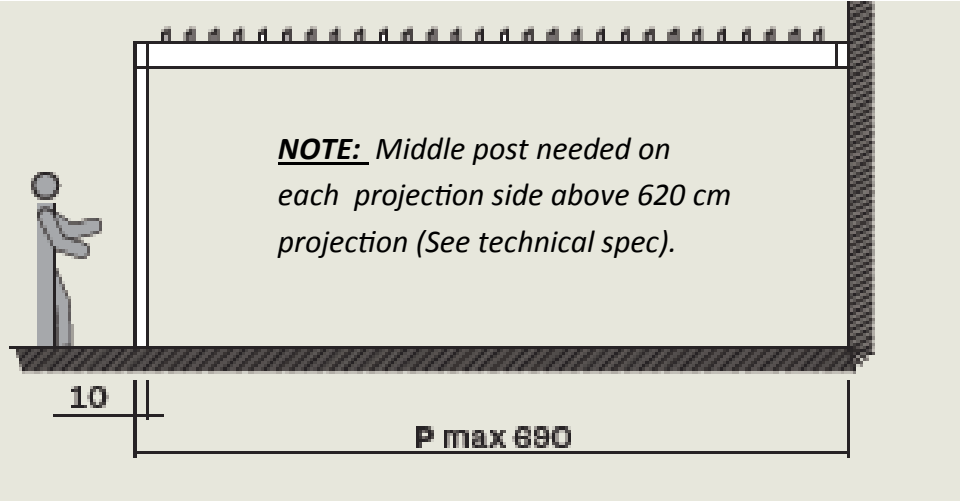


Note: Raso screens not available with VISION model.

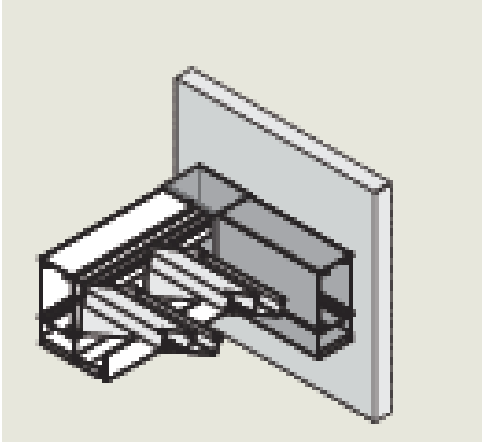
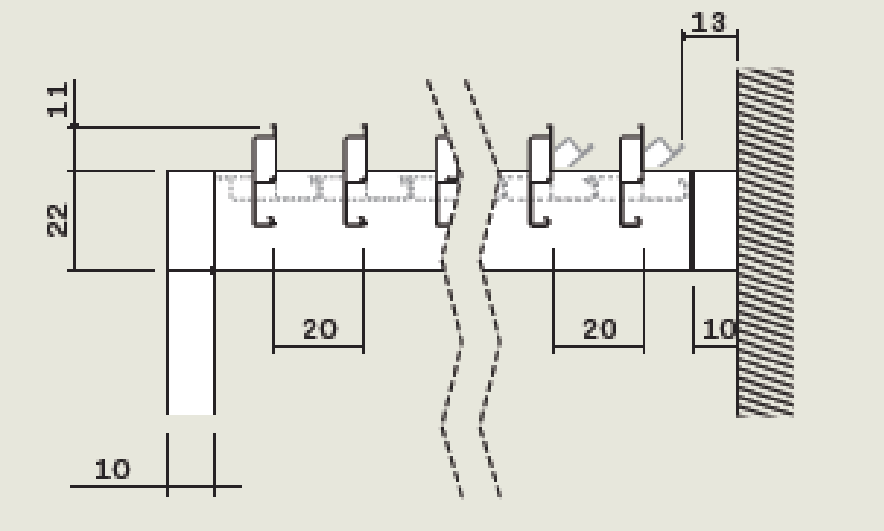
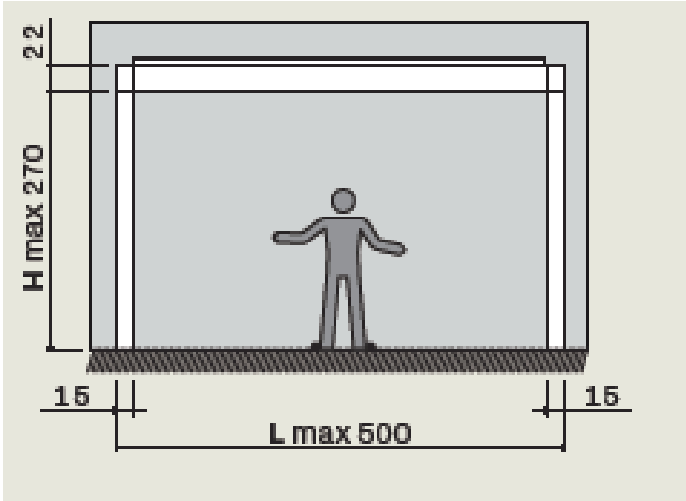


# VISION 04L: Wall Mounted on width side con't.

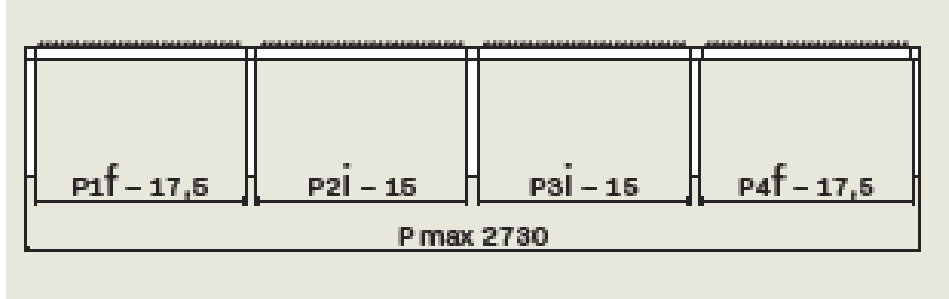
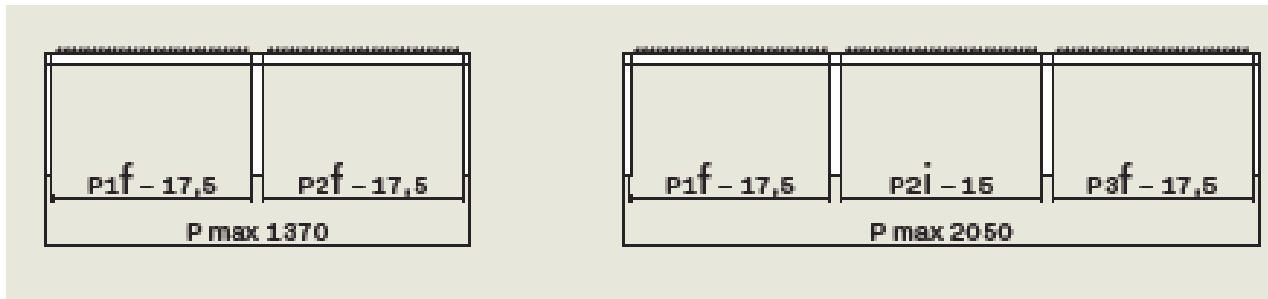
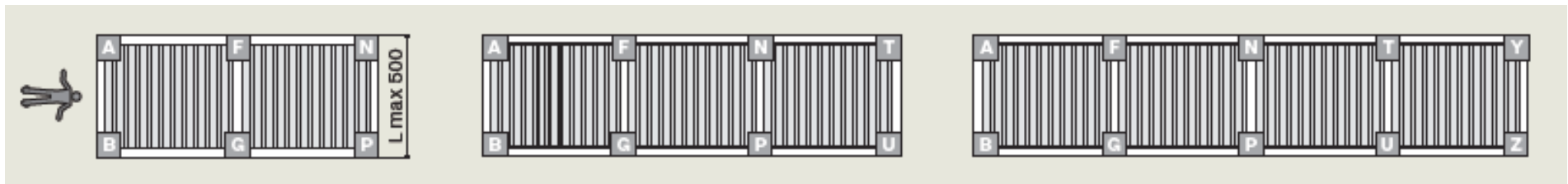
SIDE VIEW



FRONT VIEW



# VISION 01P: Free Standing Coupled on width side.

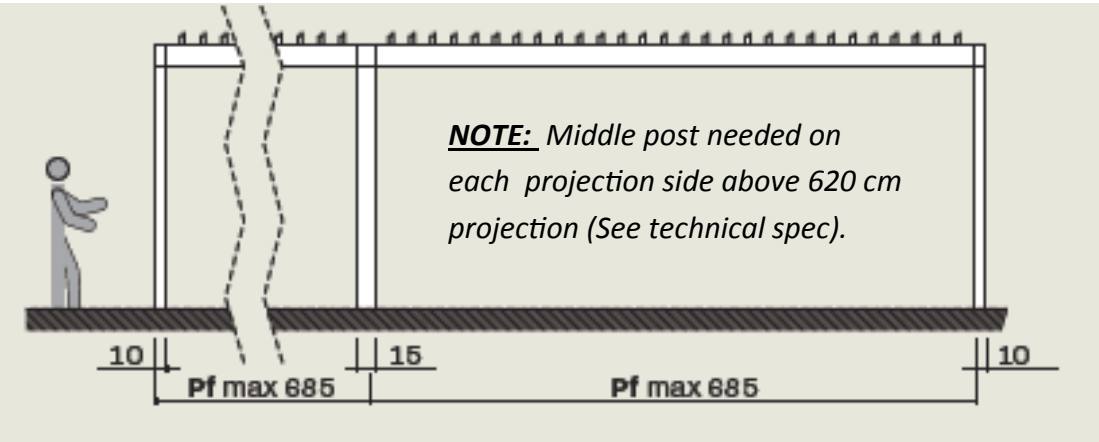


Note: Raso screens not available with VISION model.

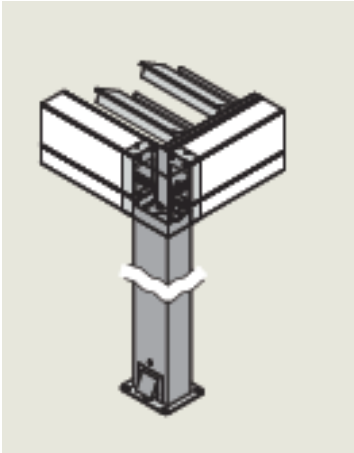
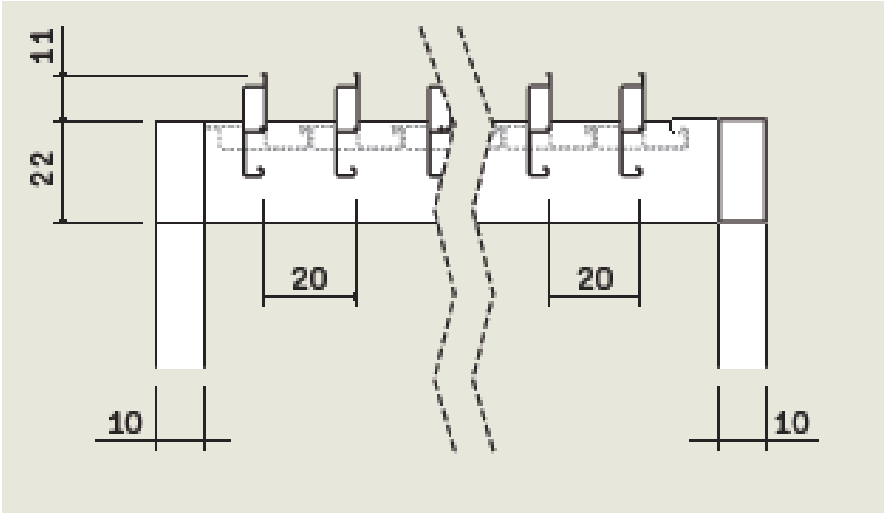
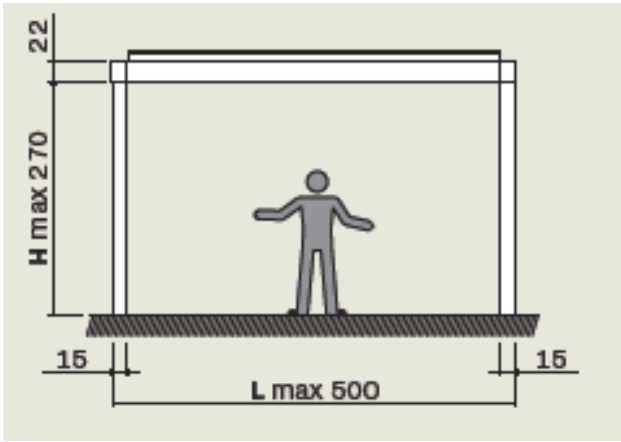


# VISION 01P: Free Standing Coupled on width side con't.

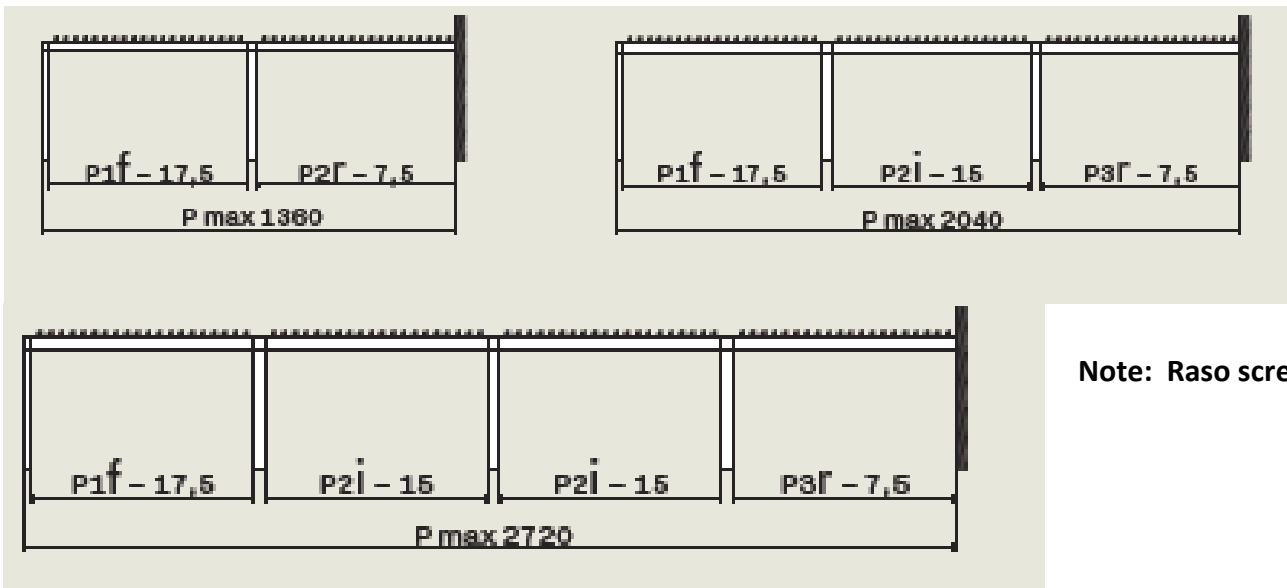
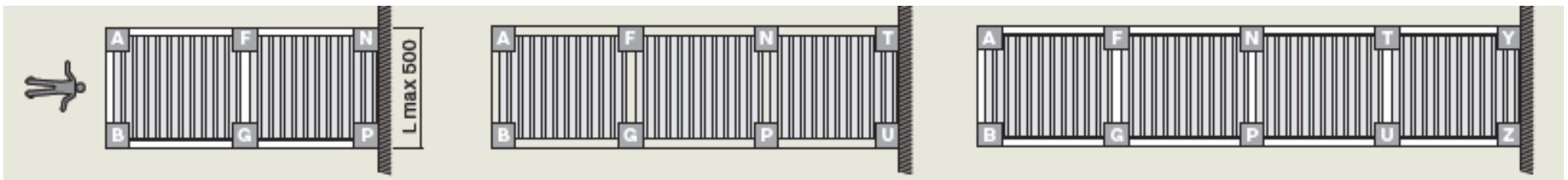
SIDE VIEW



FRONT VIEW



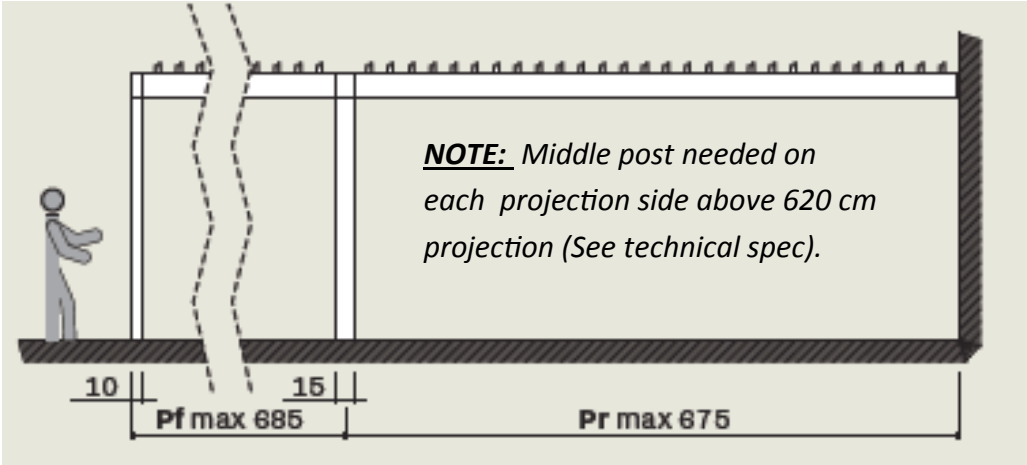
## VISION 02P: Wall Mounted Coupled on width side.



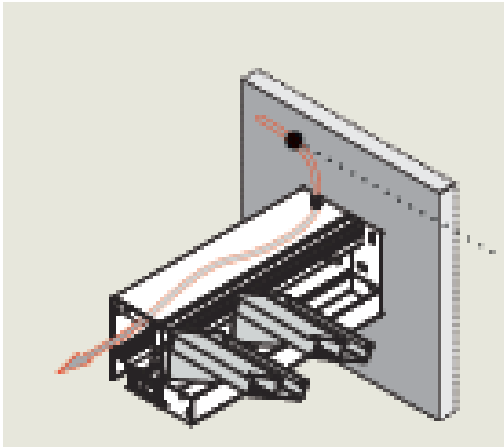
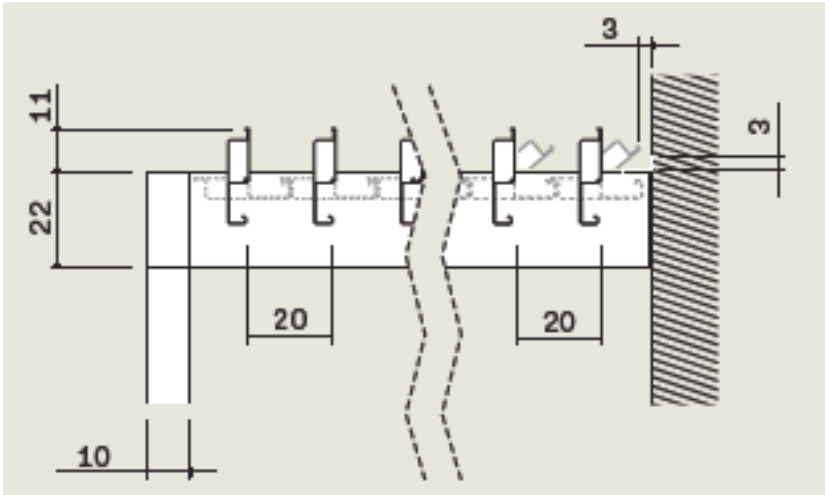
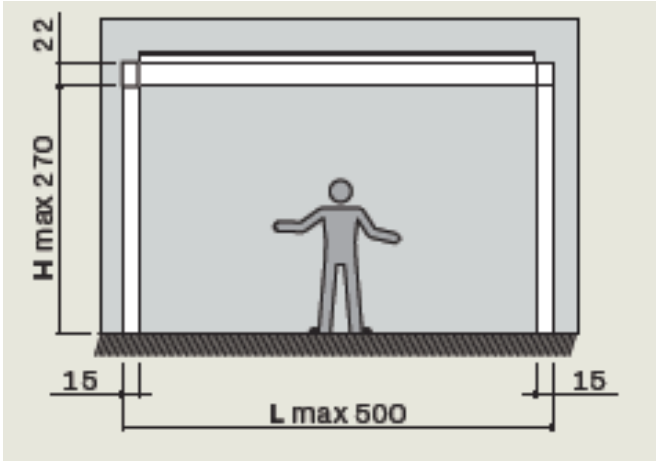
Note: Raso screens not available with VISION model.

# VISION 02P: Wall Mounted con't.

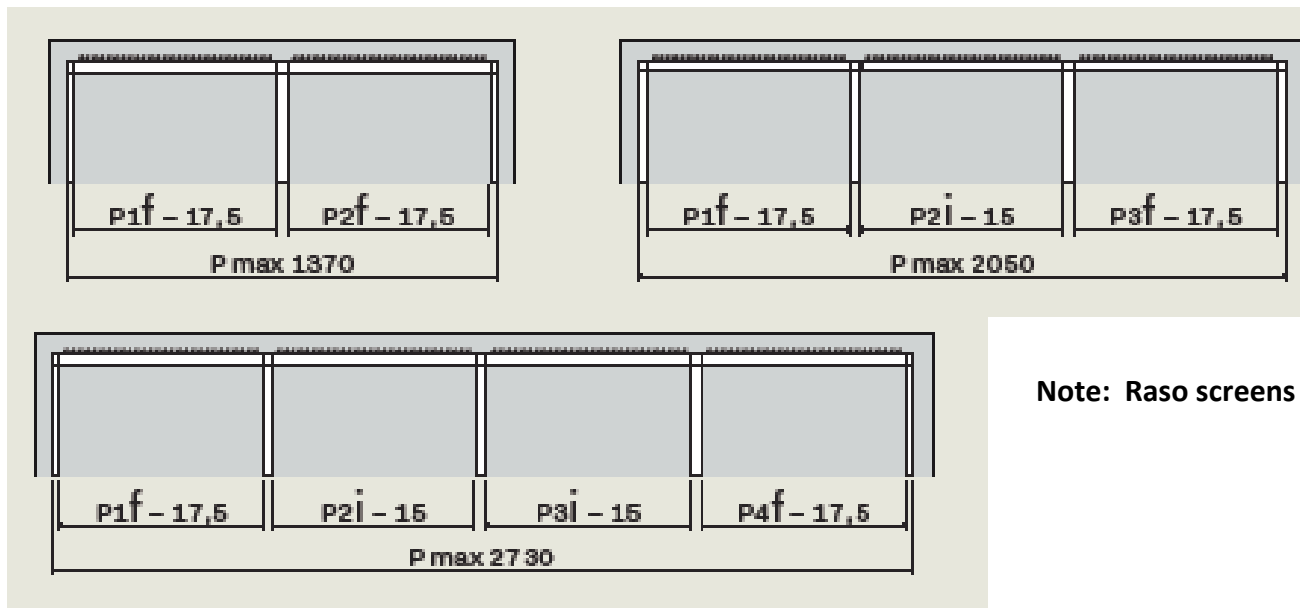
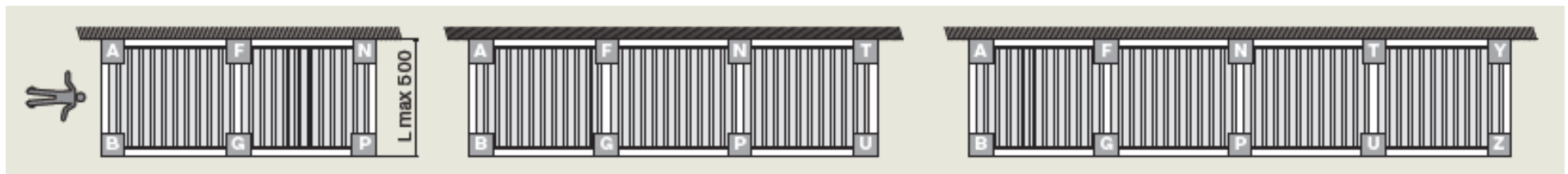
SIDE VIEW



FRONT VIEW



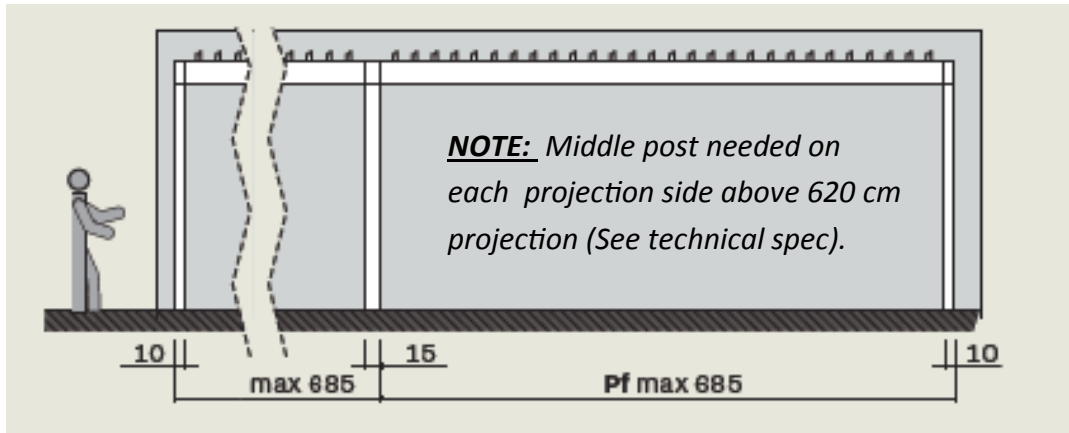
## VISION 03P: Wall Mounted on Projection side Coupled on width side.



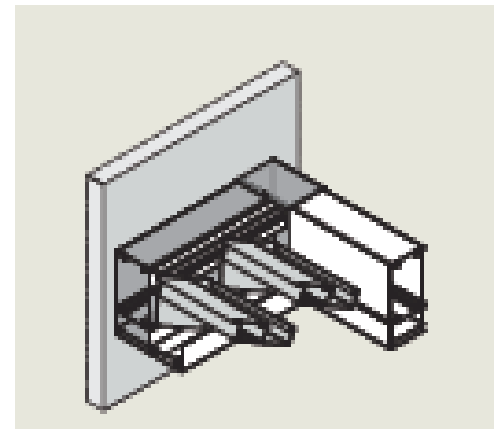
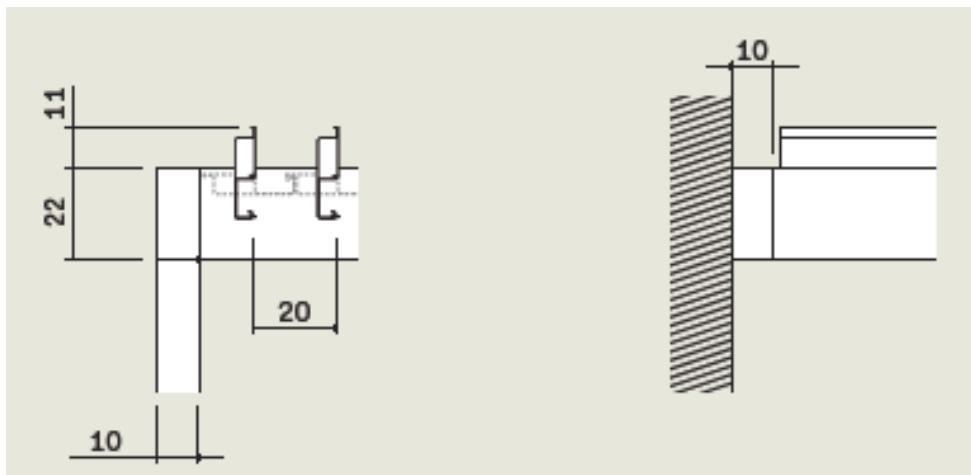
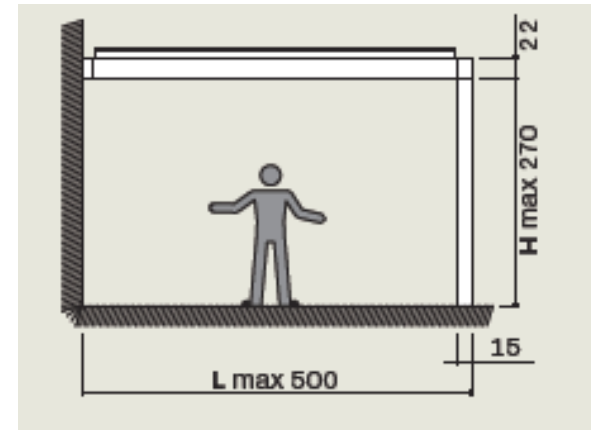
Note: Raso screens not available with VISION model.

# VISION 03P: Wall Mounted on Projection side con't.

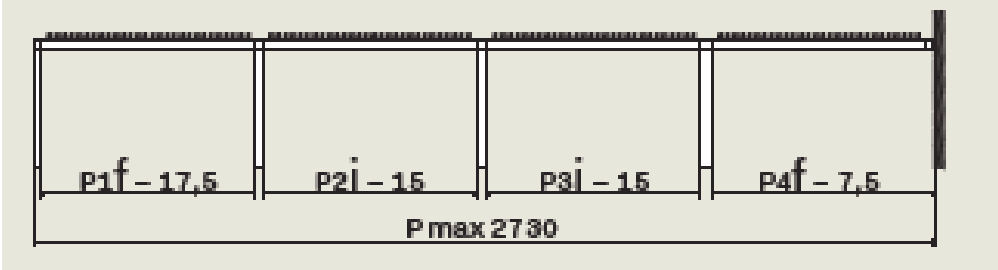
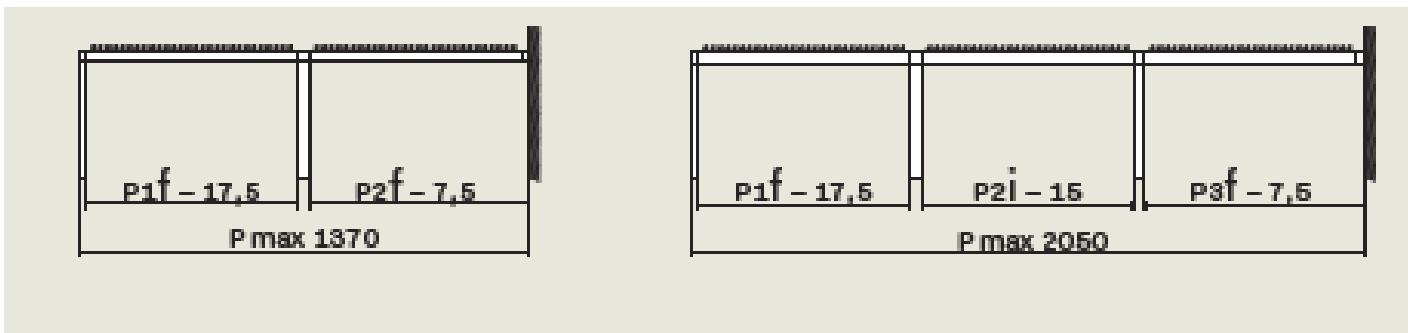
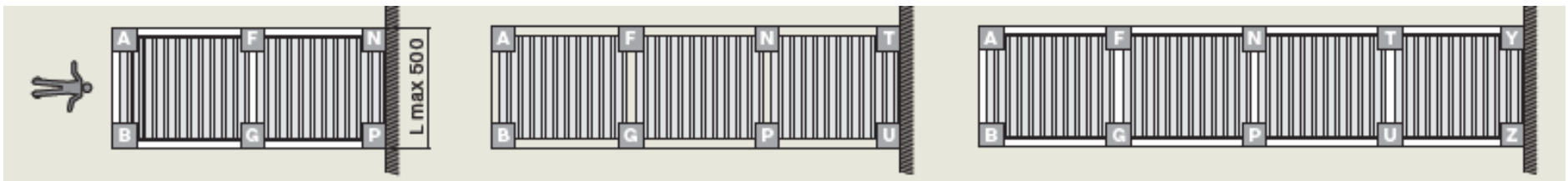
SIDE VIEW



FRONT VIEW



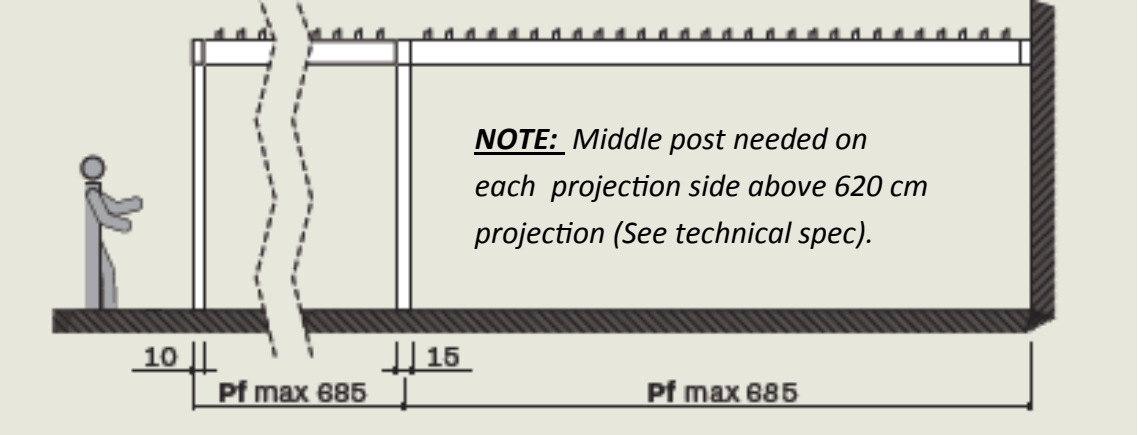
# VISION 04P: Wall Mounted on Width side / Coupled on width side with profile.



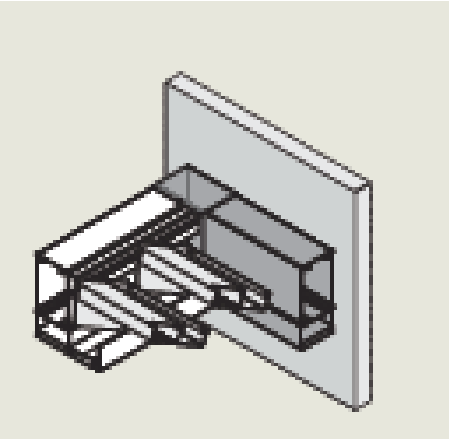
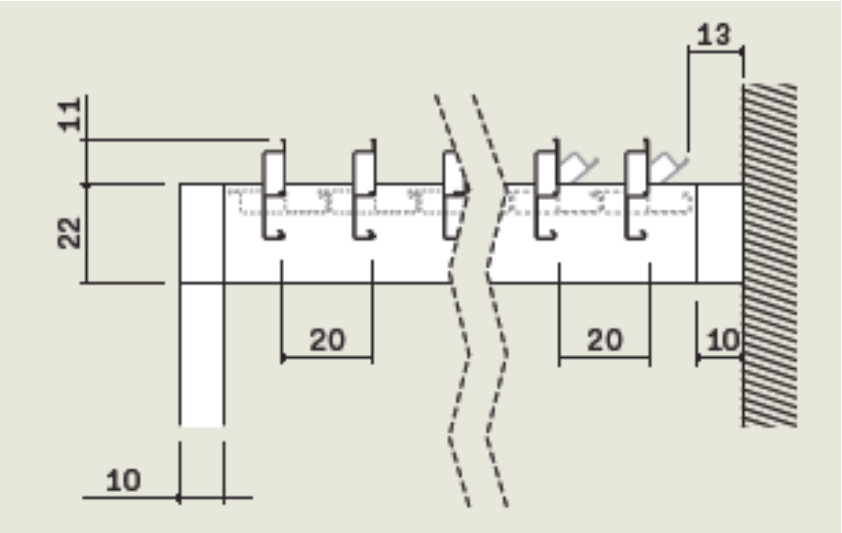
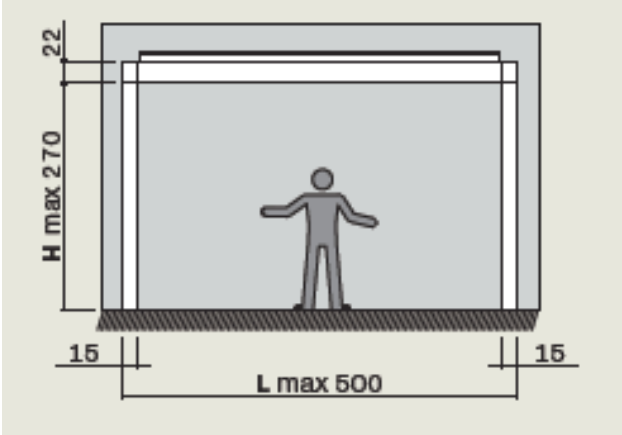
Note: Raso screens not available with VISION model.

# VISION 04P: Wall Mounted on Width side con't.

SIDE VIEW

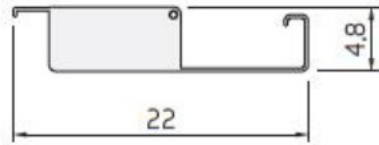


FRONT VIEW

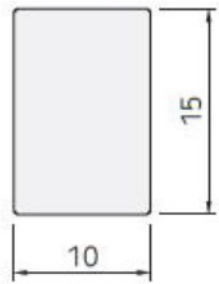


# VISION technical details and dimensions.

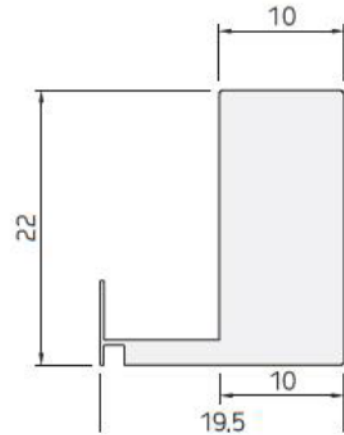
**Blade profile**



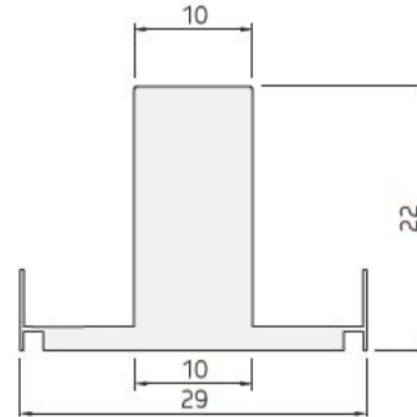
**Vision post profile**



**Vision supporting profile**

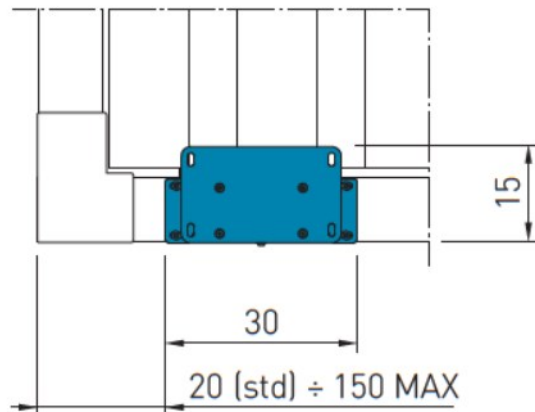
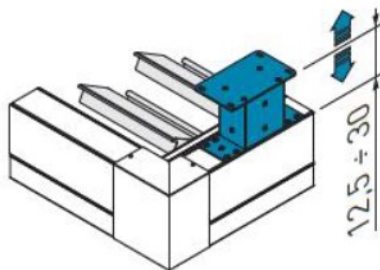


**Intermediate supporting profile**



Standard posts height is 90" (230 cm).  
 Above 230 cm is an upcharge  
 Maximum available Vision post height is 106" (270 cm).

**Ceiling mounting support**



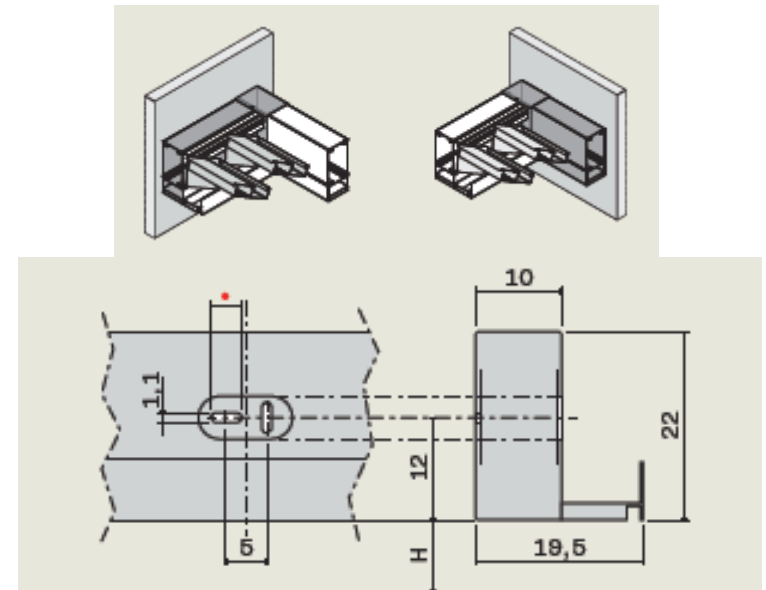
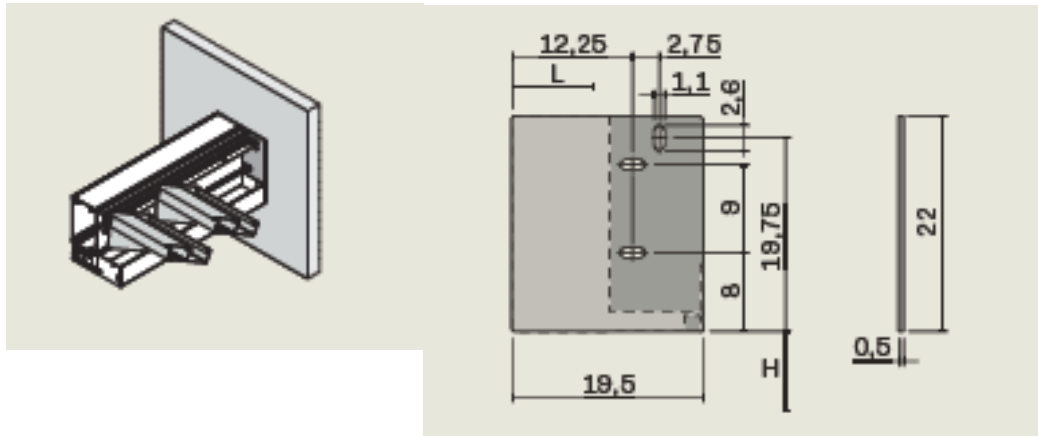
Ceiling mounts,  
 may be ordered to size  
 min 12.5 cm - max 30 cm

The optional corner supports can be installed around the perimeter, and minimum 20 cm from each corner up to maximum 150 cm from each corner.



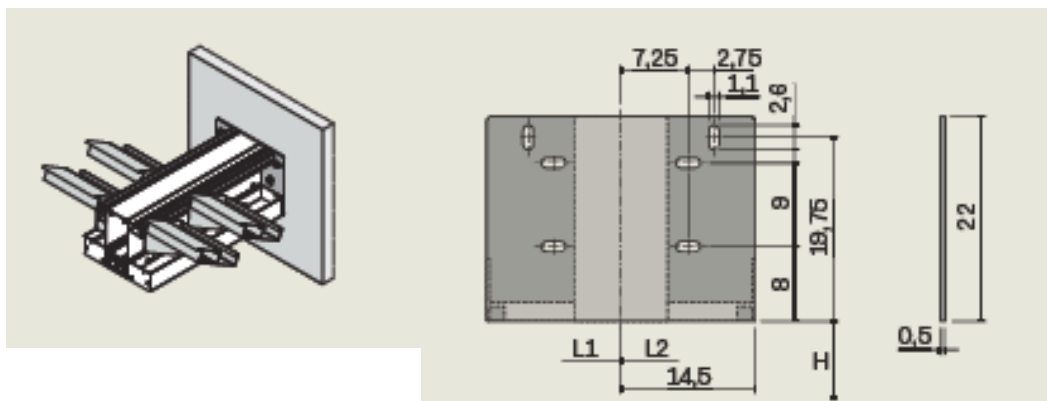
# VISION technical details and dimensions con't.

Wall Mounting bracket mounting at sides



Wall Mounting through the Profile

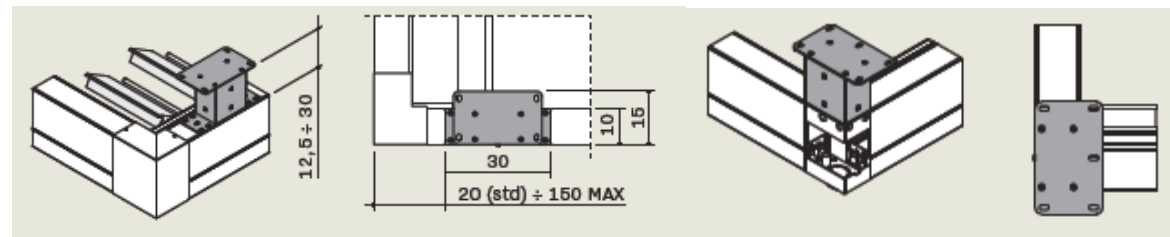
Wall Mounting brackets at Intermediary



Optional Ceiling Mount Brackets ( System height from 12.5 cm to 30 cm)

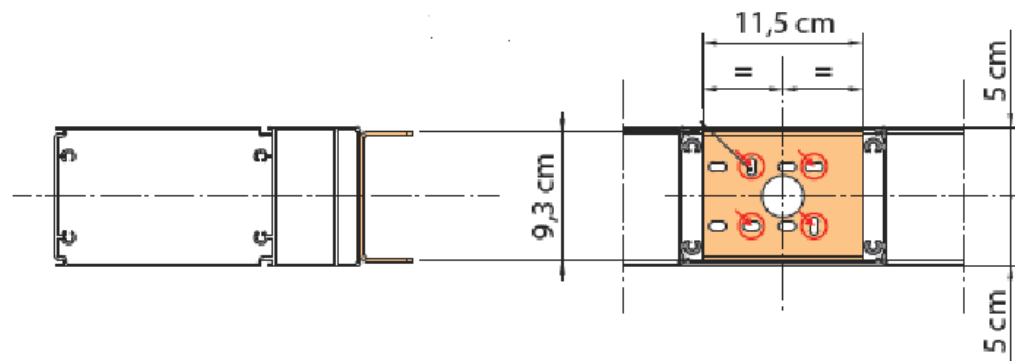
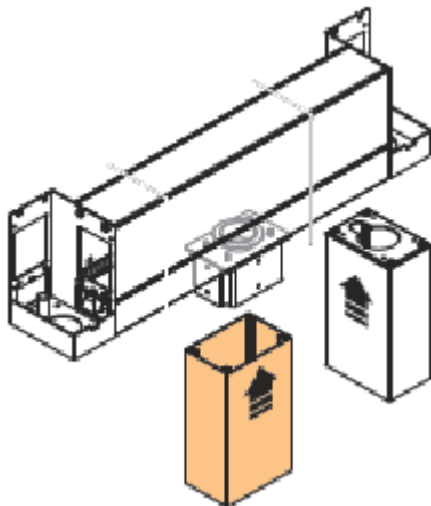
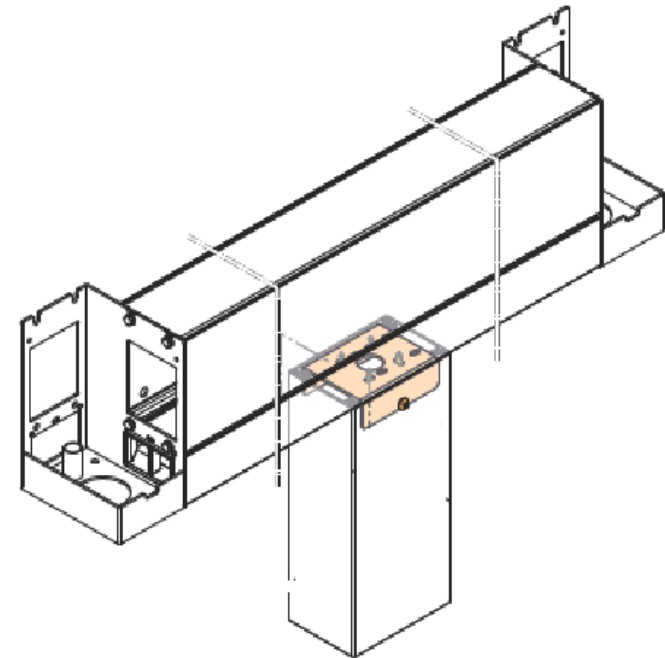
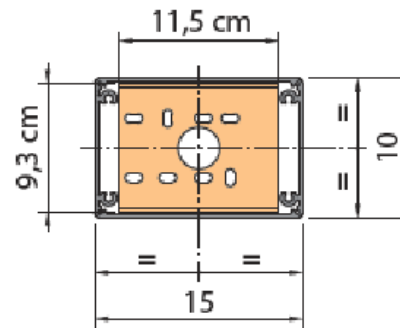
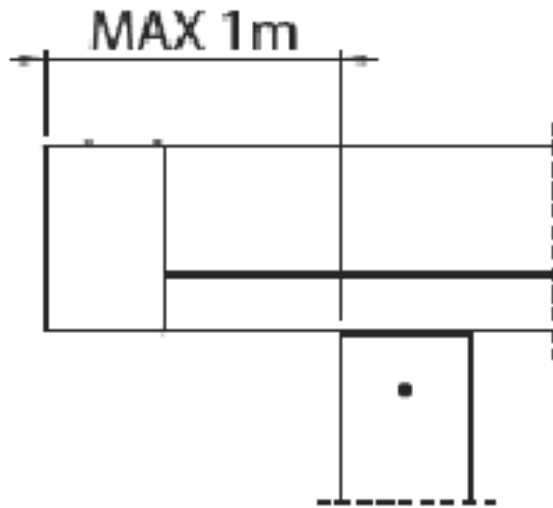
Type B at corner

Type A uneven corner

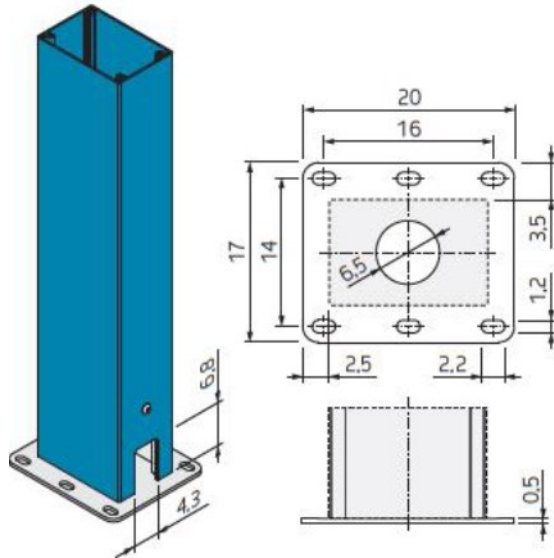


## VISION Offset Posts at front.

It possible to offset the front Vision post by 1 meter or 39 inches from the front. Please inquire on this option to see if it is possible with your configuration (Not available with Opera).

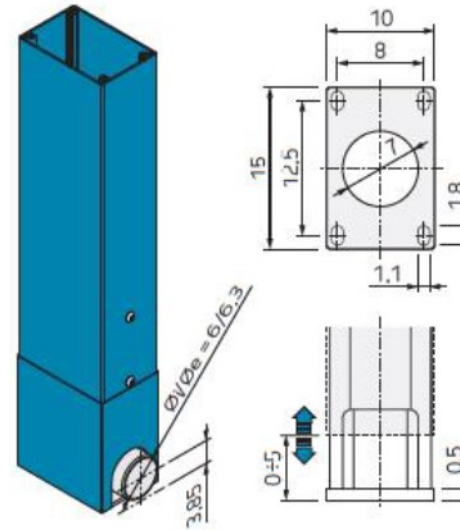


## VISION technical details and dimensions continued.



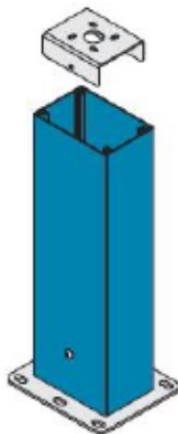
### STANDARD FOOT PLATE

Standard post feet. Standard height is 90" (230 cm). Above 230 cm is an upcharge. Maximum available Opera post height is 106" (270 cm).



### TELESCOPING FOOT PLATE

Optional telescoping feet up to 5 cm (2"). These are ideal on uneven surfaces and should be ordered if RASO screens are configured with the unit.

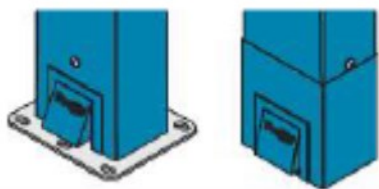
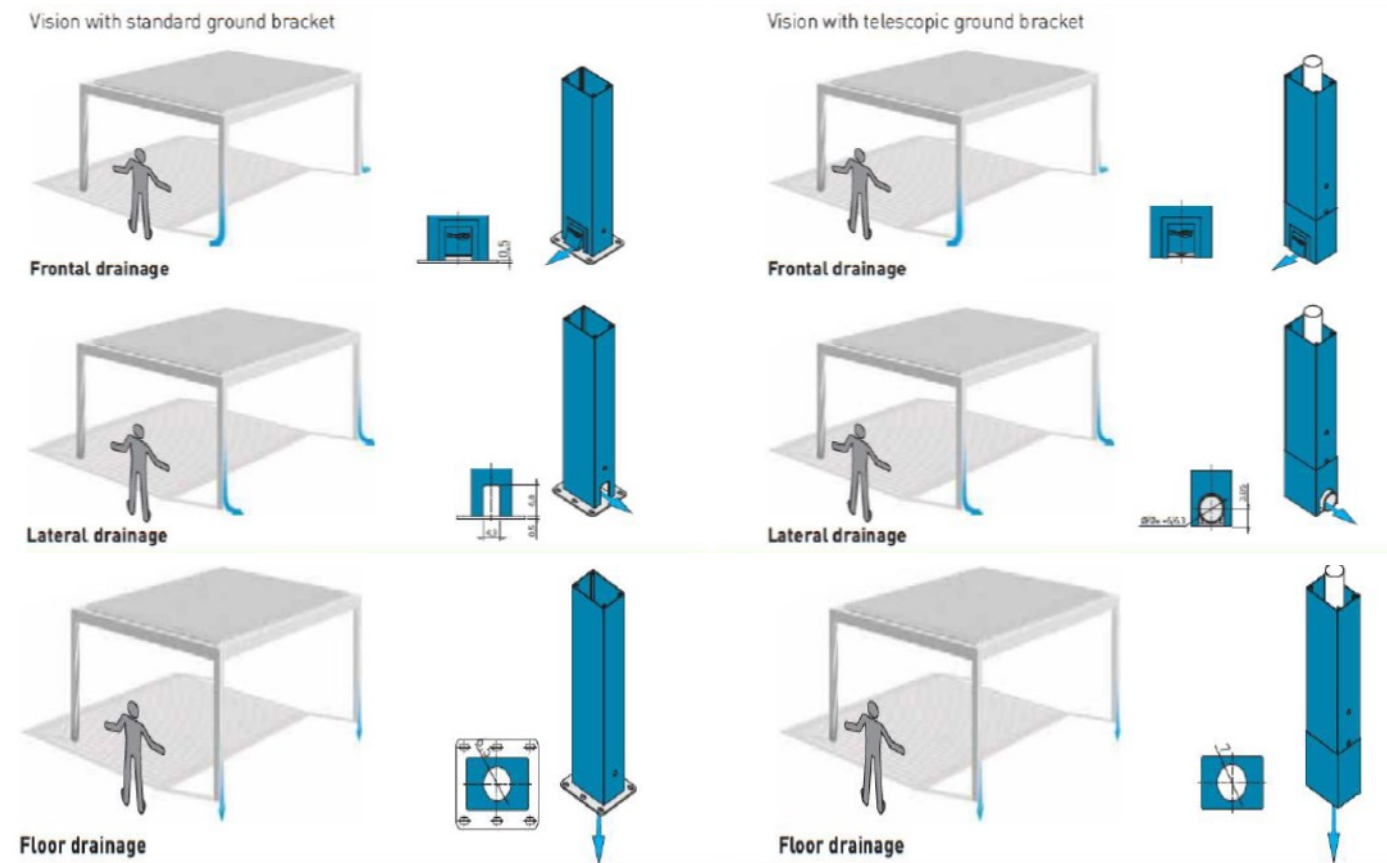


Additional posts with standard feet.

Vision post location diagram



# VISION water drainage details.



Scupper water discharge / flap is supplied in plastic can not be painted.

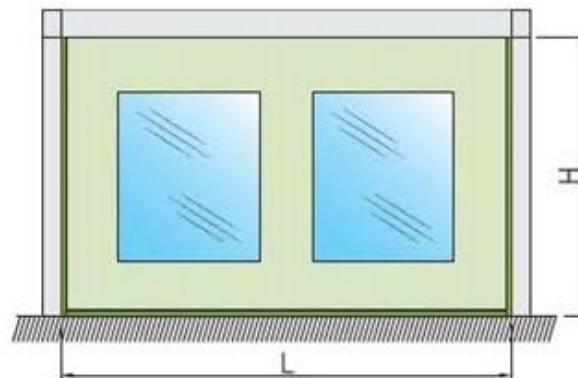
**Note:** you just make bottom of the post even with the decking or patio surface pavers (Do not add pavers around perimeter as they will block the discharge out the sides).

**NOTE:** The VISION louvers are sloped slightly to one side so drainage points are ideally located on the side the louvers are sloping towards in each module. Two drainage points per module is minimum ( More than two is better).



The OPERA model can be fitted with roll down RASO zipper screens for extra weather or sun protection on all sides. This optional screen system can be ordered with either mesh fabric, acrylic, or vinyl fabric and clear "film" windows for keeping moderate weather at bay during the winter months or rain during spring and summer months. If you only need sun protection on the sides or desire to keep mosquitos and pesky bugs at bay, our mesh fabrics will be fine.

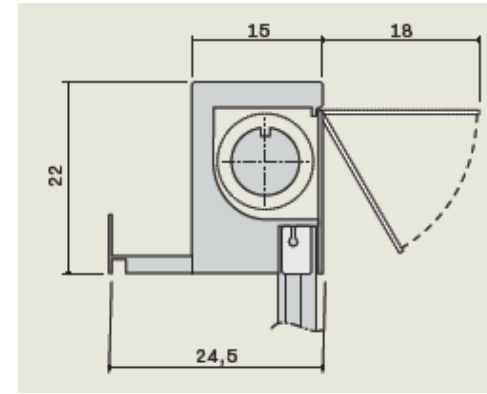
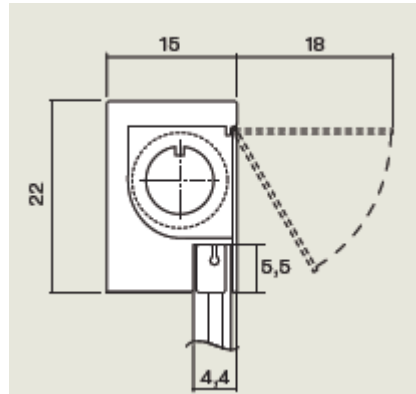
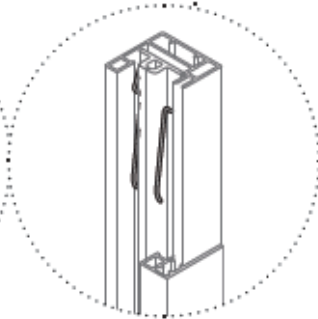
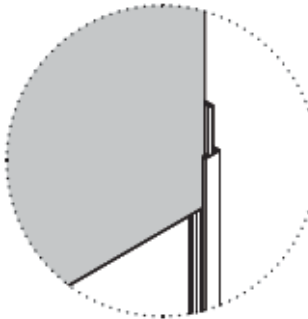
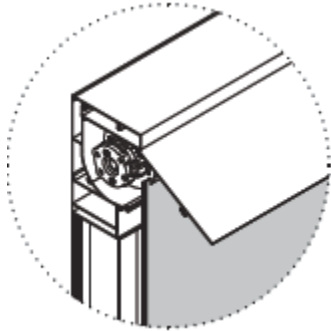
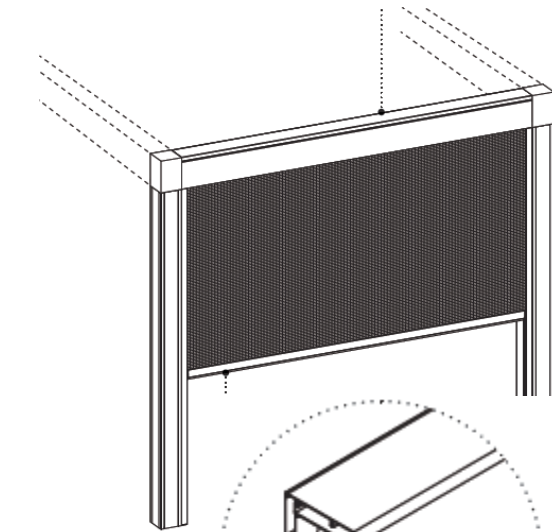
### Raso screens with windows



Minimum border width around screen perimeter must be at least 25 cm (10") when using Ferrari with windows (See illustration above)

### Raso zipper screens with mesh fabric

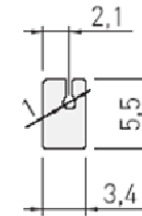
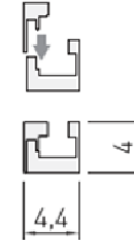
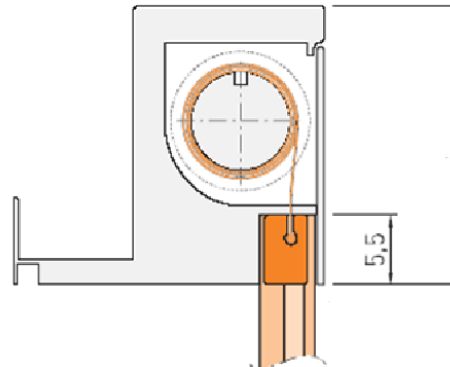
# RASO Screens con't



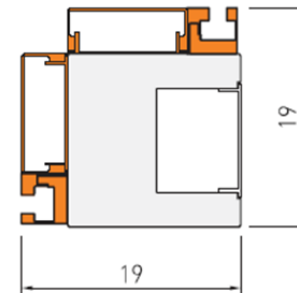
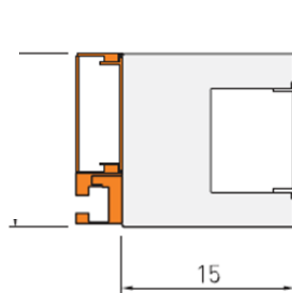
supporting profile with built-in Raso

Zip guide profile

Front profile



Post profile + Raso guide + compensator



Optional Gasket at bottom of hem bar.

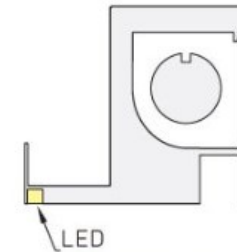
**NOTE:** Typical posts with Raso Track and compensation profile added. Actual posts will vary with each system model.

# OPTIONAL PERIMETER LED LIGHTING OPERA, VISION



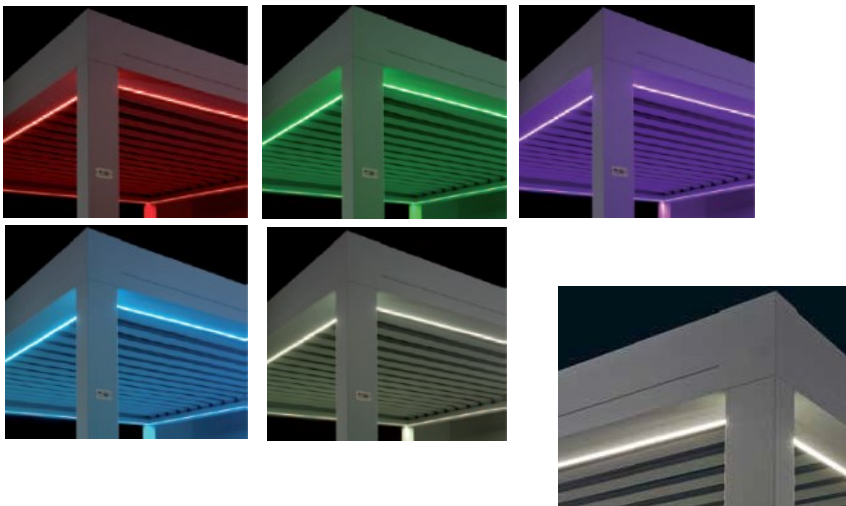
## LED positioning

LED on depth side



The LED lights on the depth side are integrated into the standard gutter profile.

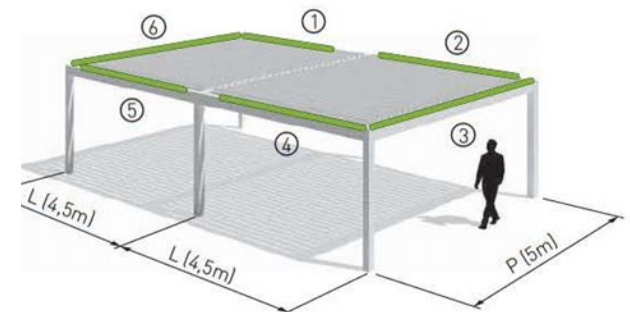
The OPERA ,VISION, can be fitted with remote controlled perimeter LED mood lighting WHITE only or RGB strips. The LED strips are available for the perimeter of the system only and can be multi colored or white only. You can have the system automatically change the color periodically, or keep it one color. The lights are dimmable to the desired brightness. These lights are controlled with the same remote as the louvered 24 volt motor.



## Examples of LED configuration

- 1 22 m LED group (strips ①+②+④+⑤), switching on and dimming in common

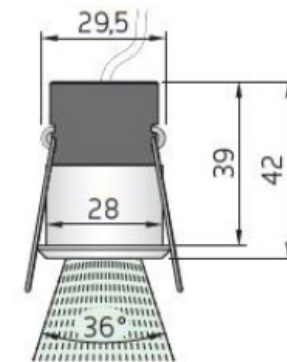
- 2 10 m LED group (strips ①+② and strips ④+⑤), independent switching on and dimming of the 2 groups
- 4 5 m LED groups (strip ①, strip ②, strip ④, strip ⑤) independent switching on and dimming of the 4 groups



# OPTIONAL SPOT LIGHTING OPERA & VISION only



Not available with Bera model



Detail of SPOT LIGHT

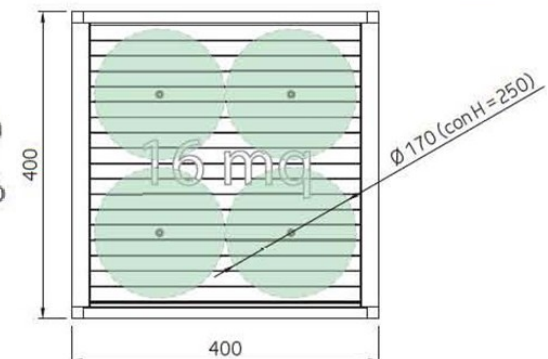
The OPERA & VISION can be fitted with white spot lights which can be added to the louvers where desired. The lights are dimmable to the desired brightness. These lights are controlled with the same remote as the louvered 24 volt motor.

Opera and Vision can include a lighting system using SPOT LIGHT dimmer lights recessed in the blades wherever you wish.

The spotlights must be ordered at the same time as the Bioclimatic structure. Full electrical hook-up, with wiring and spotlight installation will be done by Pratic.

## CHARACTERISTICS

- LED 24 Vdc bulbs
- IP54 degree of protection
- 3000 K light colour
- Consumption: 4.5 W/bulb
- Light beam angle: 36°
- Light emission: 380 lm



Example of light projection for Opera structures W = 400 D = 400 H = 250 with four spotlights

**NOTE: Spot lights not available with BRERA model.**



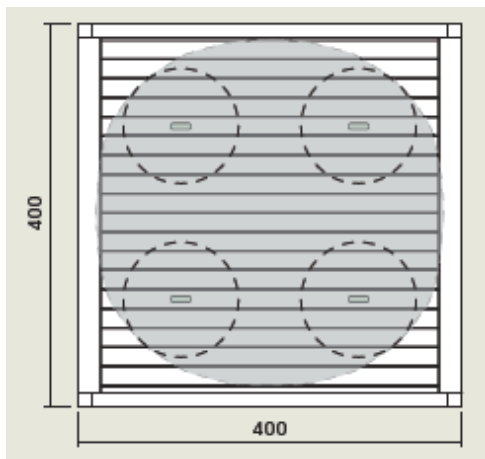
## OPTIONAL QUADRA LIGHTING OPERA , VISION,



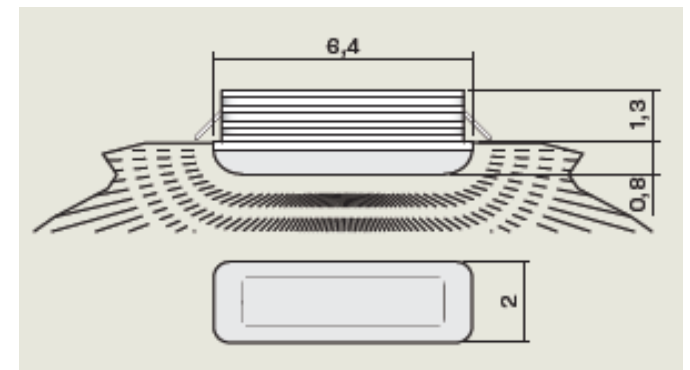
### TECHNICAL SPECIFICATIONS

- Dimmerable
- Installed recessed on the blades
- Pre-assembled electrical system
- They must be ordered together with the structure
- Any after-sales requests of installation involve the invalidity of the guarantee for mechanical and electronic processing
- Minimum two Quadra Light can be installed on every blade
- Recommended distance from the edge 50 cm
- Maximum distance between Quadra Light lights 150 cm
- A rain sensor is recommended to avoid prolonged exposure to the rain with blades open

The OPERA , VISION, & BRERA can be fitted with white the Quadra Light which can be added to the actual louvered strips where desired. The lights are dimmable to the desired brightness. These lights are controlled with the same remote as the louvered 24 volt motor.



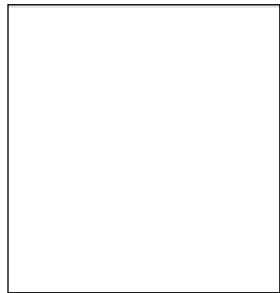
<b><u>POWER SUPPLY:</u></b>	LED 24 Vdc
<b><u>PROTECTION GRADE</u></b>	IP44
<b><u>LIGHT COLOR</u></b>	3000 K
<b><u>CONSUMPTION / BULB</u></b>	4.5 W
<b><u>LIGHT OUTPUT</u></b>	460 Lumens / m
<b><u>LIGHT PROJECTION</u></b>	WIDESPREAD



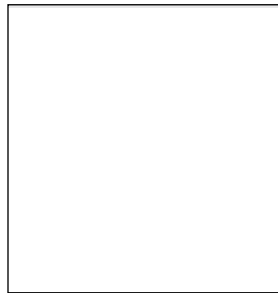
**NOTE: Quadra lights not available with BRERA model.**

# STANDARD FRAME COLORS FOR OPERA & VISION:

*NOTE: Optional for OPERA, VISION is to have Structure and louvers in two different colors.*



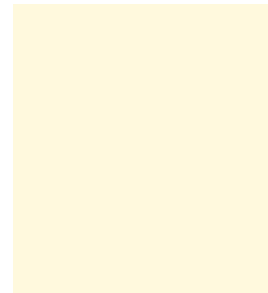
**WHITE Gloss**  
Ral 9010



**WHITE SAND**  
Coarse Ral 9016



**IVORY SAND**  
Ral 1013 Coarse



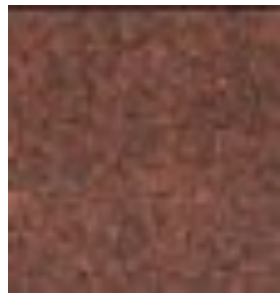
**IVORY / SEMI**  
Gloss Ral 1013



**GREY SAND**  
Gloss Ral 9006



**BRIGHT ALUM**  
Matt Ral 9006

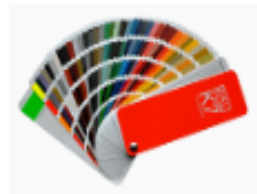


**CORTEN**  
Coarse



**IRON GREY**  
Coarse

**OPTIONAL**



**FULL RAL COLOR**  
RANGE / EXTRA  
COST

NOTE: These eight (8) colors are “super durables” which offer better durability compared with standard polyesters powders.



**NOTE:** ACTUAL FRAME COLOR MAY VARY FROM DIGITAL IMAGES

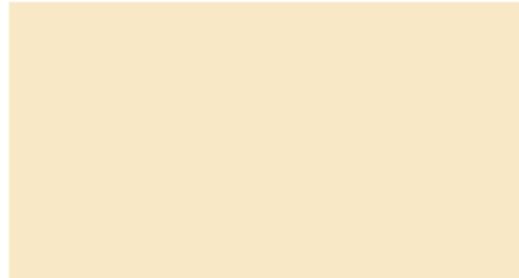
# PERGOLA STANDARD FABRIC COLORS RASO SCREENS

## 602 FLEX LIGHT CLASSIC / OPAQUE COLORS



602-8503-98"

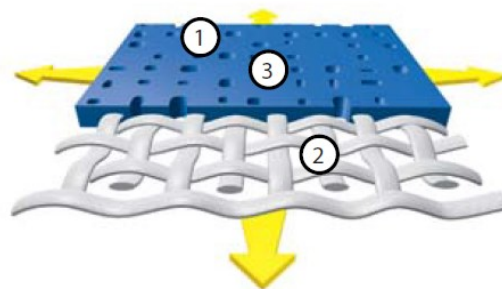
White 602



602-50020-98"

Cream 602

The Preconstraint 602 fabric from Ferrari offers excellent dimensional stability with minimal stretching and exceptional dirt resistance thanks to a PVDF topcoat on both sides. The fabric is therefore perfect for use on retractable Pergola® roof awnings. The fabric is 22.1 oz/sq yard with a Glossy finish. The two standard opaque colors above are the most commonly used and is standard on all Pergola® awnings. The two above colors are opaque and do not allow light to go through the fabric. Fabrics are Fire Retardant and certificate is available.



# OPTIONAL SCREEN FABRIC VINYL COLORS

## **502 PROOF SOLTIS / OPAQUE SATIN FINISH COLORS**

The Preconstraint 502 fabric from Ferrari also offers excellent dimensional stability with minimal stretching and exceptional dirt resistance thanks to a PVDF topcoat on both sides. The fabric is therefore perfect for use on retractable Pergola® roof awnings. The fabric is 16.8 oz/sq. yard with a satin finish. Fabrics are fire retardant and certificate is available.



satin finish

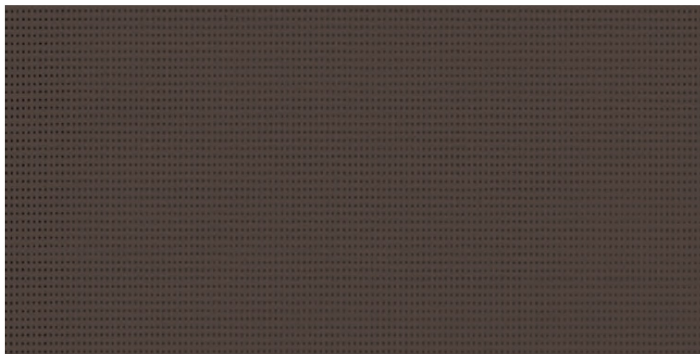
  
**Serge Ferrari**

**Soltis**  
Horizon 86

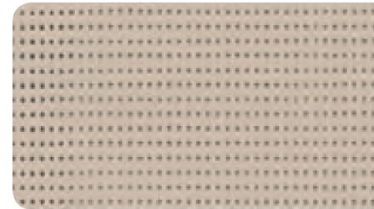
**Serge Ferrari**  
14 % Open Screen Mesh



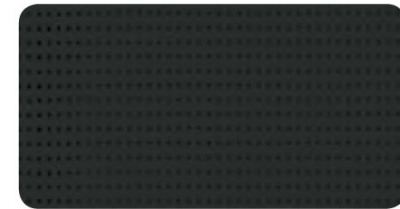
**Raso Screen**



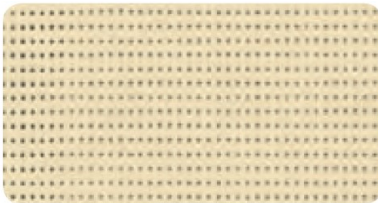
86-2043  
Bronze



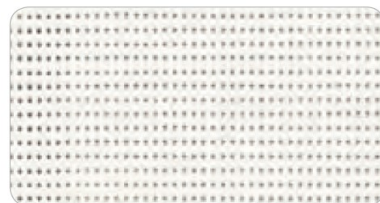
86 – 2135  
Sandy Beige



86 – 2053  
Black



86 – 2175  
Champagne



86 – 2044  
White



86 – 2012  
Pepper



86 – 2171  
Boulder

**■ Technical properties**

Openess factor	14%
Weight	380 g/m <sup>2</sup> — 11.2 oz/sqyd
Thickness	0.45 mm — 450 microns
Width	177 cm - 267 cm — 69.7 in. - 105.1 in.

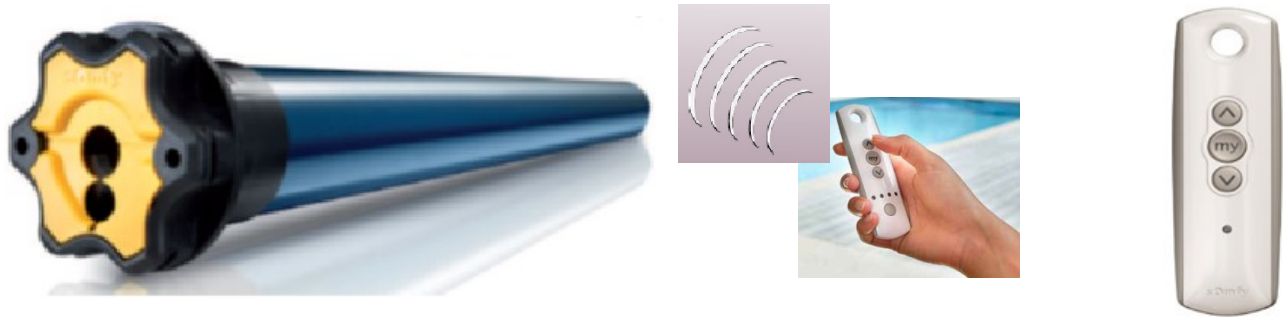
Superior elongation and tear resistance

No deformation during processing and use

Superior aesthetic and mechanical durability

Smooth finish easy to clean, space saving, easy rolling

# Screen motor for RASO & SC4500 zipper screens

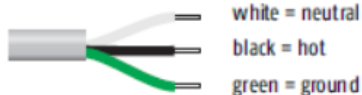


## SCREEN MOTORS:

The screens are available with the 525 altus SOMFY motor and also the 525 Maestria Obstacle detection motor. These motors are tubular 110 volt motors and are integrated into the Raso roller tube like a normal screen motor. Electrical wiring for the Raso screens is integrated within the gutter system and posts and all electrical connections are pre-wired within the Pergola system to one central connection point for all the electrical options and motors. The Maestria obstacle detection motor prevents fabric damage resulting from screen bunching and slipping from the guides. The motor senses and distinguishes between an actual obstacle and wind, even wind gusts, so it doesn't stop unnecessarily, resulting in fewer service calls and end user peace of mind.

### Type of cable

RTS  
120 V / 60 Hz  
3 conductor cable



**Note:** It is recommended to use a multi channel Telis 4 remote to operate multiple screens. The Screen motors use the same RTS motor as all Pergola models except the Louvered Pergola systems. The Louvered OPERA & VISION systems use a separate TELECO remote control to operate the Louvered 24 volt motor and LED's.

## Performances

525A2

Torque	25 Nm
Nominal Voltage	
Rated Current	1.6A
Speed	20 rpm
Thermal Protection	
Radio Frequency	433.42 MHz

# SCREEN AUTOMATION

ALTUS®



Note:

Opera and Vision Louvered systems uses a different Linak motor and remote.

The Sunair PERGOLA® program features SOMFY RTS motor with an integrated radio receiver that allows you to operate the screen by remote control with a wall mounted or hand held remote and by a smart phone device.

With a simple click of a button on your remote, the shade will lower or raise automatically.



1 through 16 channel wall mounted and hand held remotes are available



## SCREEN AUTOMATION continued



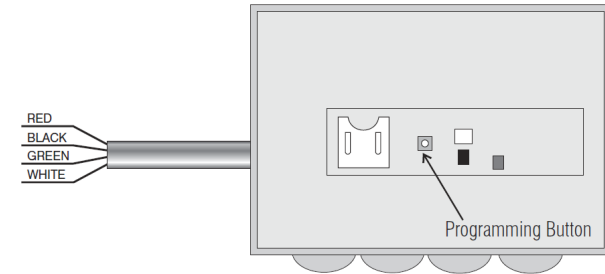
### SOLIRIS RTS 24V KIT Sun & Wind Sensor

The Soliris RTS Sun and Wind Sensor automatically controls your RTS motorized screen products based on current weather conditions.



### ONDEIS® WIREFREE Sun & Rain Sensor

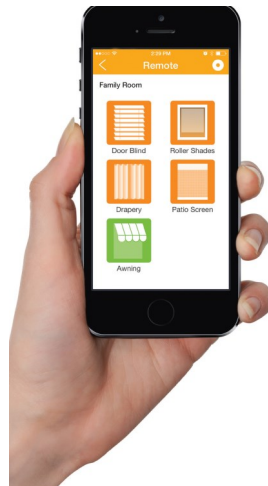
The Rain Sensor is a solar-powered combined rain and sun sensor compatible with Radio Technology Somfy® motorized exterior products, including screens.



### DRY CONTACT INPUT RTS TRANSMITTER

Dry Contact to RTS interface can be used to communicate between home automation or other third party systems like fire alarms to retract screens in an emergency. Can be interfaced with a physical switch.

The Somfy myLink™ is a simple device that turns your smartphone or tablet into a sophisticated remote control for motorized products featuring Radio Technology Somfy®, allowing you to operate them whether you're home or not. Combine all the benefits of Somfy's RTS hand-held remotes and timers in a convenient app.



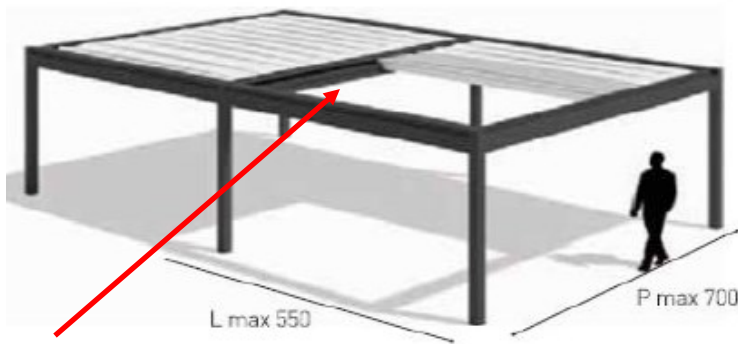


## FAN: Adding a fan to following models:

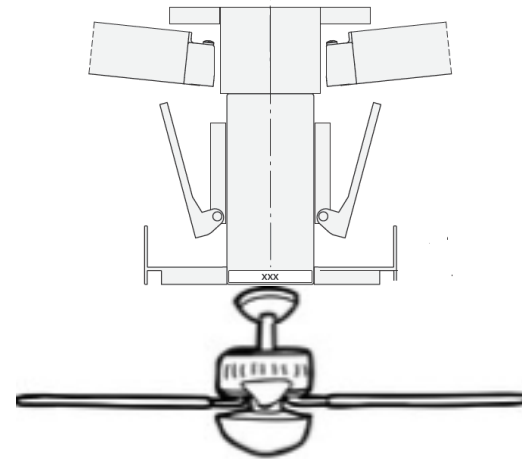
### **OPERA & VISION**

Fan not included and by customer

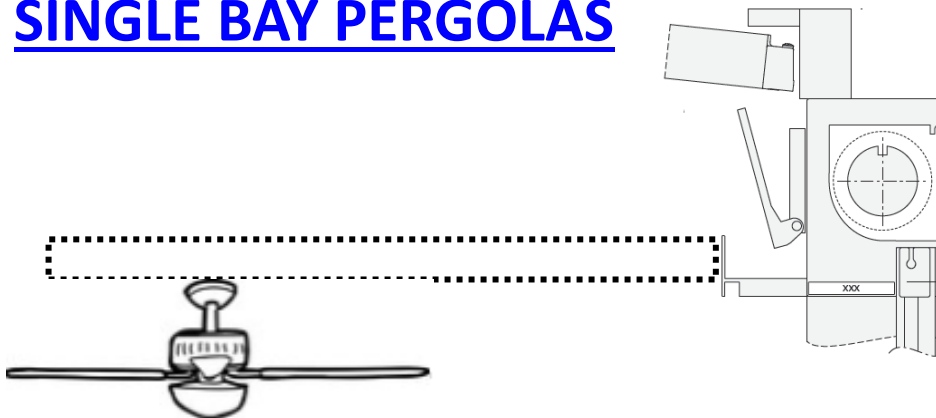
### MULTI MODULE PERGOLAS



Fan Can be mounted Here in between each module



### SINGLE BAY PERGOLAS



Mount a “Fan Bar” on the width side between gutters

Note: Max unit width 18 ft per module. Fan bar must run along the width of each module and separately wired.

**Solaira**<sup>®</sup>

**COSY**  
**SERIES**



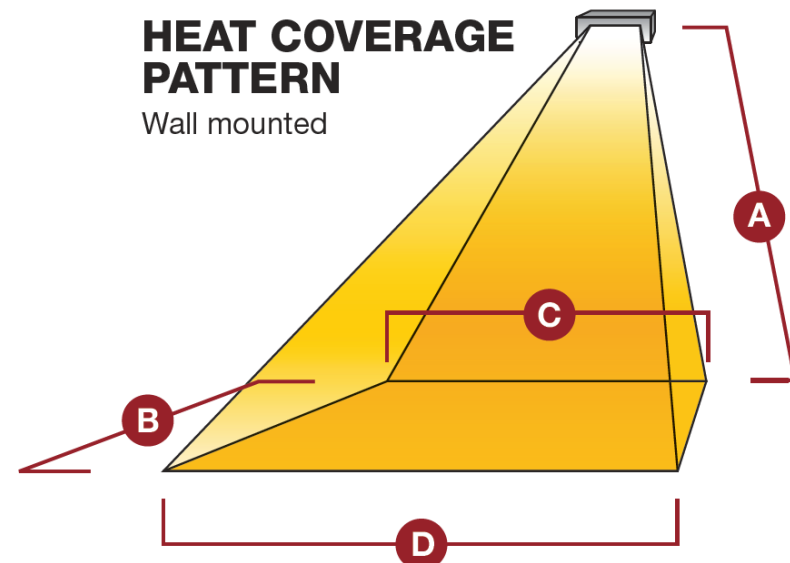
***HEATERS COSY SERIES 1500 AW Sleek, Low clearance, infrared***

Sunair<sup>®</sup> awnings do not specify any particular brand of heaters but we do offer the Solaira brand as a convenience and as “supply” only. As supply only all warranty is per the Manufacturer (Solaira). Please see separate manufacturers installation, use, servicing and warranty documents. Mounting and wiring the heaters on the Pergola units is not included and will be the responsibility of the dealer / customer in the field during installation. Check your local codes for correct wiring instructions. All heaters should be installed by a certified electrician to local state electrical codes. See separate manufacturer’s data sheet and wiring instructions. If you purchase your own heaters, make sure that the heater brand and model you chose can be installed within the pergola unit to code. Aluminum Brackets to install the heaters on the awning are sold separately. Note: Sunair<sup>®</sup> awnings can only make suggestions but will not be responsible or warranty the performance and the effectiveness of the heaters. Check with the manufacturer of the heaters for the recommended number of heaters for your application and best installation position of the heater for best results.

Con’t next page

# Solaria Heaters con't

**Note: Specifier / Customer must contact Solaira directly for recommended heater number and location.**



## HEAT COVERAGE EXAMPLES

Model	A	B	C	D	Heat Zone*	Heat Density*
SCOSYAW15120 B/W	6'7"	8'	8'	10'	70 SQ FT	18 WATTS/SQ. FT
SCOSYAW15240 B/W	6'7"	8'	8'	10'	70 SQ FT	18 WATTS/SQ. FT

\* Heat Zone and actual heat density will vary based on mounting height and angle of heater (Overhead mounted heat zones will be different then this guide). Please use this as a guideline only and contact Solaira for a more detailed specifier guide.

\* Heat Zone and actual heat density will vary based on mounting height and angle of heater (Overhead mounted zones will be different than this guide). Please use this as a guideline only and contact Solaira for a more detailed specifier guide.

Con't next page

## Solaria COZY Series Heaters con't

### 240 VOLT: 1.5Kw 208 - 240 V

Heater Model Black # SCOSYAW15240B Ral:9005

Heater Model White # SCOSYAW15240W Ral:9010

Controller #SPASCR90

One controller will operate up to 12 heaters

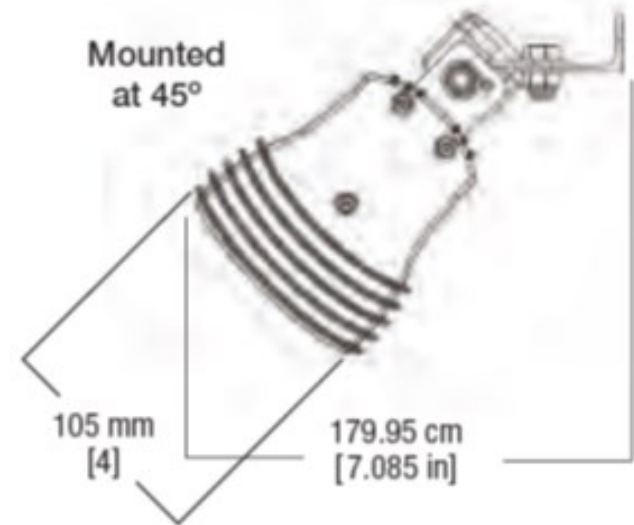
### 110 VOLT: 1.5Kw 120V

Heater Model Black # SCOSYAW15120B Ral: 9005

Heater Model White # SCOSYAW15120W Ral:9010

Controller #SPASCR90

One controller will operate up to 7 heaters



#### NOTE:

Maximum 7 ea. 110 volt heaters can be used per controller.

Maximum 12 ea. 240 volt heaters can be used per controller.



aura™

# INFRARED PATIO HEATER

ADVANCED LOW-LIGHT,  
LOW-GLARE CARBON FIBER  
EMITTER TECHNOLOGY



IP65 rated  
water resistant

AVAILABLE IN TWO MODELS

**CF3000** 3000W, 240V

**CF1500** 1500W, 120V

- Adjustable wall and ceiling mounting brackets included\*
- Durable extruded aluminum construction
- Virtually maintenance-free
- Instant heat, warm ambient glow
- Safe and odorless



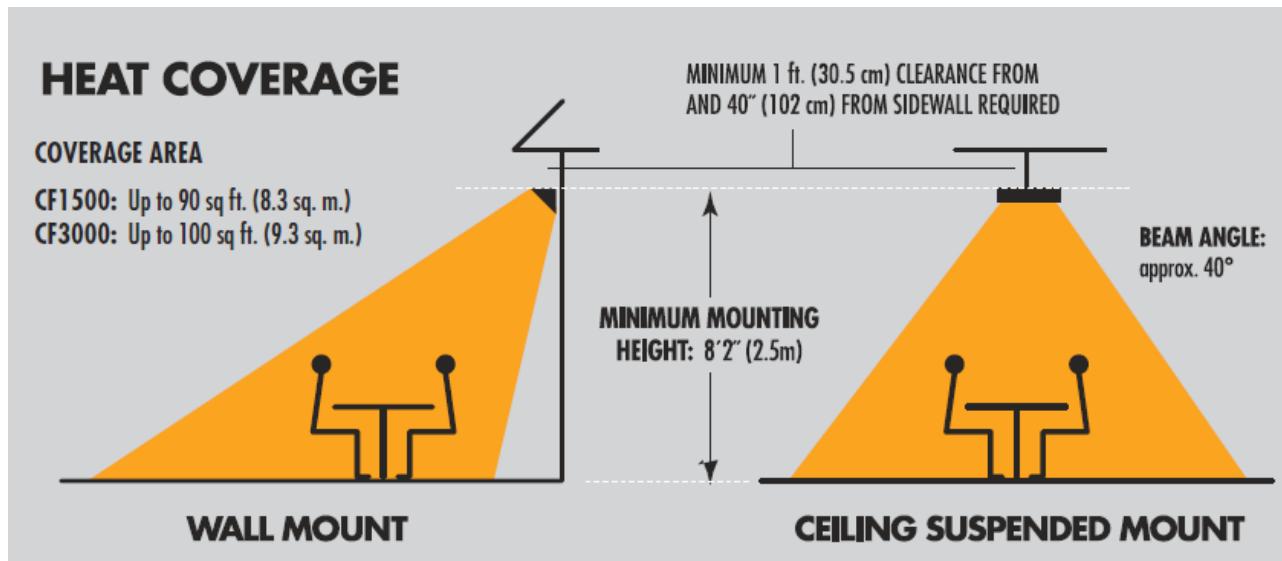
Includes convenient  
remote control



Wall and ceiling  
brackets included\*

AURA CF3000 Carbon 3000W BLACK 208 - 240 VOLT: **Model # CF302408**

AURA CF1500 Carbon 1500W BLACK 120 VOLT: **Model # CF151208**



**Note:**

**Specifier / Customer must contact Solaira directly for recommended heater number and location.**

## CARBON FIBER EMITTER

Aura Carbon Fiber emitter lamps are manufactured with extremely strong and lightweight woven carbon fibers. When energized, the carbon fiber produces a soft, ultra-fast warming medium/short wave infrared, radiant heat.

\*Heat Zone and actual heat density will vary based on mounting height and angle of heater (Overhead mounted zones will be different than this guide). Please use this as a guideline only and contact Solaira for a more detailed specifier guide.

**CF1500** WEIGHT: 10lbs (4.5kgs)

**CF3000** WEIGHT: 14.3 lbs. (6.5 kg)

**ETL** Intertek **RoHS** COMPLIANT **IP65**  
DUST, RAIN, WATER-JET PROOF  
 ÉTANÇHE À LA POUSSIERE, À LA PLUIE ET AUX JETS D'EAU  
 POLVO, LLUVIA, PRUEBA DE AGUA-JET

\* affixing hardware (screws/bolts/wall anchors not included and to be supplied by installer to suit application)

### REMOTE CONTROL

**RANGE: UP TO 19.5 ft. (6 m)**  
**INCLUDES ON/OFF BUTTONS WITH 6 HEAT SETTINGS:**  
**33% - 50% - 66%**  
**80% - 88% - 100%**

**REQUIRES 2x AAA, 1, 5V NOT INCLUDED**

The AURA heaters is a more economical heater that simply plugs in to an outlet (110 volt version). This heater does not require a control box. The remote control is included in the price. Simply aim the remote towards the heater and you can custom set the heat from 1 - 6 on heat scale.

### SPECIFICATIONS

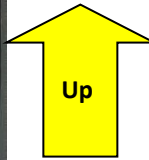
EXTRUDED ALUMINUM CONSTRUCTION

**INCLUDES: CEILING AND WALL MOUNT BRACKETS\*, REMOTE CONTROL, 12 ft. (4.87 m) OF cETLus APPROVED, OUTDOOR RATED CABLE**

**'ON/OFF' SWITCH ON DEVICE**

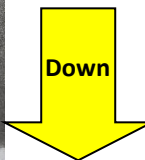
**W 6.5" (16.5cm)**  
**H 5.9" (14.9 cm)**

# UP & DOWN Glass Walls Options



*The Up & Down model is made up of two sections, one stationary and one mobile. A simple key is used to lock and release the module. To raise, release window with the key and the spring loaded module will slowly rise on its own.*

*Standard and custom widths available.*



**The Up and Down model of our glass window dividers can be customized to match your color scheme or even display your logo! The base aluminum colors are White and Iron Grey colors. Virtually any color and design graphic motifs can be added to the glass to showcase your restaurant's unique style. Other models are also available.**





# Installations



## SET FLOORING :

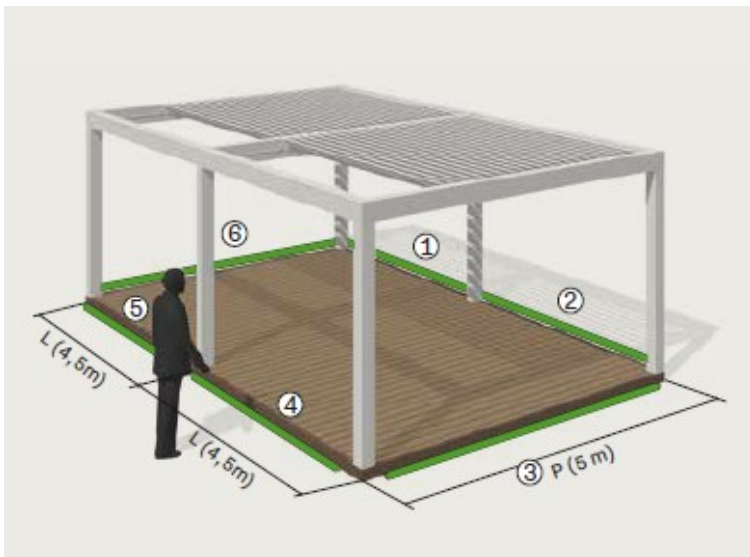


### PRODUCT FEATURES:

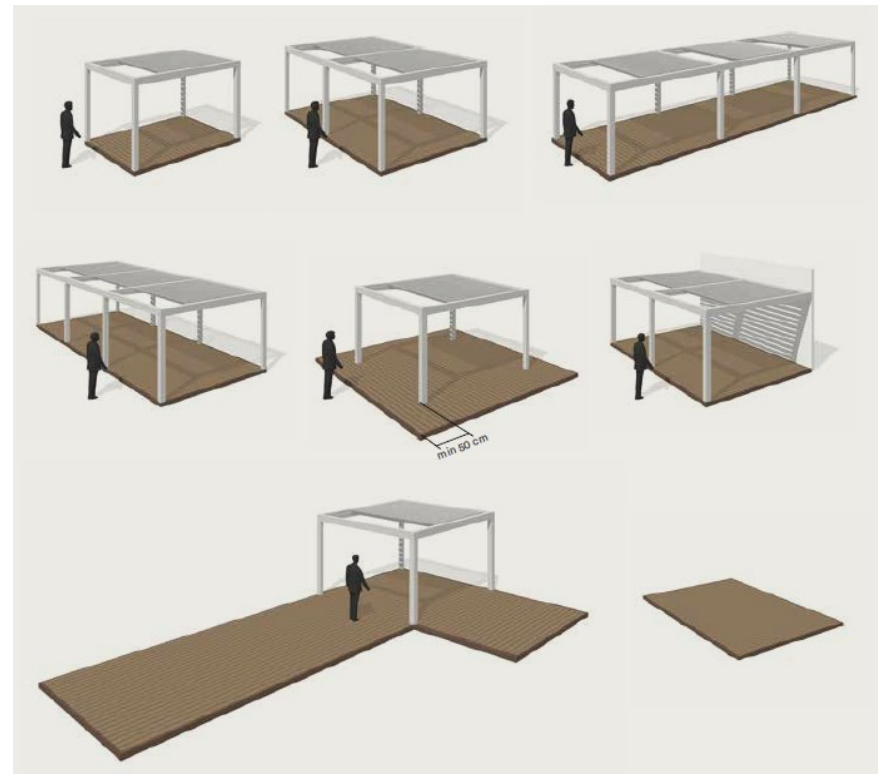
- Platform decking designed to be integrated with Bioclimatic Pergolas like Opera, Vision, Brera, Nomo, and Rialto.
- Sits on an existing supported concrete floor.
- Made to fit Pergola awning system.
- Assembled in place.
- Can be fitted with different flooring types.



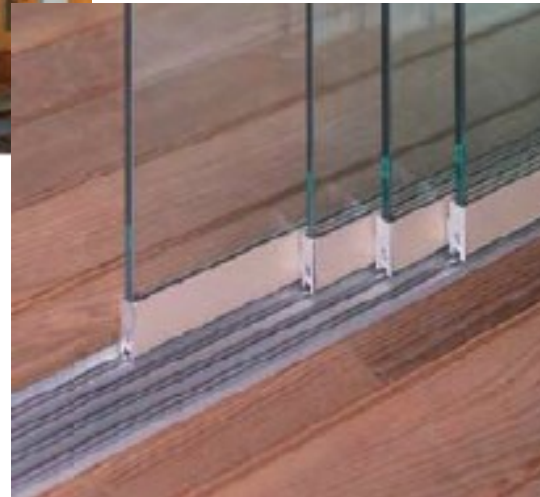
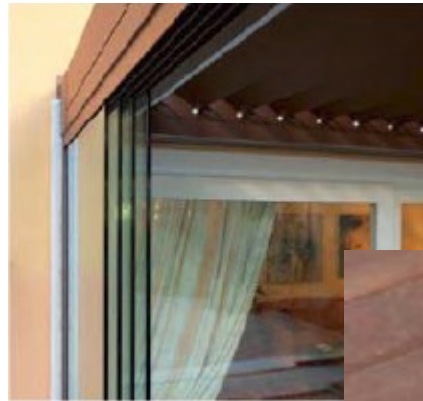
# SET FLOORING cont'



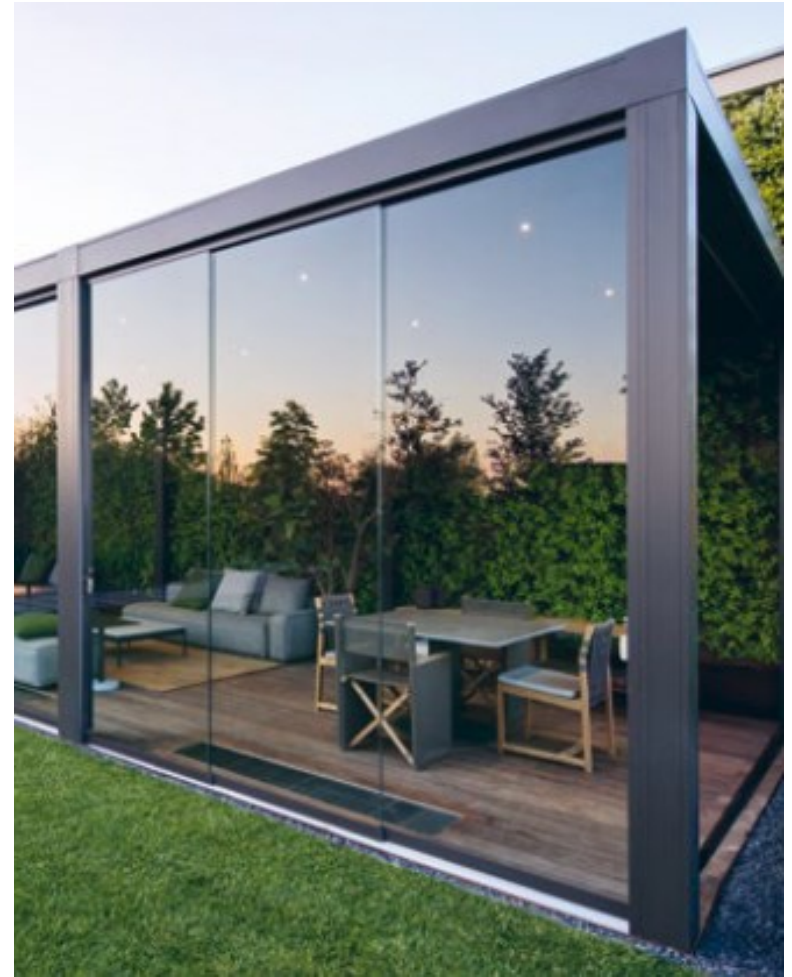
OPTIONAL: LED Lighting added



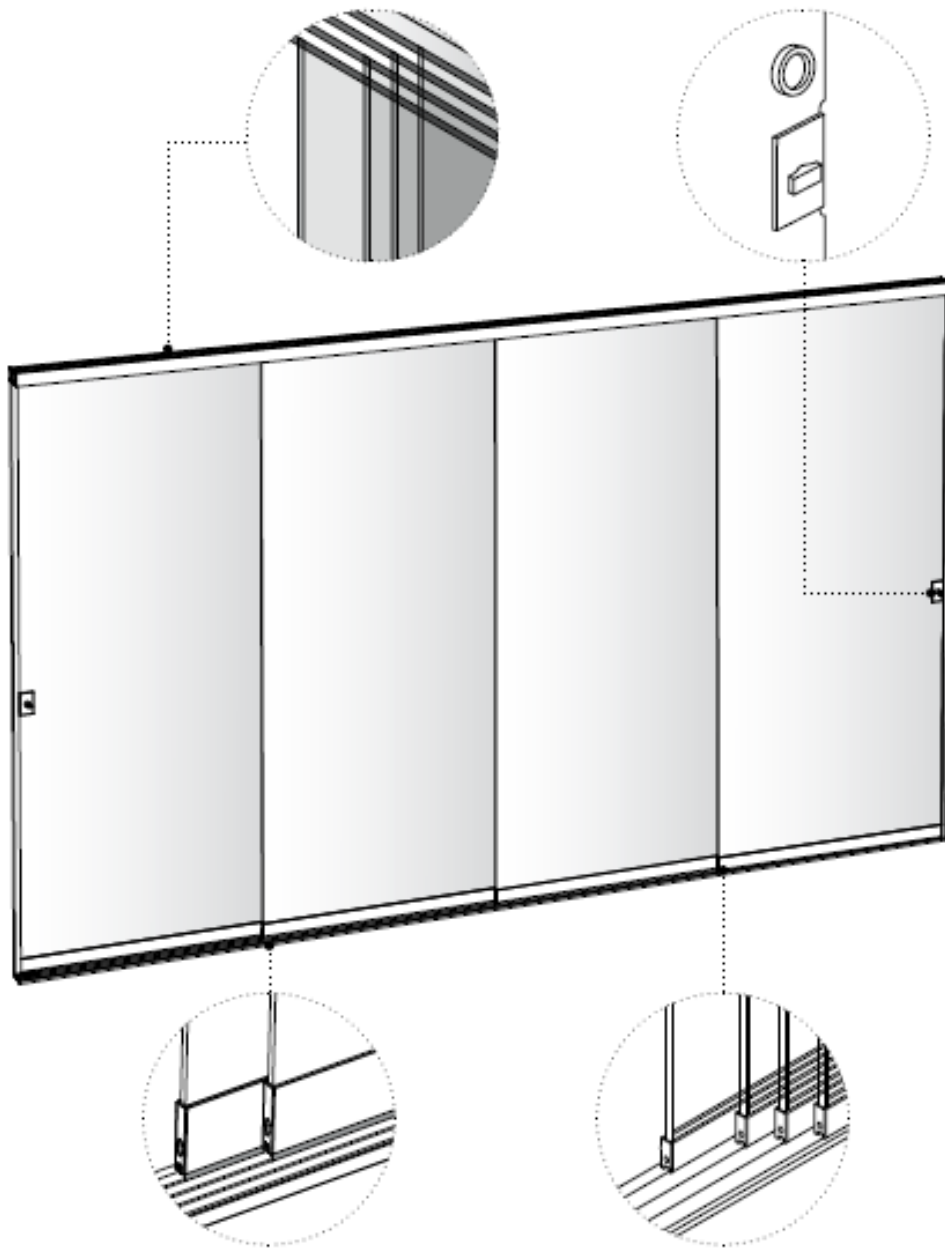
# SLIDE GLASS Options for Pergolas:



# More Installations

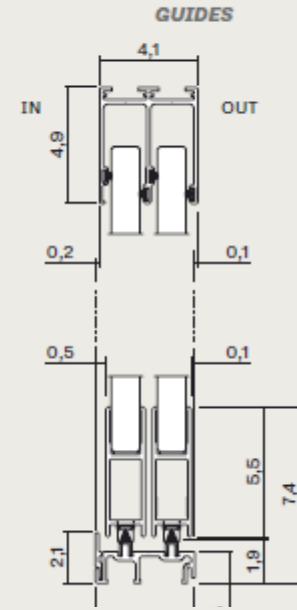
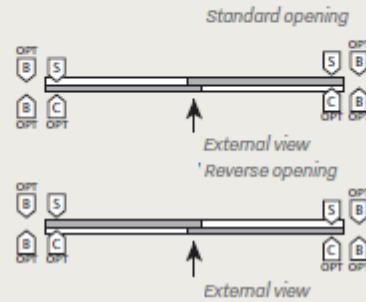
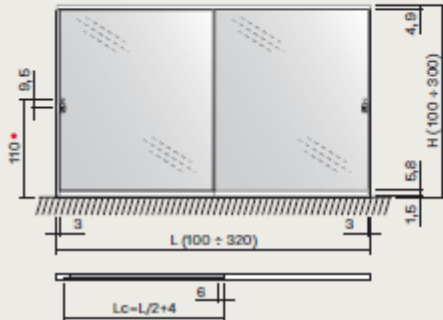


## PRODUCT FEATURES:



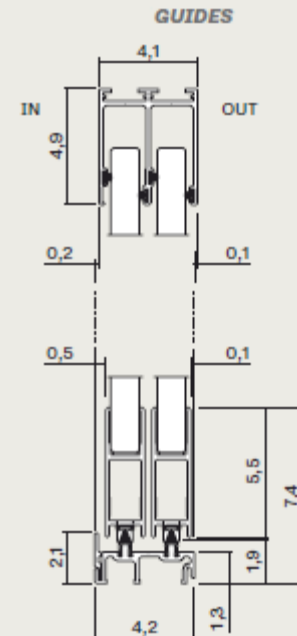
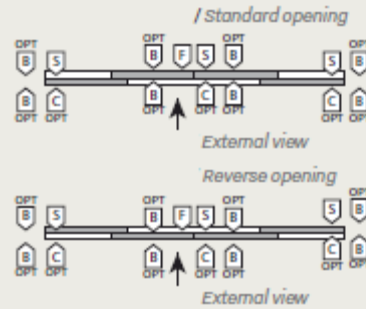
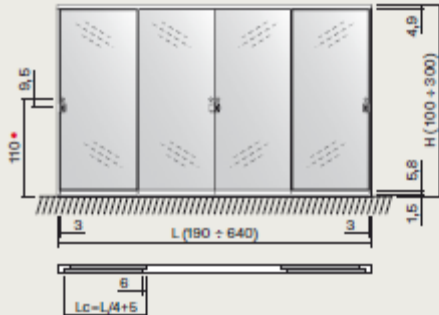
- Glass Panels with aluminum frame.
- Ideal for Bioclimatic Pergola (Rialto, Vision, and Brera S).
- Can be installed along with Raso screens on Nomo, Opera, and Brera P Pergolas also.
- Extruded aluminum Profiles.
- Stainless steel handles.
- Stainless steel trolleys with ball bearings.
- Tempered Glass 10 mm thick weighs 25 Kg. / sq./meter.
- Tempered Glass 12 mm thick weighs 30 Kg. / sq./meter.
- Two, Three, or Four way sections.
- Max Length 700cm depending on number of glass sections.
- 10mm glass available up to 250 cm High doors.
- 12mm glass available from 260 cm to 300 cm high doors.
- Lead time is longer if slide glass is added.

## 2 ways - 2 doors



H standard of the closing "S" handle (min. H 25 cm)

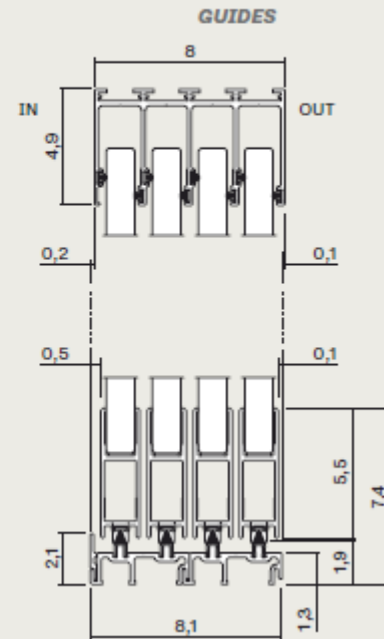
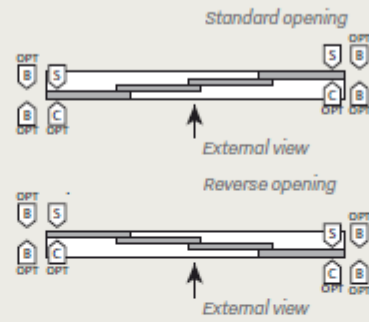
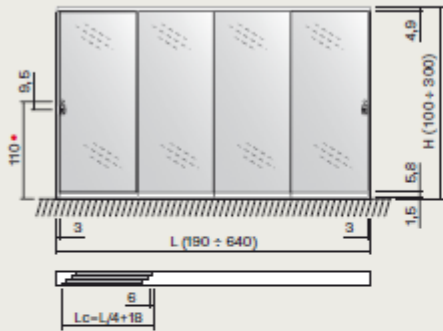
## 2 ways - 4 doors



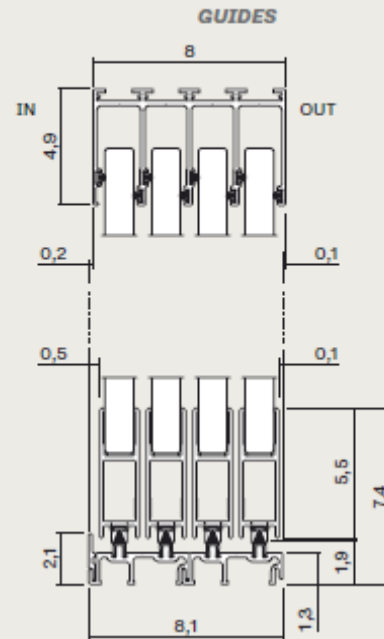
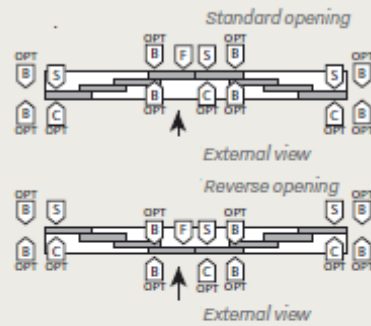
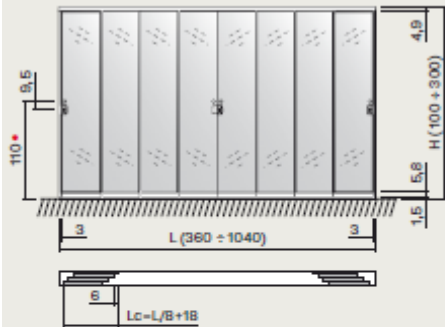




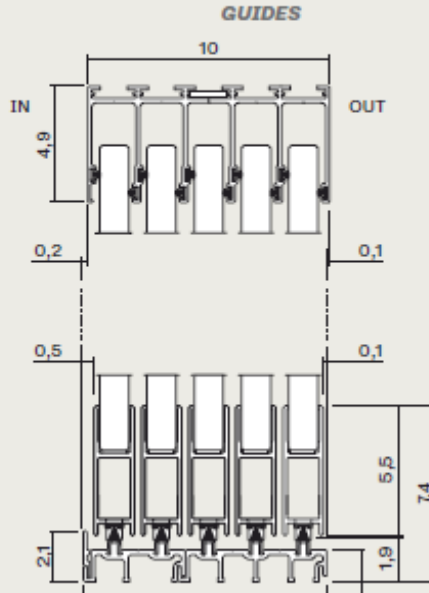
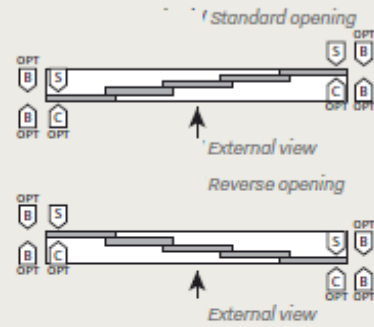
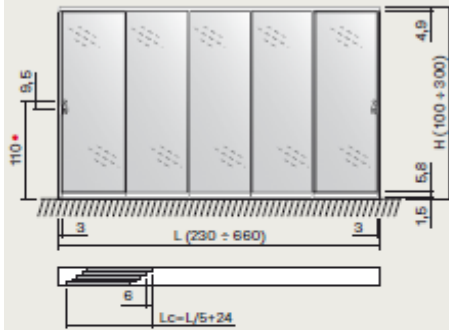
## 4 ways - 4 doors



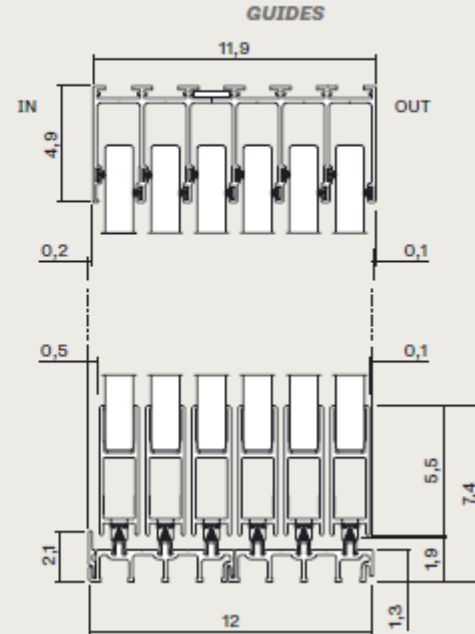
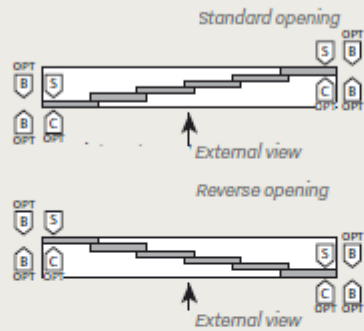
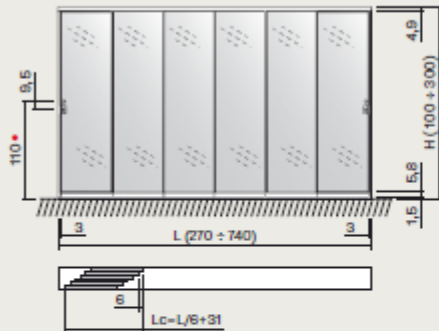
## 4 ways - 8 doors



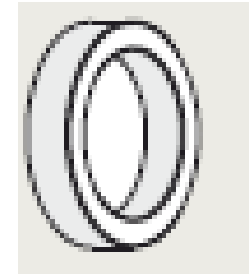
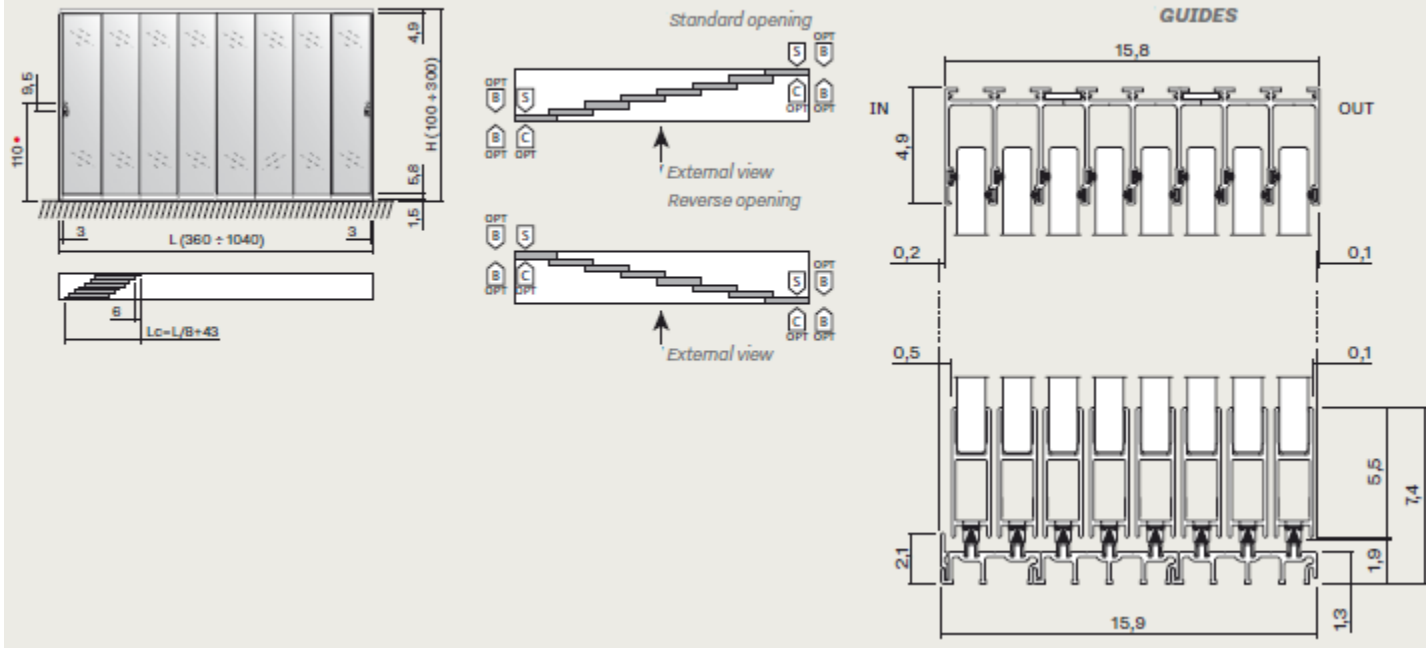
## 5 ways - 5 doors



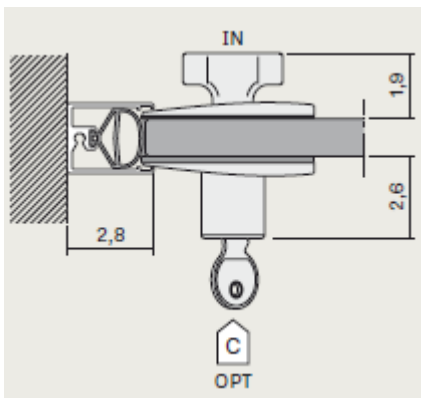
## 6 ways - 6 doors



## 8 ways - 8 doors



**Driving Handle Disk**

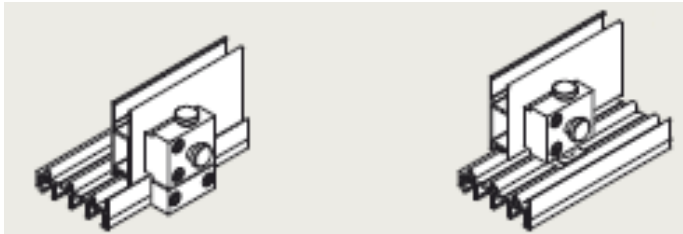


**External Key Locks**

Not compatible with Raso Screens.

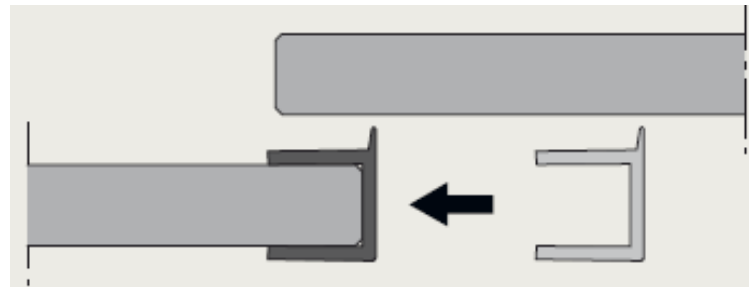
Each Lock has a key.

Door stop on bottom of floor track



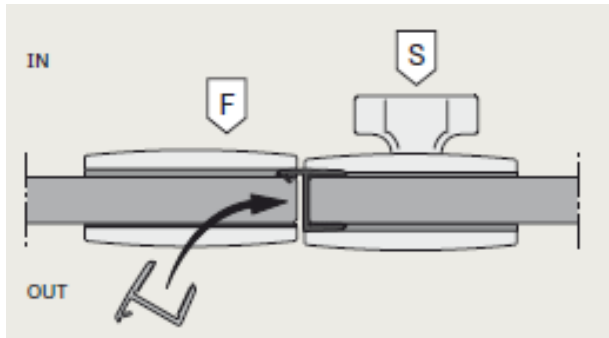
Guide side installation

Installation between Tracks



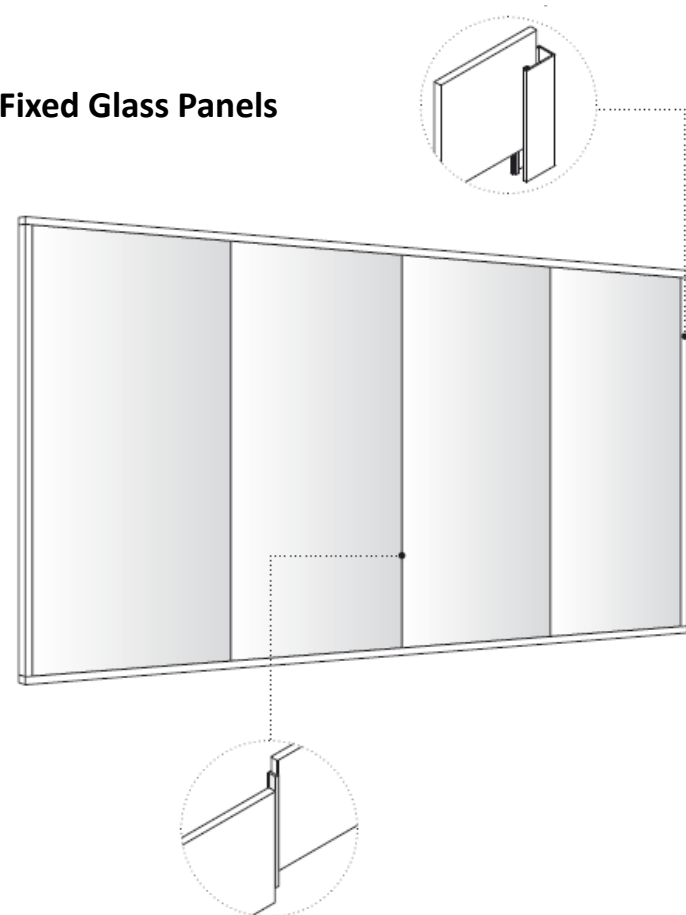
Vertical Gasket Seal:

For overlapping Doors



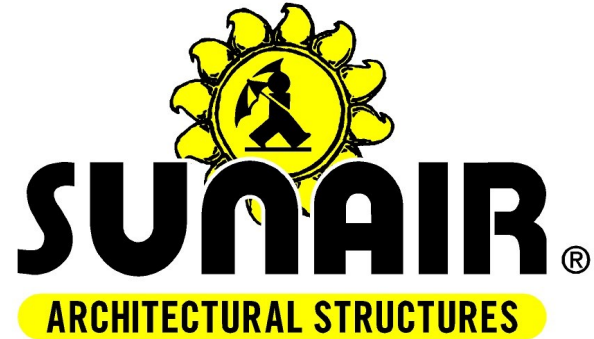
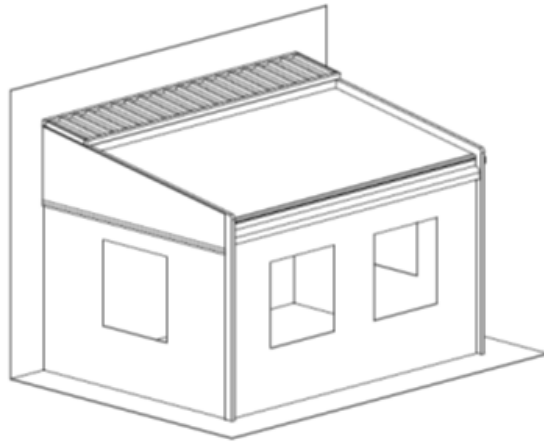
Door Seal

Optional Fixed Glass Panels



NOTES:

**Note: Sunair® reserves the right to change engineering, specifications and prices without notice. Images and Illustrations in the catalog may vary from digital and printed manuals. Sunair® is not responsible for printed inaccuracies in this manual.**



***SUNPROOFING AMERICA!***



**MARYLAND LOCATION**

Mailing: P.O. Box 1068

Shipping: 7785 Rt. 175

Jessup, MD 20794

**Toll Free 800 - 548 - 0408**

**Phone: 410 - 799 - 1145**

**Fax: 410 - 799 - 5584**

**ARIZONA LOCATION**

Mailing: Same as Jessup

Shipping: 3807 West Thomas Rd.

Phoenix, AZ 85017

**Toll Free 877 - 272 - 3920**

**Phone: 602 - 272 - 3920**

**Fax: 602 - 272 - 3925**

**[www.sunairawnings.com](http://www.sunairawnings.com)**

**[info@sunairawnings.com](mailto:info@sunairawnings.com)**