



# TECHNICAL SHEET



## PERGOLAM MEGA

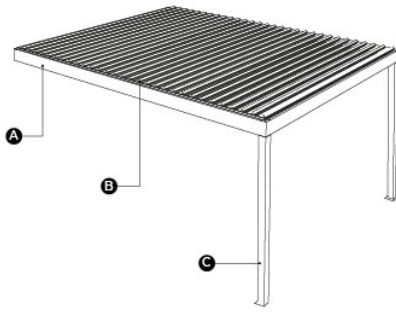
Pergolam is a bioclimatic pergola constructed entirely from aluminum profiles. Its 38cm wide slats allow light and breeze to pass through when opened, creating a greater sense of openness. Its continuous or step-by-step rotation system allows for 0°, 50°, 100°, and 150° rotation. When closed, it is completely airtight, preventing the passage of light and water. All components are assembled using a sophisticated connection system with stainless steel parts, high-strength nylon, and specially designed aluminum profiles to ensure that no screws or cables are visible.

It guarantees great resistance to strong weather changes and winds of up to 200 km/h, in addition to resistance to snow, being able to support the weight of a 50 cm high layer of fresh snow at its greatest extension. In order not to lose the guarantee, this snow must be removed fresh or when it melts, or failing that, the Pergolam will have to be equipped with a heating system that will melt the snow, preventing it from accumulating and freezing.

### TECHNICAL CHARACTERISTICS

- Structure made of 6065-T5 aluminum profiles
- Lacquered finish with electrostatic powder paint or anodized.
- Stainless steel screws and fasteners.
- Can cover up to 56 m<sup>2</sup> per double module
- Slat slope between 0.5 and 1.5%.
- Resistant to winds up to 12 on the Beaufort scale.
- 24V 1600 N/m telescopic motor.
- RTS remote control, motor and lighting, option via cell phone.
- All our products are ALL SEASONS™.

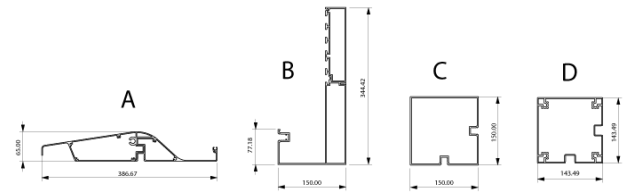




### HORIZONTAL DESIGN

TO	Channel Beam
B	LAMAS
C	POST
D	NOT APPLICABLE
AND	NOT APPLICABLE

These are the profiles whose function is to serve as a rail for the carriages that deploy the blades to move through.

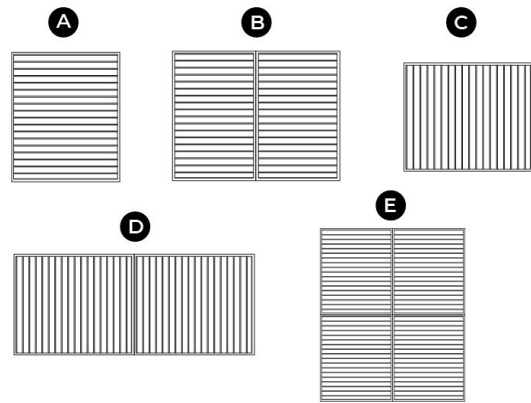


A. LAMA	65 X 386
B. CHANNEL BEAM	150 X 344
C. SOUL PROFILE	143 X 143
Mr. Post	150 X 150

LINE		
SIMPLE	DOUBLE	EXIT
2,5 to 5,5	5,5 to 7,0	2,5 to 8

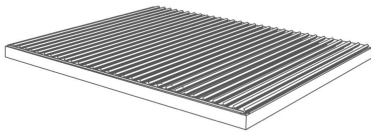
Our standard product withstands speeds of up to 200 km/h at its longest length (5,5 m x 8 m for single) or (7 m x 8 m for double); except for the guyed installation type, which has a maximum extension of 6 m.

- A)** Single vertical module: 8m x 5,5m
- B)** Double module: 8m x 7m
- C)** Single horizontal module: 5,5 mx 8 m
- D)** 2 simple modules: 5,5 m x 16 m
- E)** 4 Simple modules: 16 mx 11



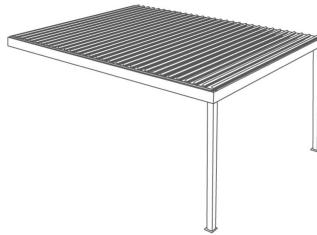
### BETWEEN WALLS

As its name indicates, the structure is installed between two walls.



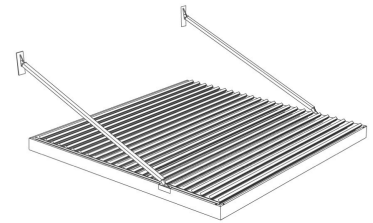
### WITH POSTS

Structure supported by two or more pillars and anchored to a wall or surface capable of supporting the weight of the structure.



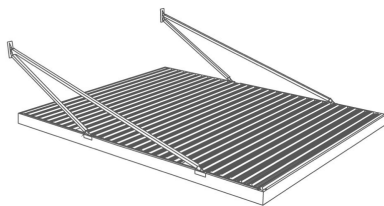
### SINGLE TENSIONER

Structure supported on the wall with tensioners anchored to it, projection up to 4.5 requires tensioner per single rail.



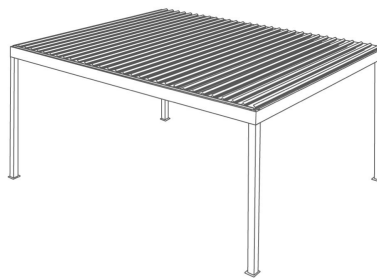
### DOUBLE TENSIONER

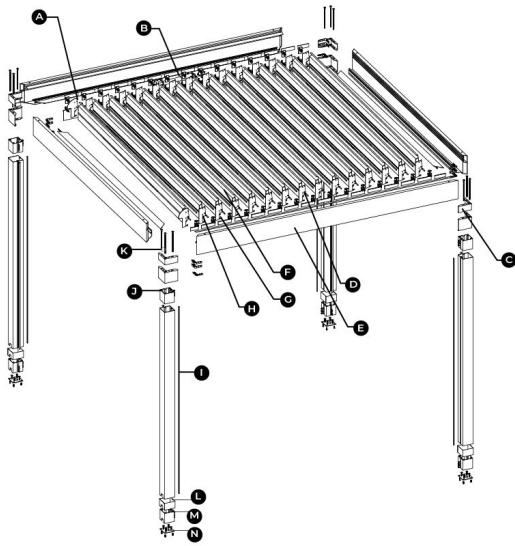
Structure supported by wall-mounted tensioners. Projections up to 4.5 meters require a tensioner per rail; projections up to 6 meters require a double tensioner.



### Gazebo

Structure supported on four posts at the corners of the structure.

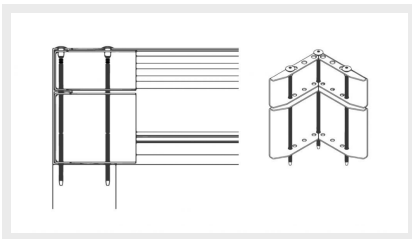




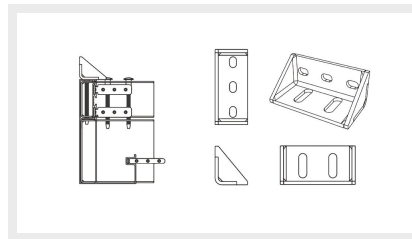
- A)** Transmission blade
- B)** Telescopic motor
- C)** Connection frames
- D)** Blade drive shaft
- E)** Perimeter frame profile
- F)** Blade profile
- G)** Blade cover
- H)** Blade rotation axis
- I)** Pillar
- J)** Deco
- K)** Alma post
- L)** Motherboard
- M)** Alma post
- N)** Connecting screws

TYPES OF ANCHORING

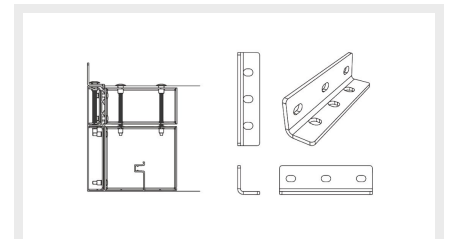
**FIXING THE POST TO THE STRUCTURE**

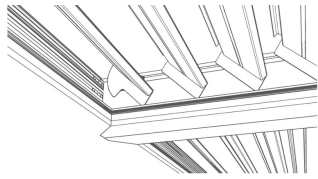


**CORNER FIXTURE OF STRUCTURE TO WALL**

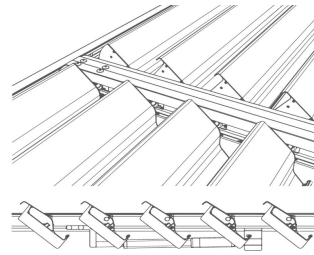


**INTERMEDIATE FASTENER OF STRUCTURE TO WALL**





The Pergolam has a perimeter channeling system designed to evacuate large amounts of water. In the event of rain, these are collected in the pergola's channel and directed to its posts. Likewise, if a more directed evacuation of the collected water is desired, PVC pipe or chains must be adapted for drainage.

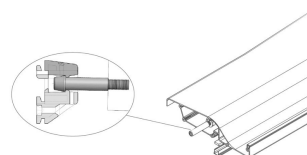


Pergolam features slatted profiles, which function as small channels that direct water to the channel beam. These profiles have a waterproof seal thanks to their overlapping system and a hermetic seal produced by a silicone profile specially designed for this purpose. This silicone withstands high temperatures and prevents the gasket from adhering to the other slats, which could affect the pergola's opening in the event of strong sunlight.

**Lama Slope (0.6 – 1.5%)**



Pergolam features a sloping water channeling system through its slat profile and channel, making it much more efficient and preventing water from pooling in the slats. It's also important to consider that water may fall when opening and operating the slats after a recent rainstorm.



Our patented anti-seismic axes act as a protective mechanism, preventing the slats from disconnecting in the event of strong winds and seismic movements.

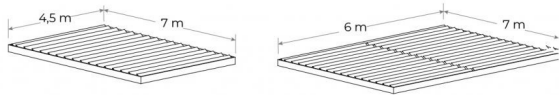



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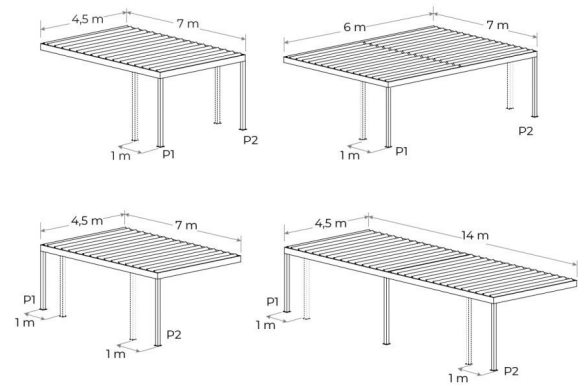
SETTINGS

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**BETWEEN WALLS**

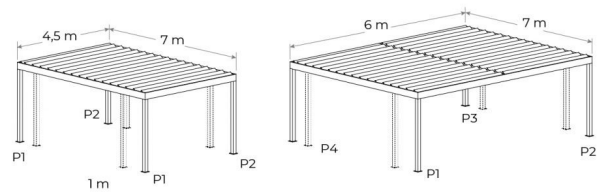


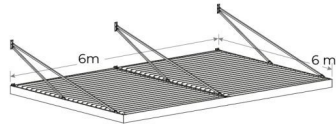
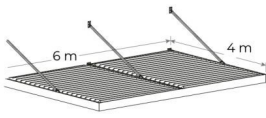
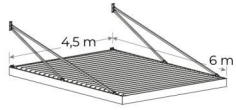
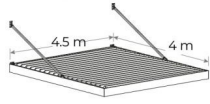
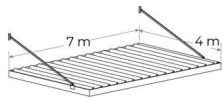
**WITH POSTS**



**WITH TENSIONERS**

**Gazebo**

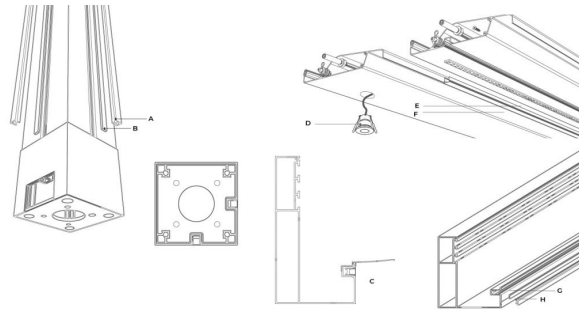




**WHITE LED LIGHTING**

**RGB – RGBW LIGHTING**

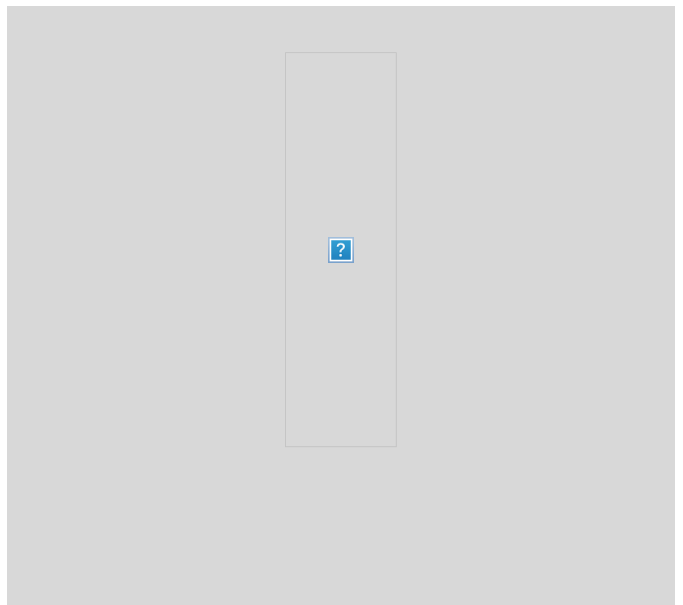
It features an LED lighting system that can be installed in the ribbed profiles to illuminate the roof. This can be done using LED strips or SPOTS bulbs. It can be installed on the front and rear beams to achieve perimeter lighting, and also on the posts, which can be distributed in independent circuits. Thanks to the design of the translucent diffuser profile, we can achieve continuous lines of light, giving an elegant and modern finish. The lighting can be white, RGB, or RGBW, which allows the light color to be changed.



TO	DIFFUSER PROFILE
B	LED STRIP
C	RAIL
D	SPOT
AND	LED STRIP
F	DIFFUSER PROFILE
G	LED STRIP
H	DIFFUSER PROFILE



The Pergolam operates the slat opening degrees by means of a 24 V 1600 N/m telescopic motor.



**REMOTE CONTROL:** Controls up to 15 motors, allows dimming, color change, turning on and off up to 4 cover circuits and turning on the lighting.



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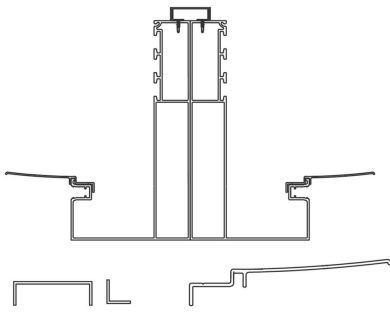
ADVANTAGES

**CHANNEL BEAM OVERLAP**

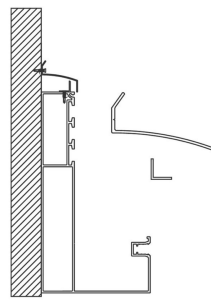
**FLAP TO WALL**

**Channel bib**

At Pergolam, we offer the gutter bib accessory, which protects the covered area from potential water splashes caused by rainwater bouncing off the gutter.



It is possible to place two Pergolam rails together to achieve longer covering lengths. For this purpose, we have a joining system based on a double-entry receiving shaft, which allows both rails to be screwed together with a single bolt to avoid gaps caused by the thickness of the screw heads. At the top joint between the two rails, we have three overlapping profiles to prevent water infiltration at the joint. These profiles consist of two angles and a U-shaped profile.



We have cases in which the pergola can be boxed in by side walls, and for this we must waterproof the entry of water laterally, for this reason we have designed the profile overlap to wall in order to cover this opening without having to join the flap directly to the rail, avoiding the silicone from coming off due to the normal movement of the pergola, for this union we use an overlap to wall profile and an angle in aluminum.



**TOSCANA DYNAMIC APP**



Our app is available on the Google Playstore and Appstore for Android and iOS devices. With this app, you'll have access to a world of possibilities for configuring your environments. Our exclusive Toscana Dynamic device is FCC and CE certified.

**GOOGLE HOME AND ALEXA ASSISTANTS**



Control your pergola with voice commands using Google Home and Amazon Alexa.

**REMOTE CONTROL**



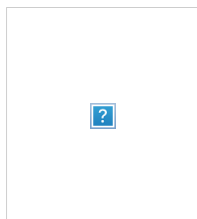
In the event of an internet outage, the pergola can be controlled via remote control. Multiple Toscana Dynamics can be operated with a single remote.

**PUSH BUTTON CONTROL**



In the event of an internet or radio frequency failure, there is the option of connecting a push button to open and close the pergola.

**WEB (QR)**



**LIGHTNING**



It works to give you complete control of your pergola without having to download the app to your mobile device or computer.

Up to 4 pergola lighting channels can be managed, allowing for switching on, off, dimming, and color selection of W, RGB, RGBW, and spot lights.

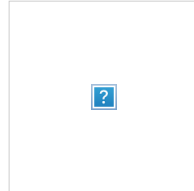


### OTHER HOME AUTOMATION



The Smart Hub Toscana Dynamic can be connected to any other home automation system available on the market.

### SCENARIOS



Create different scenes by mixing all the pergola options, defining how, when, and for how long.

### MOTORIZATION



You can control the opening and closing of the entire pergola, as well as the perimeter fences if the client so desires.

### VIDEO



You can connect any IP video camera and view it through our app.

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### SENSORS





## WEATHER STATION

It includes an anemometer, rain gauge, hygrometer, wind direction indicator, and power supply via a solar panel with a backup battery in case atmospheric conditions prevent solar charging.

## SENSORS

The protection system includes temperature and belt breakage sensors, preventing mechanical failures that could damage the pergola. Optionally, the customer can add specialized sensors, allowing for greater protection in extreme weather conditions.



## SNOW SENSOR

It allows you to determine the height of the snow in millimeters above the pergola. In addition, in the app, you can review the historical record of how long it lasted and when it fell.



## SMOKE DETECTOR

An alarm that detects the presence of smoke in the air and emits an acoustic signal warning of a fire hazard. It works via RF.

## TUSCANY STRUCTURE



With our Toscana Structure app, we can design and calculate the ideal pergola in minutes, with the wind and snow loads desired by the client. It will also automatically provide the technical specifications for the concrete base to be cast to secure the posts to the ground.

1 mm of precipitation is equivalent to 1 (L/m<sup>2</sup>). If you have a weather station, if rainfall exceeds 40 mm/h, the pergola's channel could overflow and cause flooding inside.



## PRODUCT RATING ACCORDING TO PRECIPITATION

## PRODUCT RATING ACCORDING TO WIND RESISTANCE

COLO R	INTES. (mm/h)	TYPE OF PRECIPITATION	PRODUCT RATING
●	Greater than 250	Large hail	
●	Greater than 250	Torrential and hail	
●	100 to 250	Torrential and probable hail	
●	40 to 100	Very heavy to torrential rain	
●	16 to 40	Heavy rain	<b>Suitable</b>
●	6.5 to 16	Moderate rain	
●	2.5 to 6.5	Light rain	
●	1 to 2.5	Light rain	
●	0.4 to 1	Very light rain	
●	0.1 to 0.4	Precipitation trace	

TO	B	C	D	AND	F
●	>6	12	Hurricane	118 +	
●	>6	11	Storm	103 / 117	
●	>6	10	Storm	89 / 102	
●	>6	9	Temporary	75 / 88	<b>Suitable</b>
●	5	8	Very hard	62 / 74	
●	4	7	Hard	50 / 61	
●	3	6	Strong	39 / 49	
●	2	5	Cool	29 / 38	
●	1	4	Good-natured	20 / 28	
●	0	3	Mild	12/19	
●	0	3	Weak	6 / 11	
●	0	3	Ventolin	1 / 5	
●	0	3	Calm	0 / 1	

A) Wind resistance according to standard 13561

C) Beaufort scale

D) Wind

E) Km/h

F) Product rating