

METAFORM SHADING SYSTEMS



TECHNICAL MANUAL

ARCH

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metaform shading systems



Pergola **Arch**

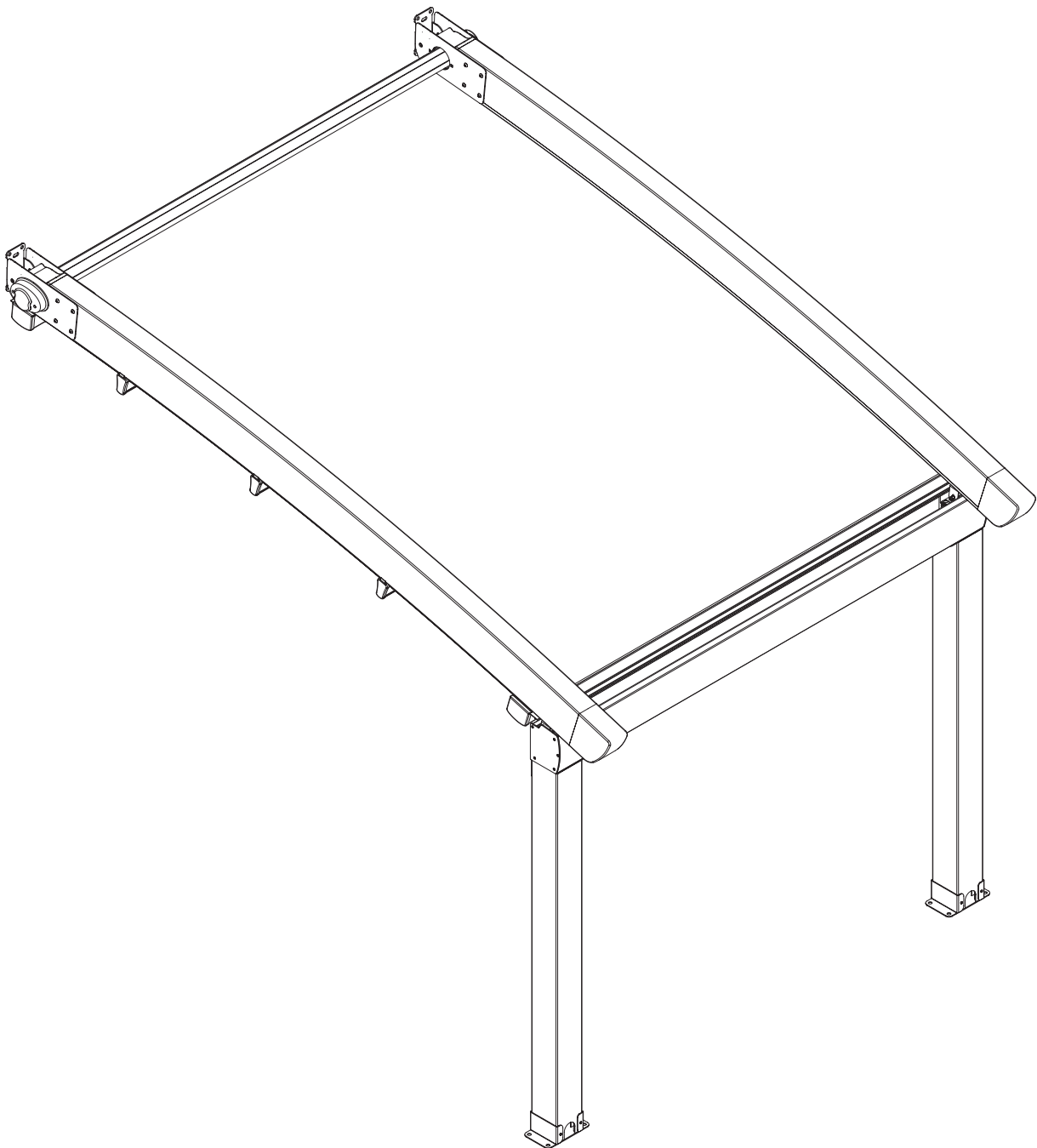
General image of Arch pergola	6
Profile cross-sections	7
Pergola dimensions	8
Support choices (Wall / Roof)	10
Counterweight depth choices	11
Pergola with a 120x100 star parapet	12
Pergola with a 160x140 magna parapet	14
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Pergola Arch

General view of the pergola.

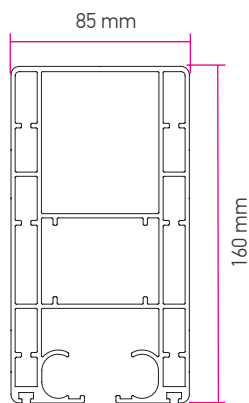
Metaform's SA expertise and originality brought up pergola Arch, an excellent solution for covering and shading exterior.

With arched and impeccable design, is the most appropriate pergola for radius applications as well as large projections.

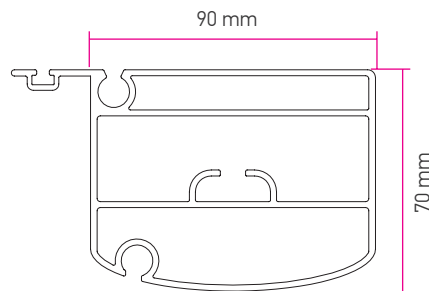


Pergola Arch

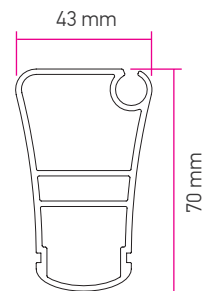
Profile cross-sections.



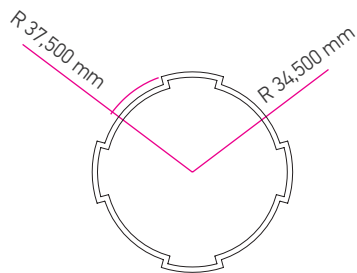
1 rafter 85X160



2 wide counterweight 90X70



3 narrow counterweight 43x70

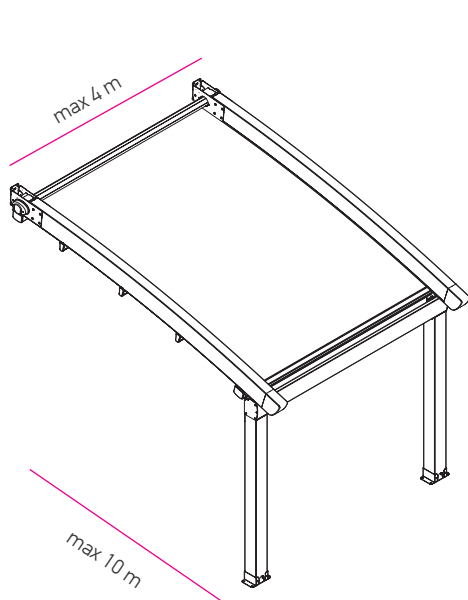


4 tube
(not shown in diagram)

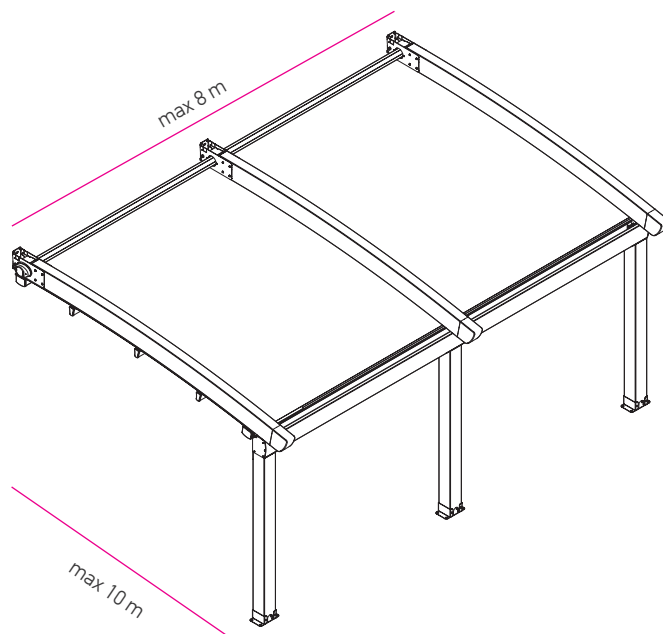
You can choose between counterweights 2-3-4 and 6-7-8.

Pergola Arch

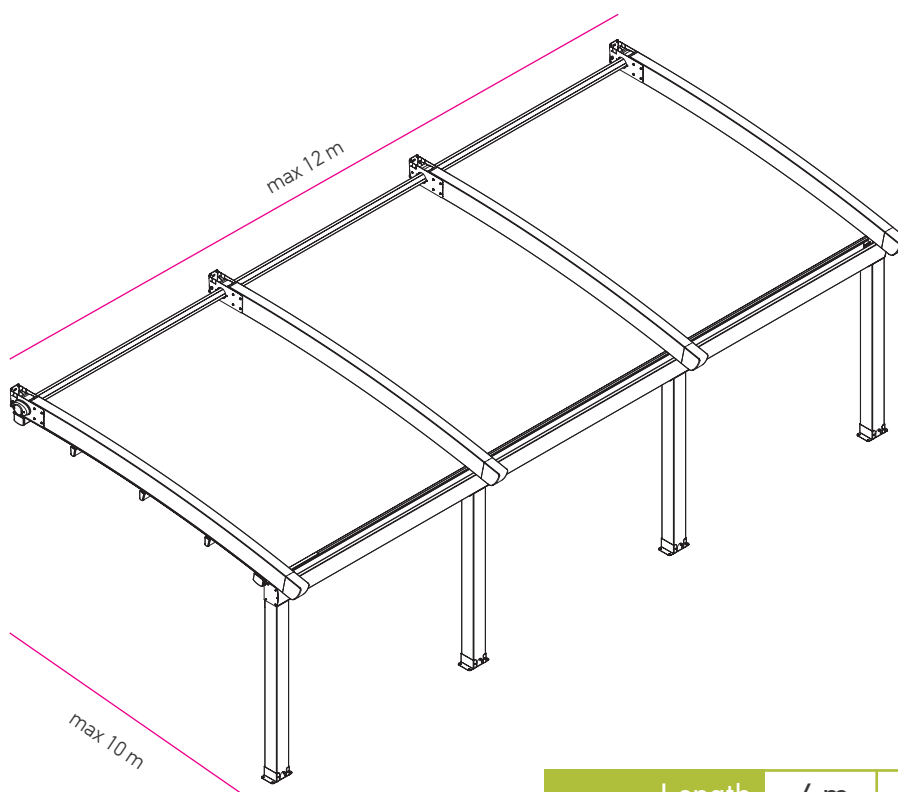
Maximum pergola projection & maximum rafter distance with 43x70 & 90x70 counterweights.



2 rafters



3 rafters

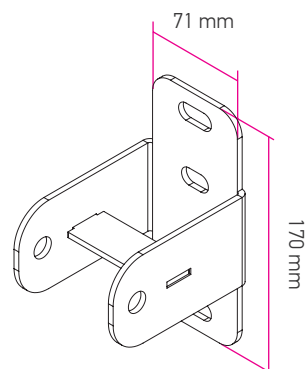
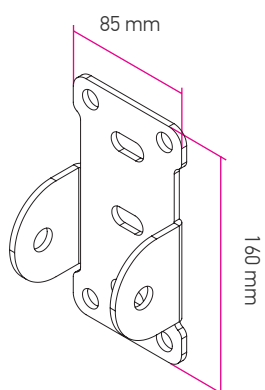
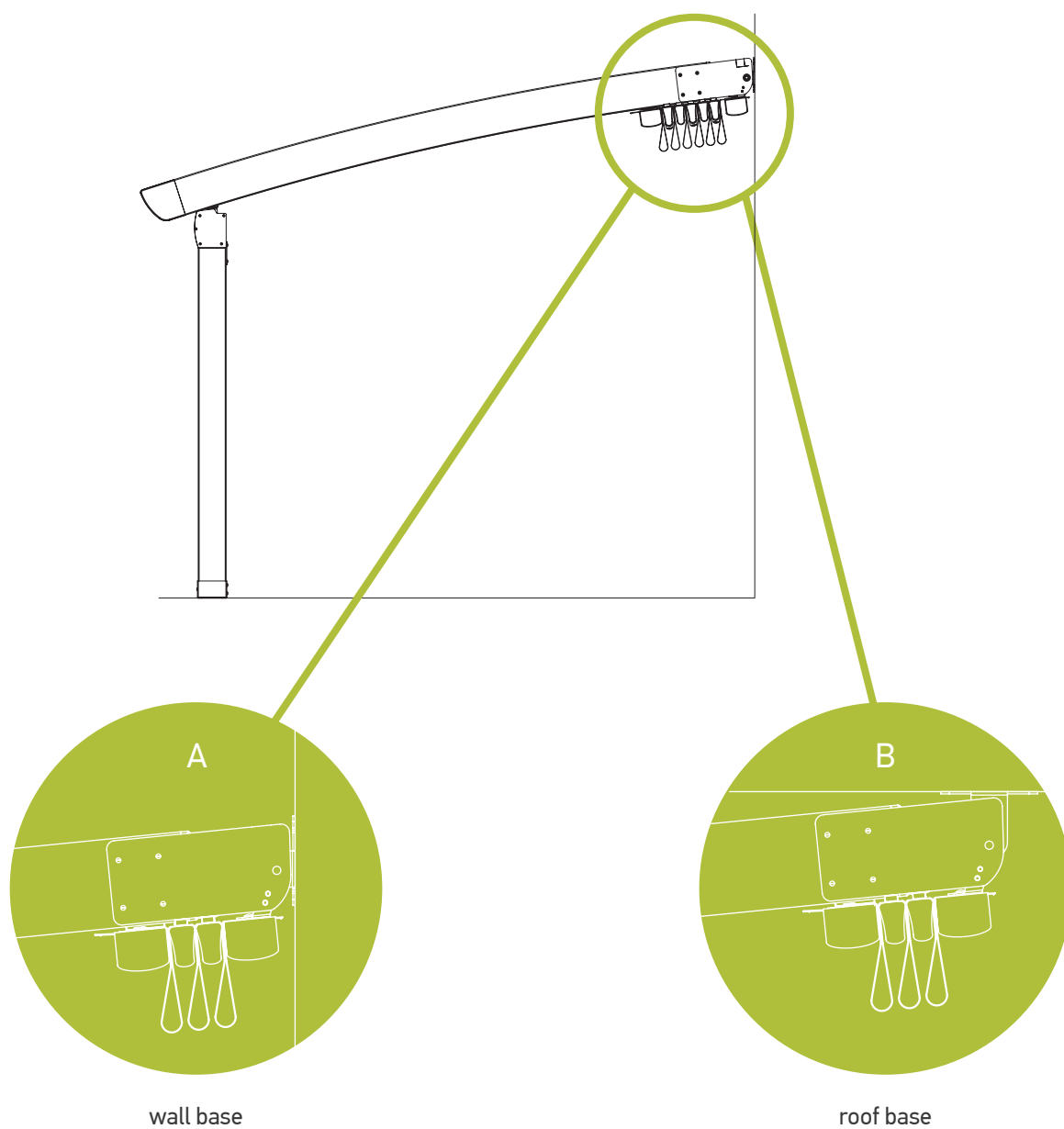


4 rafters

Length	4 m	8 m	12 m	16 m	20 m
Rafters (pc)	2 pcs	3 pcs	4 pcs	5 pcs	6 pcs
Max Projection	10 m	10 m	10 m	7,5 m	6 m

Pergola Arch

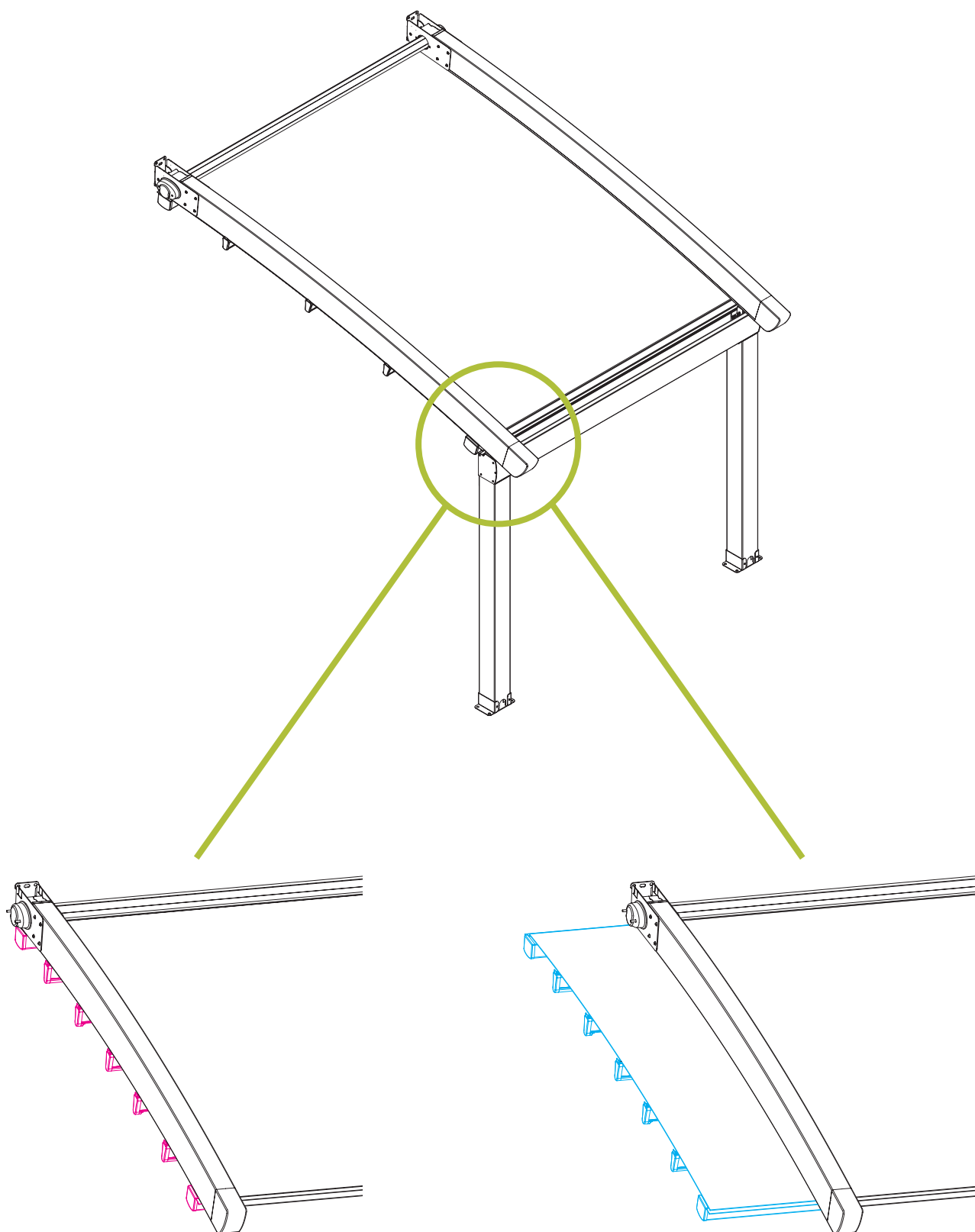
Pergola support options.



Pergola Arch

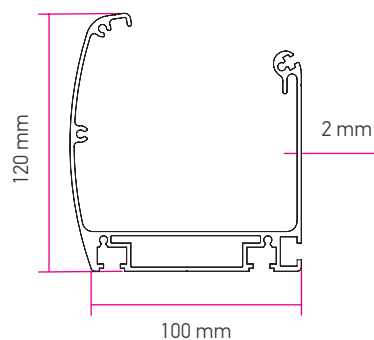
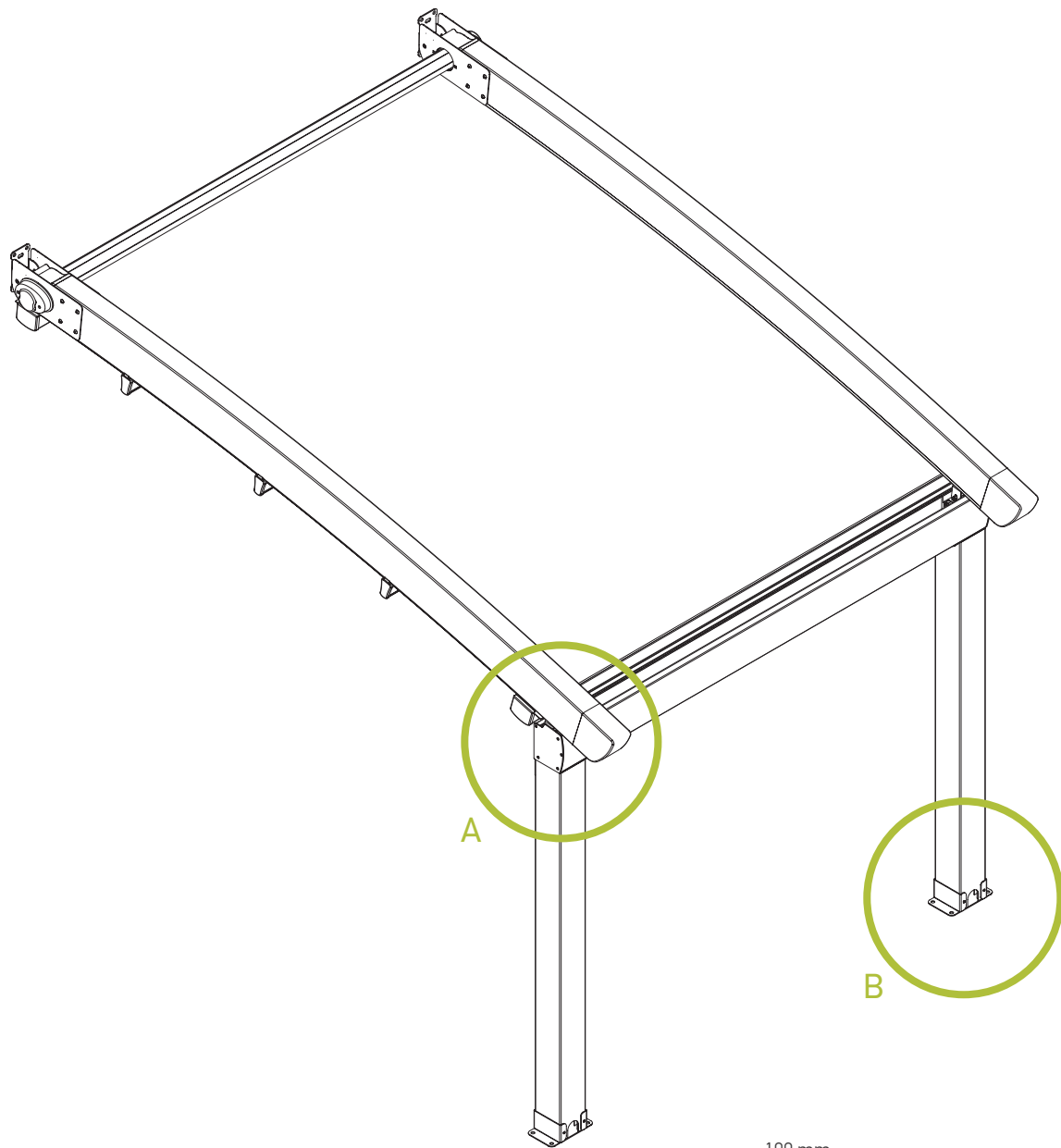
Counterweight overhang choice.

Counterweights can extend a minimum of 1 cm from the rafter and a maximum of 80 cm.

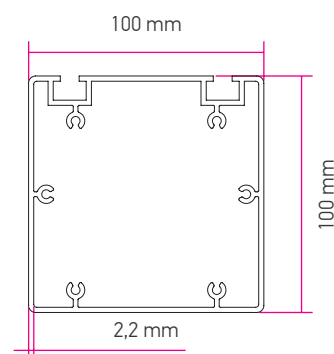


Details of the connection of a pergola with a 120x100 star parapet.

Aluminium 120x100 star parapet with an integrated gutter and 100x100 columns.



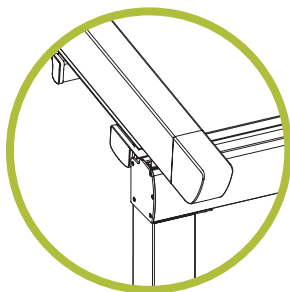
120X100 Parapet-gutter



100X100 Column

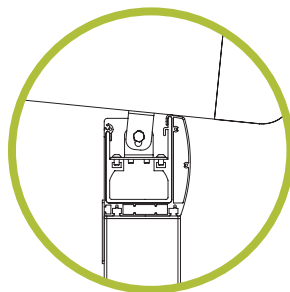
Details of the connection of a pergola with a 120x100 star parapet.

A Details of the rafter-parapet connection.



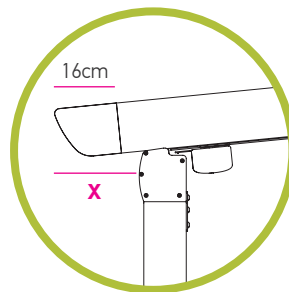
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External detail of Rafter-to-Parapet connection. The total parapet length is always 2 cm longer than the total pergola length.



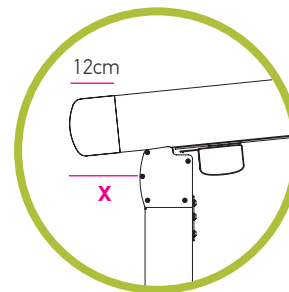
2

Internal Detail of Rafter-to-Parapet connection.



3

Support for an Arch pergola with an 16 cm Aluminium Cover (Corbel) on a 120x100 star Parapet.

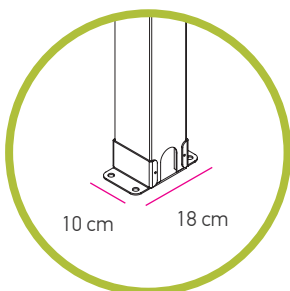


4

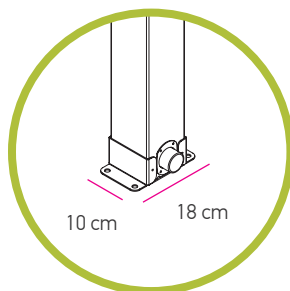
Support for an Arch pergola with an 12 cm Aluminium Cover (Corbel) on a 120x100 star Parapet.

The **X** in images 3 & 4 indicates the total overhang of the rafter from the parapet. The minimum overhang is equal to the aluminium cover. The recommended overhang is equal to the aluminium cover + 5 cm.

B Details of parapet column and rainwater extraction.



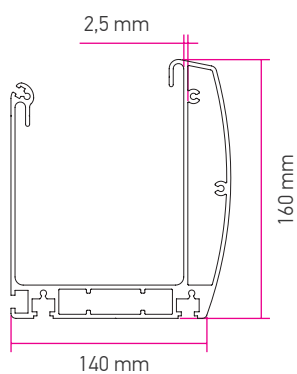
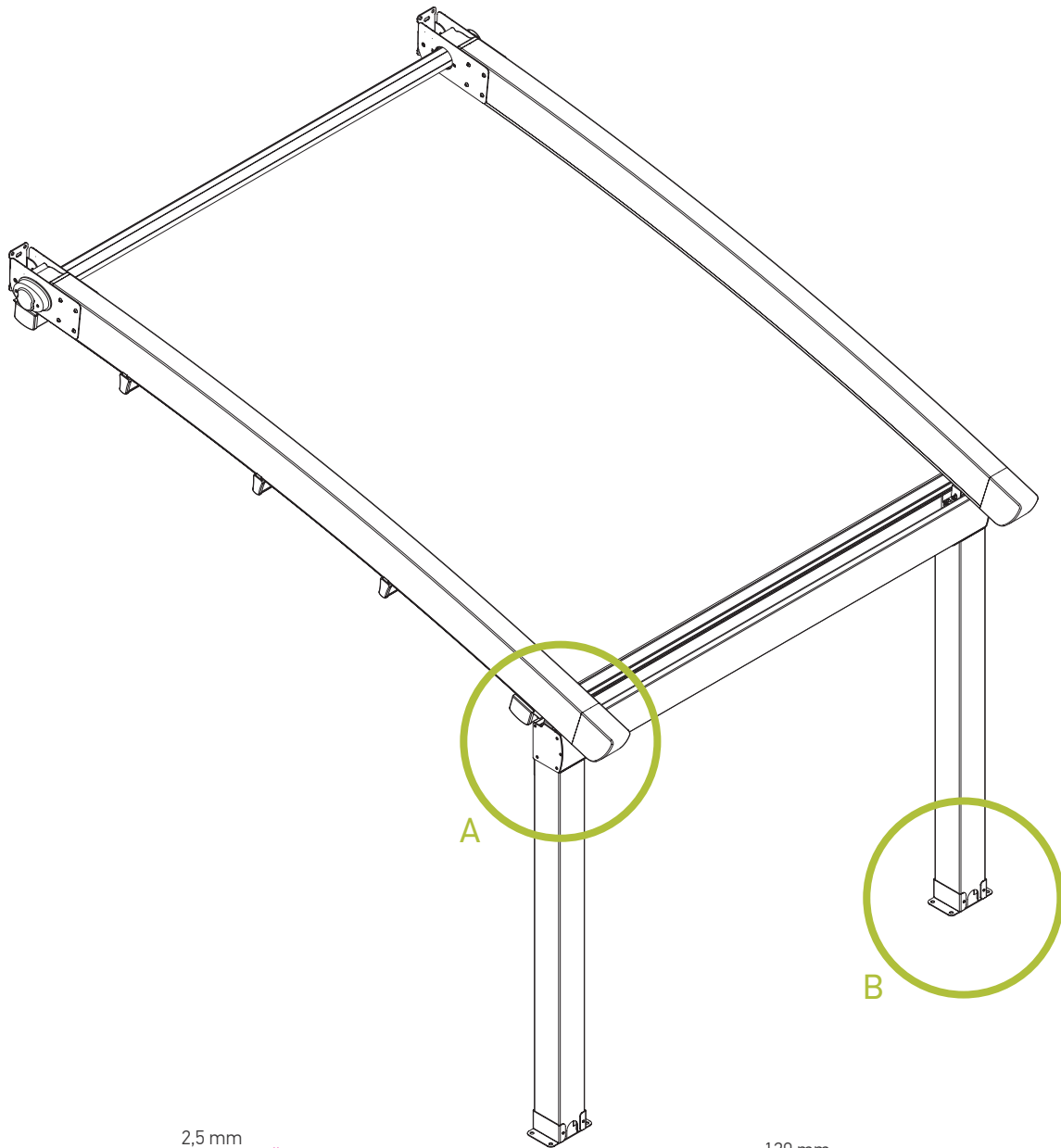
1



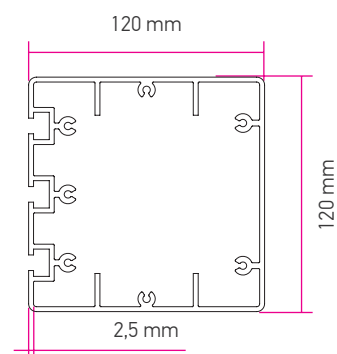
2

Details of the connection of a pergola with a 160x140 magna parapet.

Aluminium 160x140 magna parapet with an integrated gutter and 120x120 columns.
Maximum column-to-column distance 4 metres.



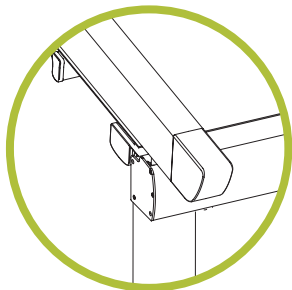
Parapet-gutter 160X140



120x120 Column

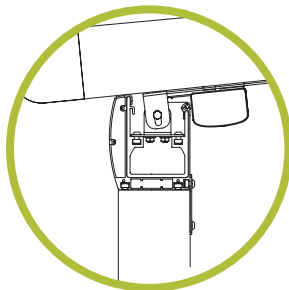
Details of the connection of an Arch pergola with a 160x140 magna parapet.

A Details of the rafter-parapet connection.



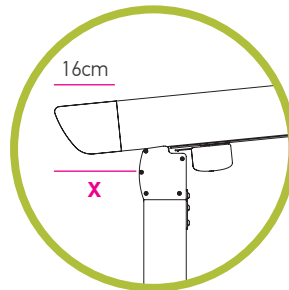
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External detail of Rafter-to-Parapet connection. The total parapet length is always 2 cm longer than the total pergola length.



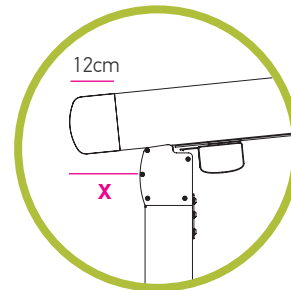
2

Internal Detail of Rafter-to-Parapet connection.



3

Support for an Arch pergola with an 16 cm Aluminium Cover (Corbel) on a 160x140 magna Parapet.

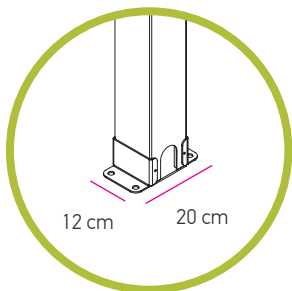


4

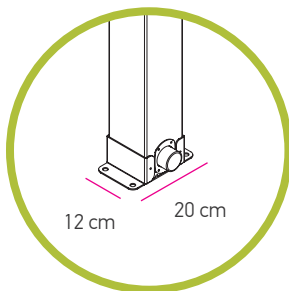
Support for an Arch pergola with an 12 cm Aluminium Cover (Corbel) on a 160x140 magna Parapet

The **X** in images 3 & 4 indicates the total overhang of the rafter from the parapet. The minimum overhang is equal to the aluminium cover. The recommended overhang is equal to the aluminium cover + 5 cm.

B Details of parapet column and rainwater extraction.



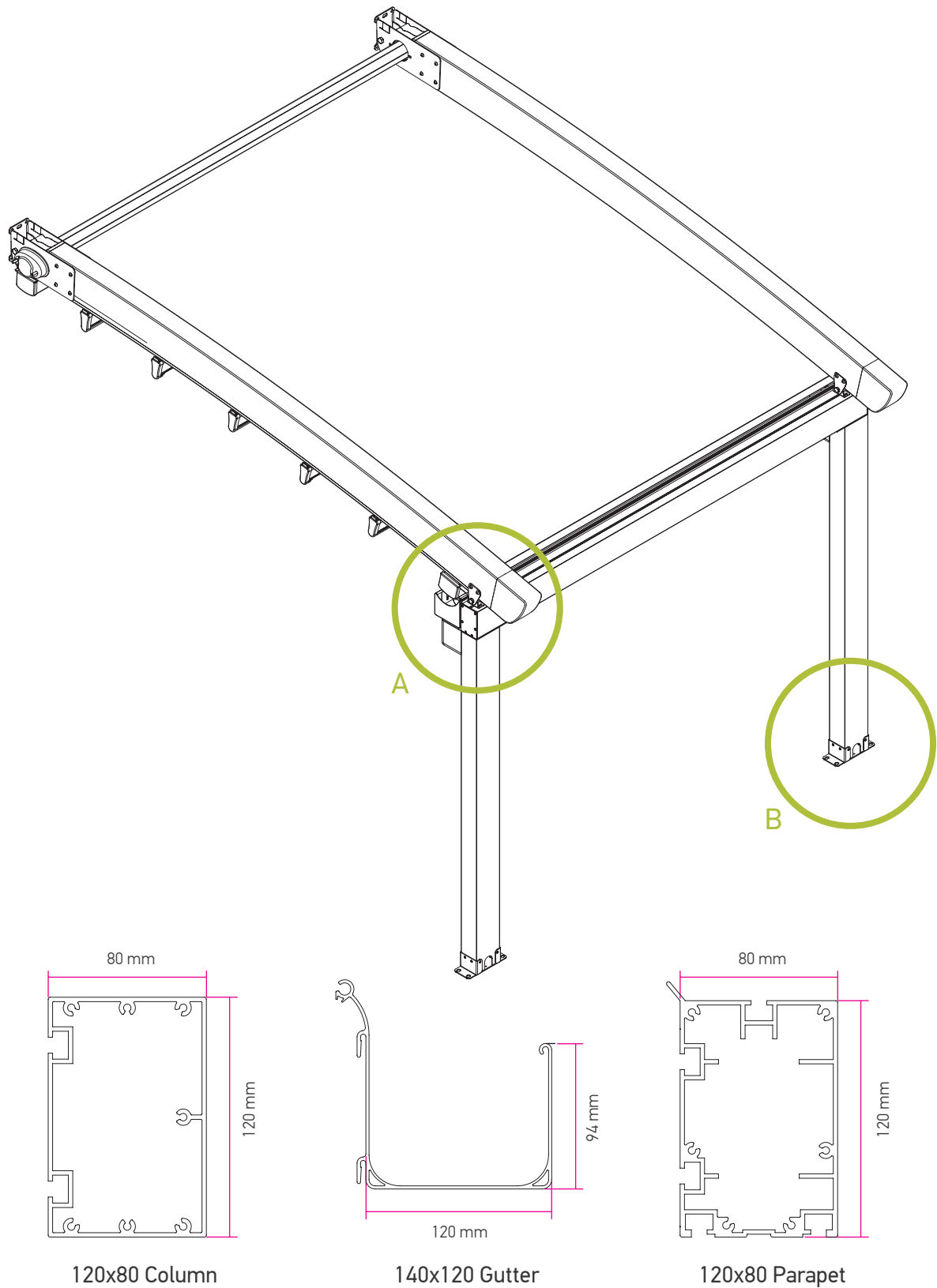
1



2

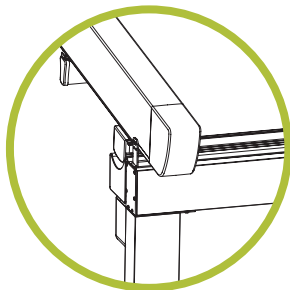
Details of the connection of a pergola with a 120x80 parapet.

Aluminium 120x80 parapet with an extra gutter and 120x80 columns. Maximum column-to-column distance: 4 metres.



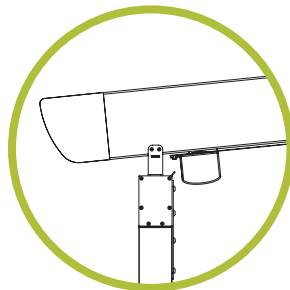
Choices for support of an Arch pergola with a 120x80 parapet.

A Details of the rafter-parapet connection.



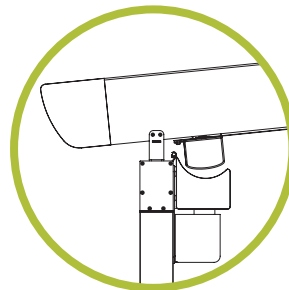
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External detail of Rafter-to-Parapet connection. The total parapet length is always 2 cm longer than the total pergola length.



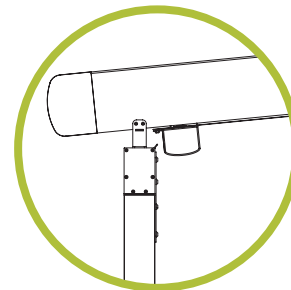
2

Arch pergola with a protruding rafter and 16 cm Aluminium Cover (Corbel) on a 120x80 parapet



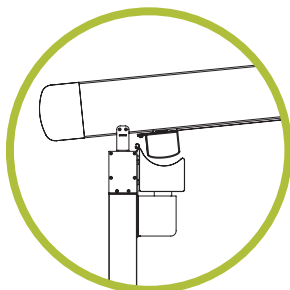
3

Arch pergola with a protruding rafter and 16 cm Aluminium Cover (Corbel) on a 120x80 parapet with an extra 140x120 gutter.



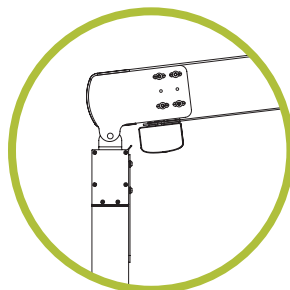
4

Arch pergola with a protruding rafter and 12 cm Aluminium Cover (Corbel) on a 120x80 parapet



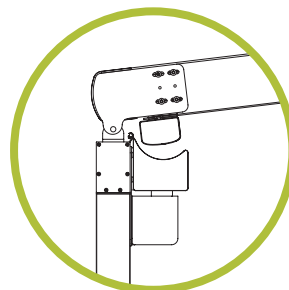
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Arch pergola with a protruding rafter and 12 cm Aluminium Cover (Corbel) on a 120x80 parapet with an extra 140x120 gutter.



6

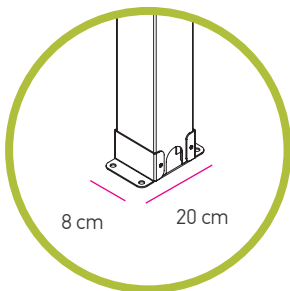
Arch pergola with a face rafter on the 120x80 parapet, 12 cm Aluminium Cover (Corbel).



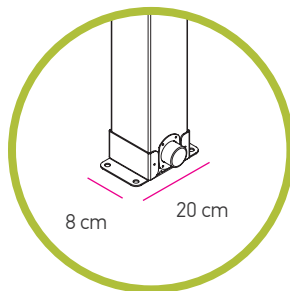
7

Arch pergola with a face rafter on the 120x80 parapet, 12 cm Aluminium Cover (Corbel) with an extra 140x120 gutter.

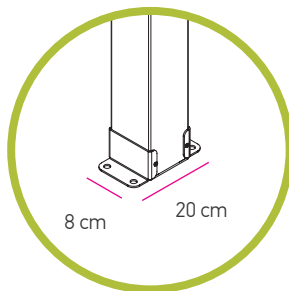
B Details of parapet column and rainwater extraction.



1



2

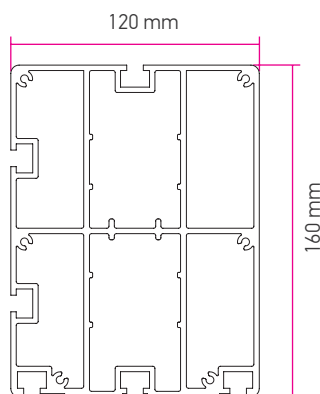
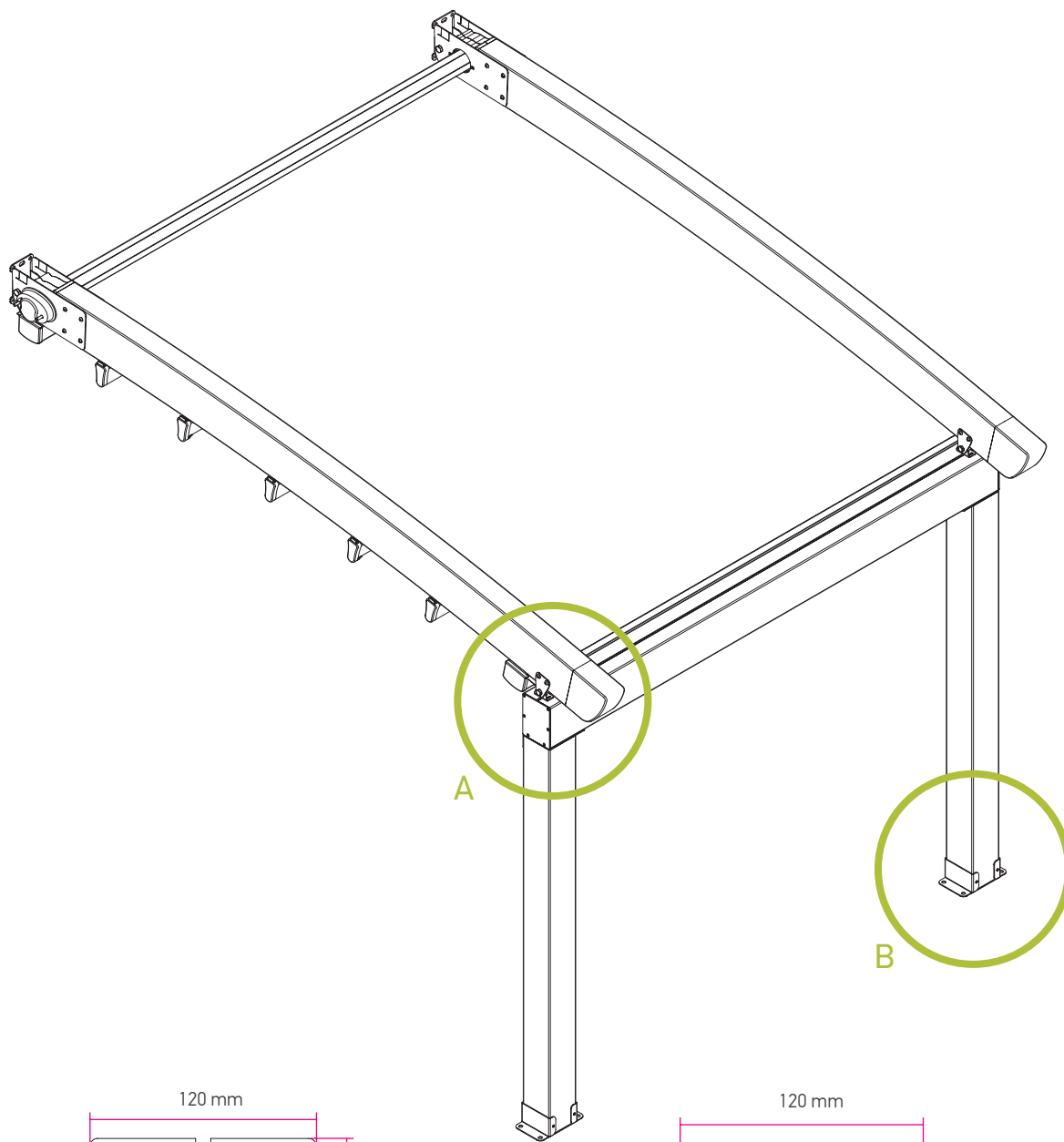


3

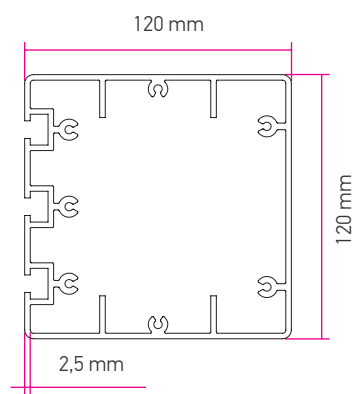
Parapet column without rainwater extraction

Details of the connection of a pergola with a 160x120 parapet.

Aluminium 160x120 parapet with 120x120 columns. Maximum column-to-column distance: 6 metres.



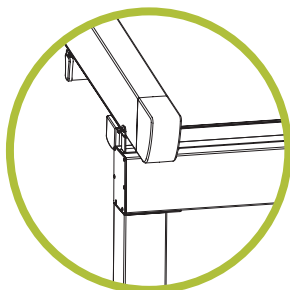
Parapet 160x120



Column 120x120

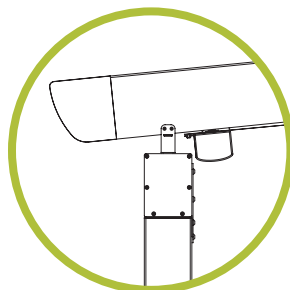
Details of the connection of a pergola with a 160x120 parapet.

A Details of the rafter-parapet connection.



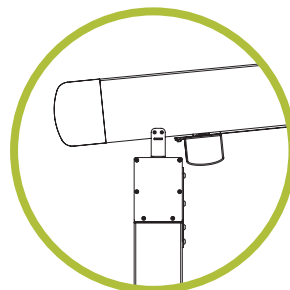
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External detail of the Rafter-to-Parapet connection. The total parapet length is always 2 cm longer than the total pergola length.



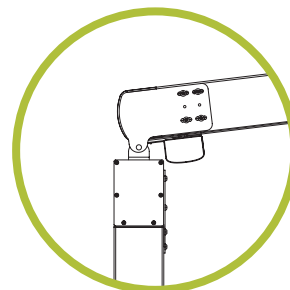
2

Arch pergola with a protruding rafter and 16 cm Aluminium Cover (Corbel) on a 160x120 parapet.



3

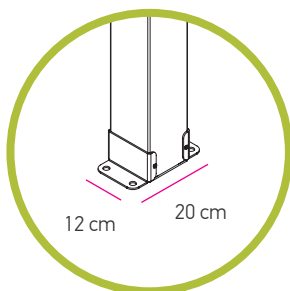
Arch pergola with a protruding rafter and 12 cm Aluminium Cover (Corbel) on a 160x120 parapet.



4

Arch pergola with a face rafter on the 160x120 parapet, 12 cm Aluminium Cover (Corbel).

B Details of parapet column.



1

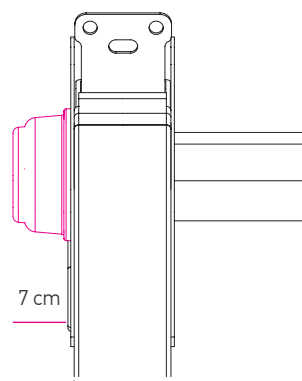
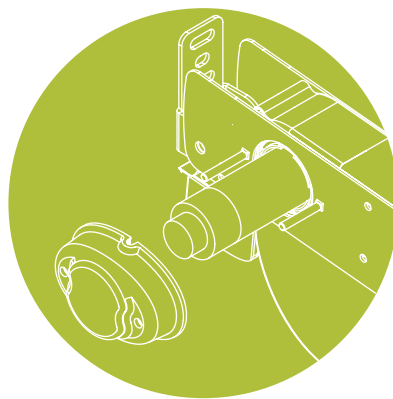
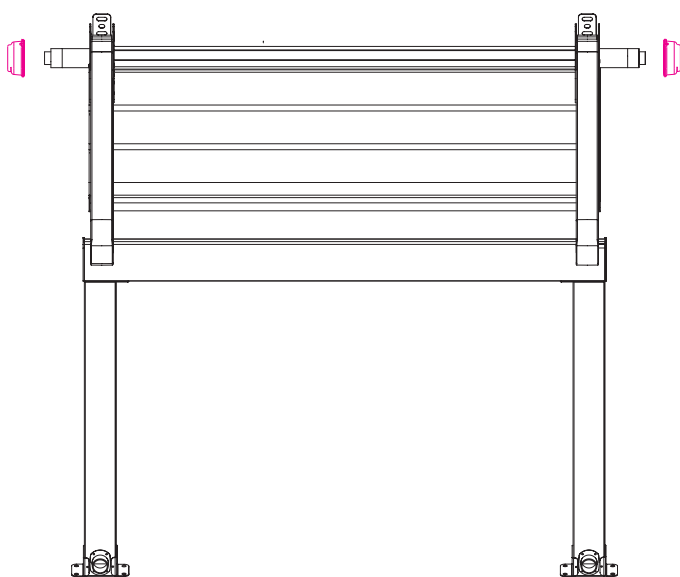
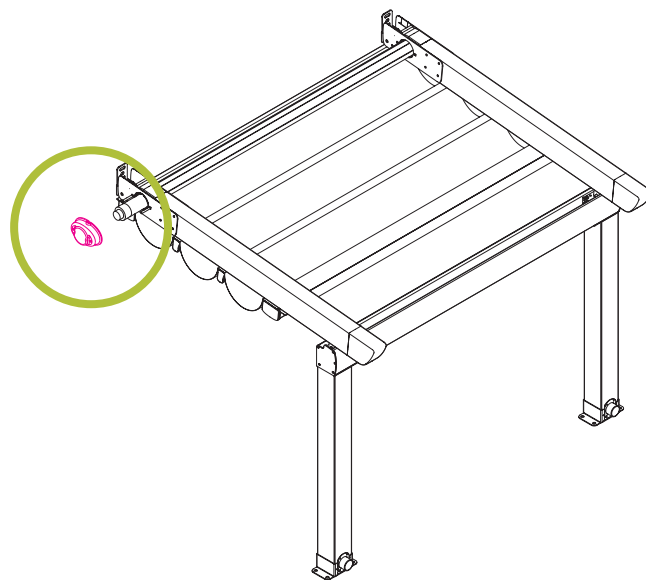
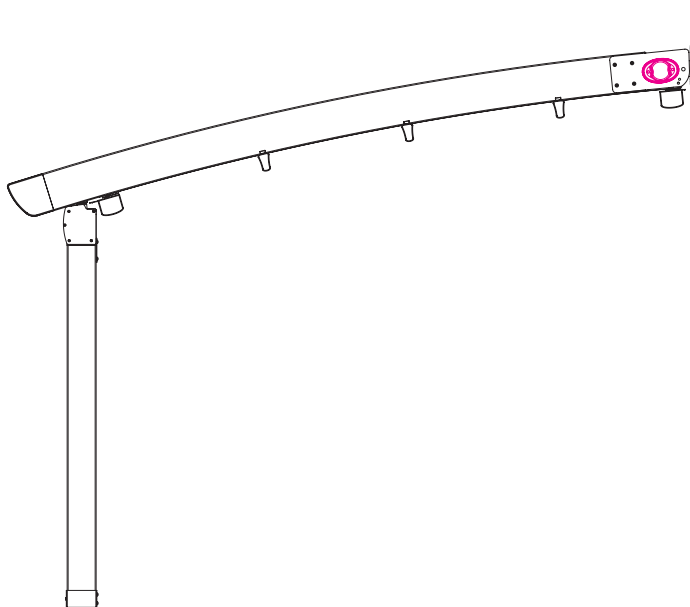
12 cm 20 cm

Pergola Arch

Motion transmission motor.

Motion is transmitted in the Arch pergola by a tubular motor.

For pergolas with large areas and special requirements, two tubular motors can be installed.

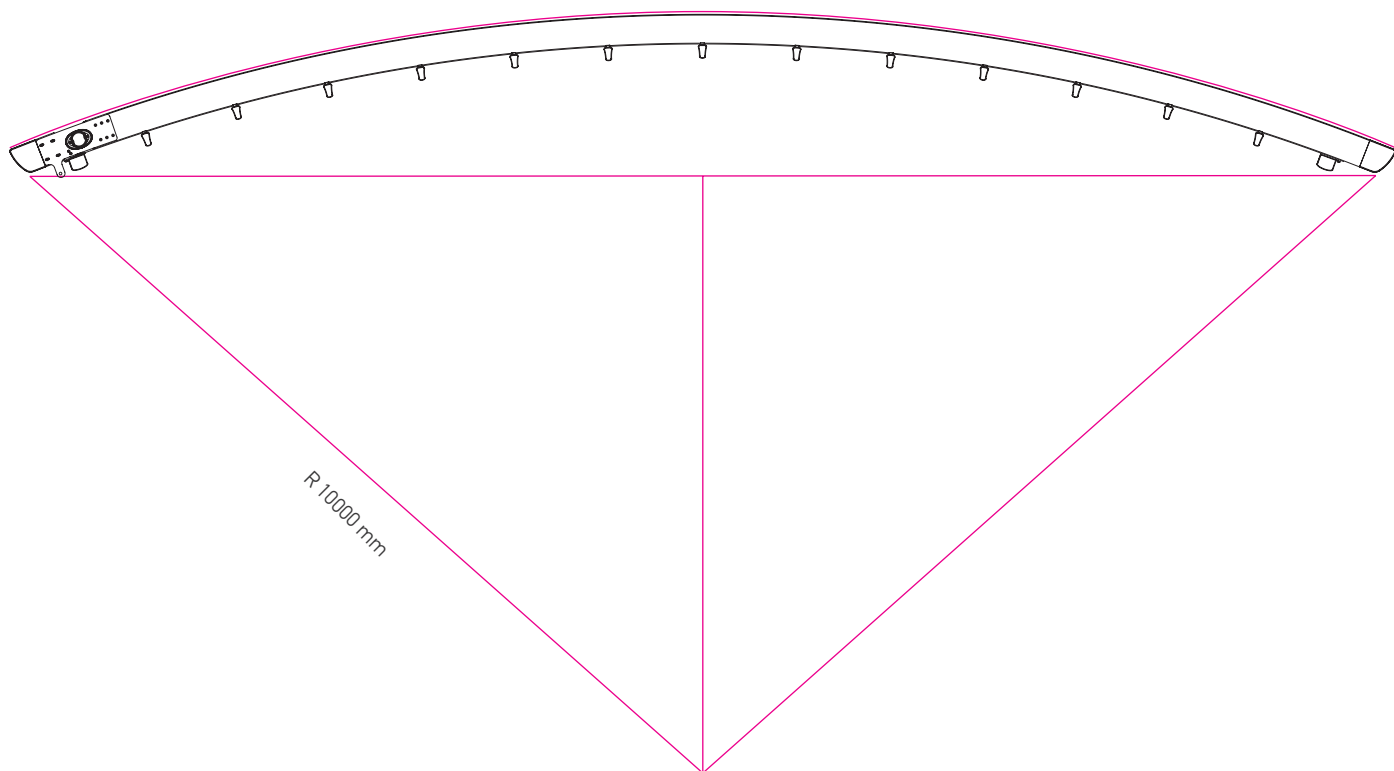


Motor cover detail

Pergola Arch

General information on pergola installation.

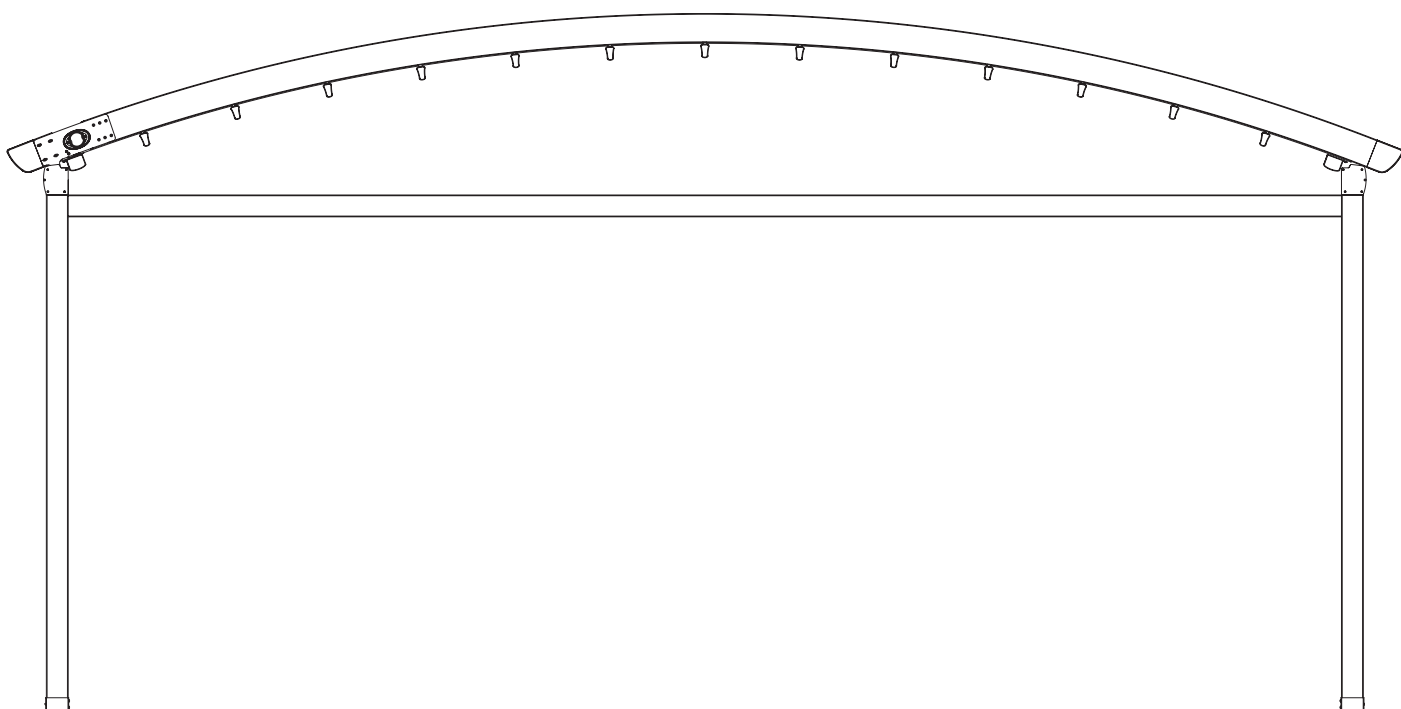
The curve of pergola Arch is constant and the radius is 12500 mm.



Pergola **Arch**

Special pergola applications.

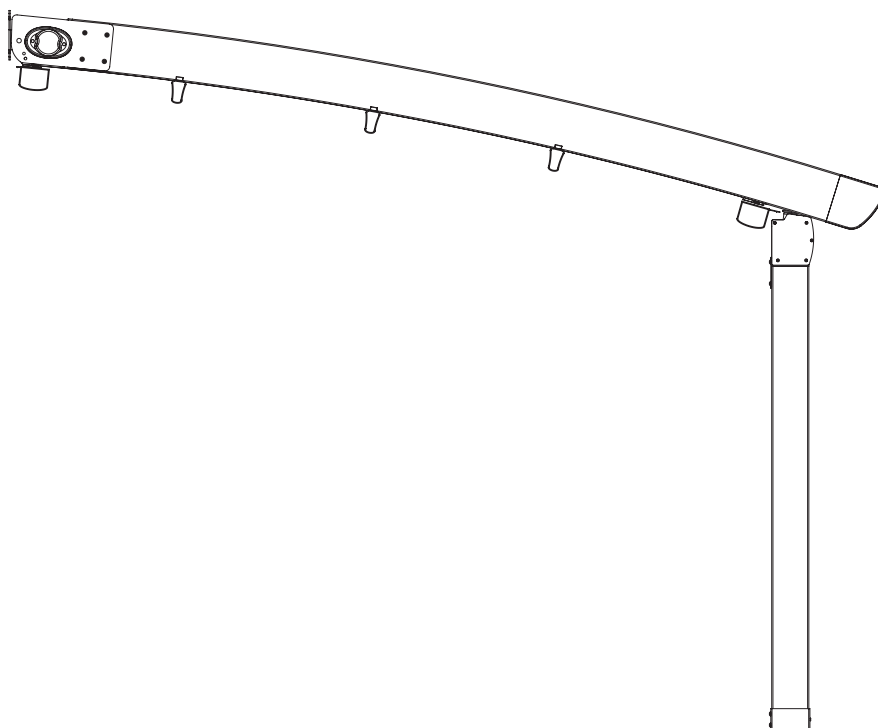
Free standing curved pergola with parapet-gutter 160X140 and columns 120X120.



Pergola Arch

Special pergola applications.

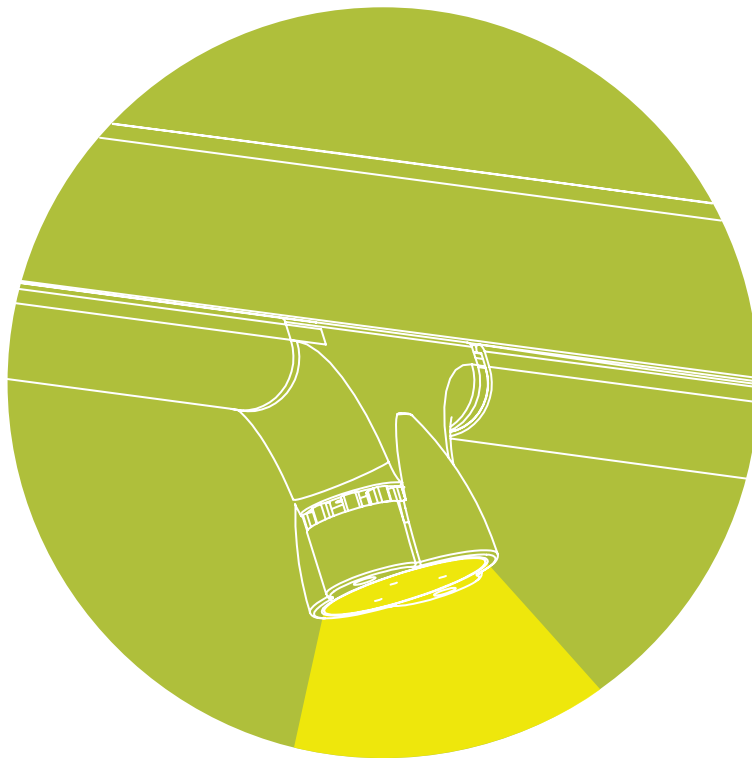
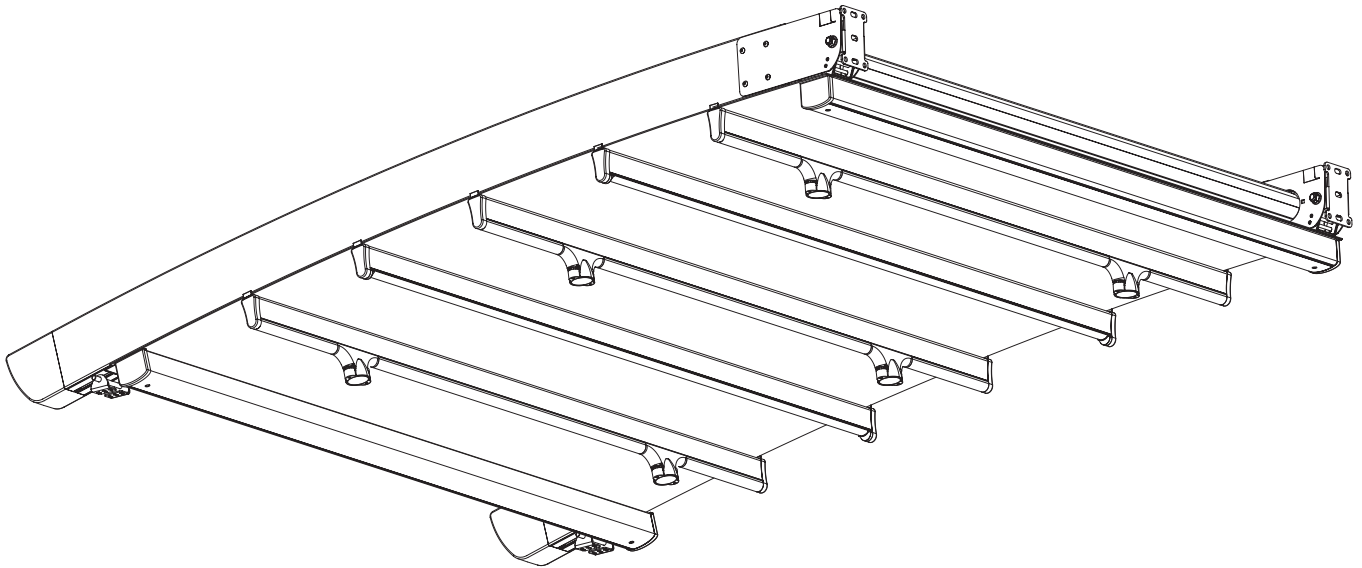
Curved pergola with parapet-gutter 160X140 and columns 120X120, fixed on the wall.



Pergola Arch

Lighting system.

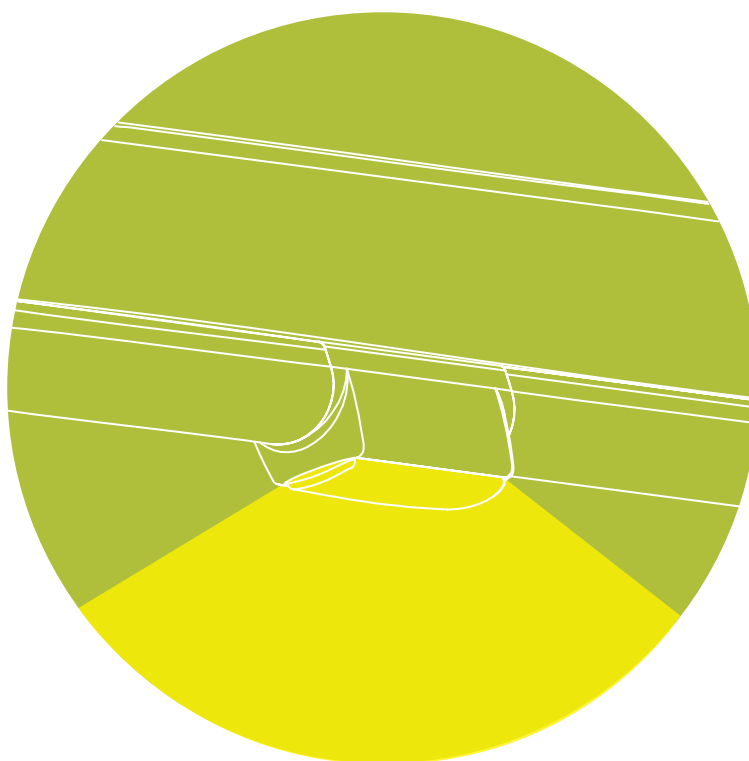
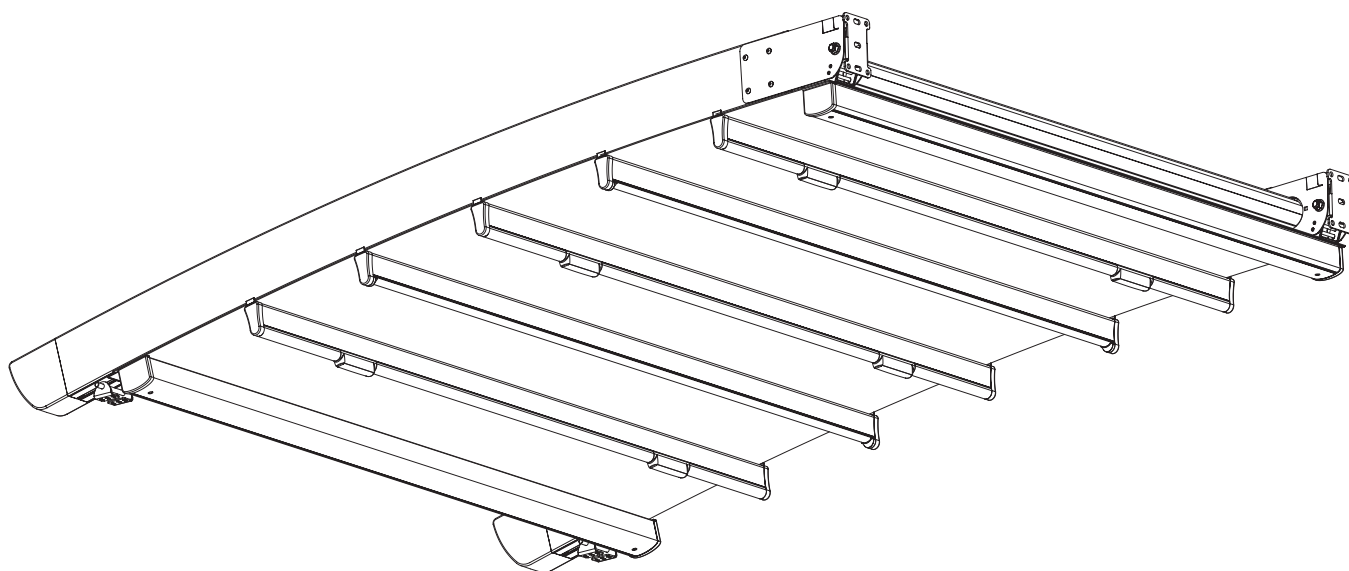
Lighting system with spot-type lighting fixtures. LED 12V lamps with a beam angle of up to 60°. In two lighting colours, Cool White and Warm White.



Pergola Arch

Lighting system.

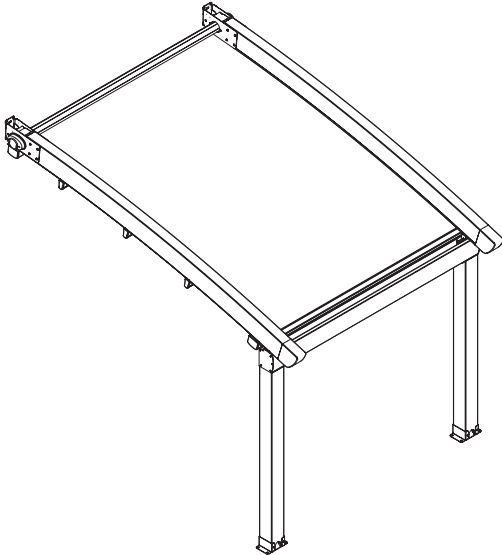
Lighting system with flat lighting fixtures. LED 12V lamps with a beam angle of up to 150°. In two lighting colours, Cool White and Warm White.



Pergola Arch

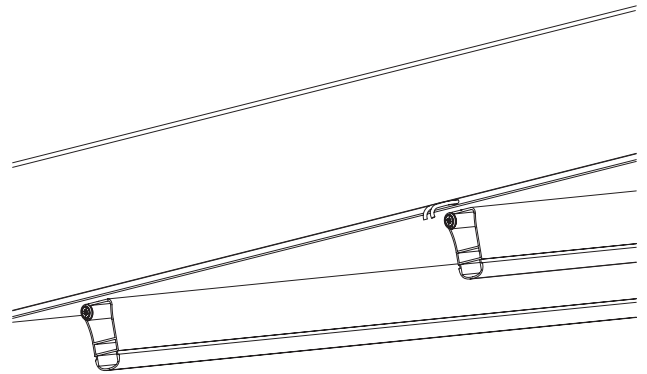
Lighting system. Installation instructions.

1



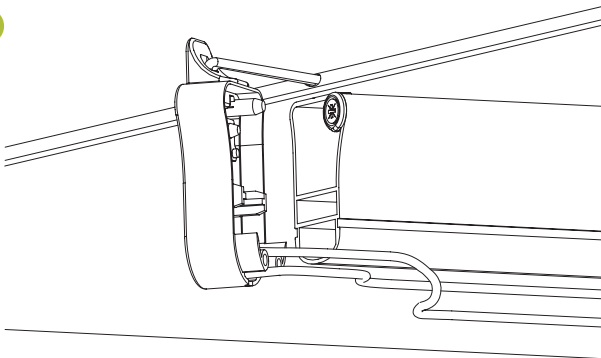
Arch Pergola Installation.

2



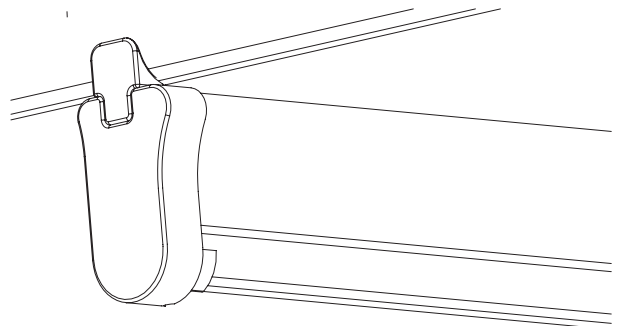
Select the counterweights that will have lighting and open a small hole on the coating material above them - then extract the cable couples.

3

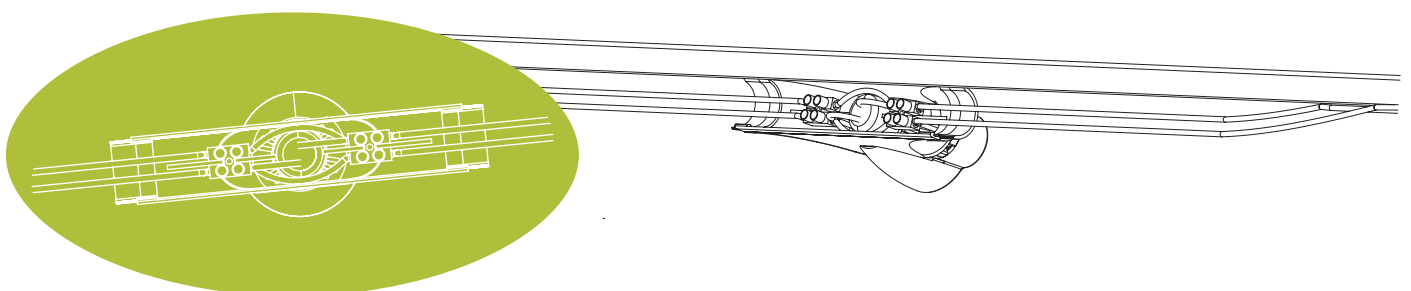


Thread the cables through the plastic counterweight stoppers.

4



5

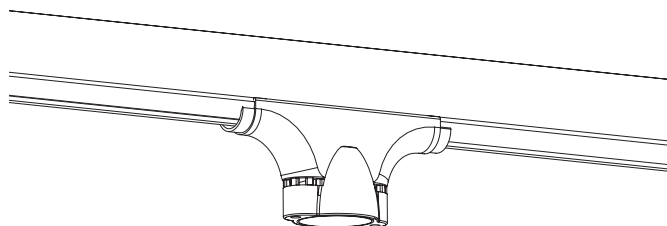
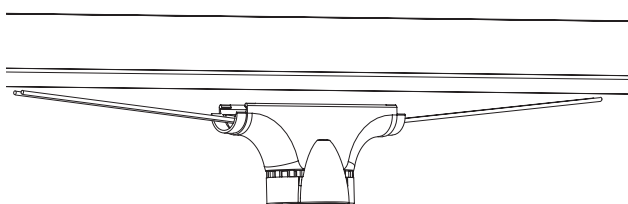


Connect the cables to the lighting fixture. Take one section of the cable found in the packaging and connect it from one lighting fixture to another.

Pergola Arch

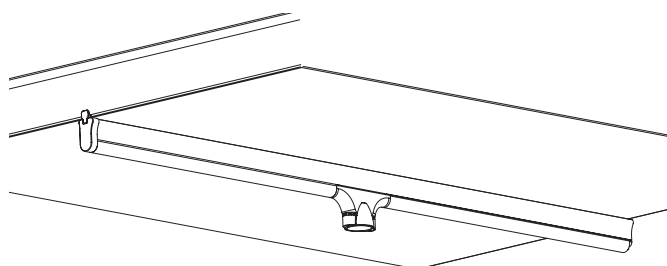
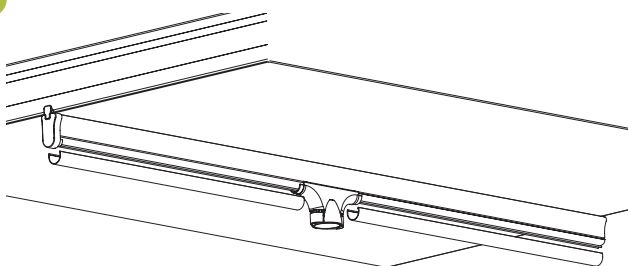
Lighting system. Installation instructions.

6



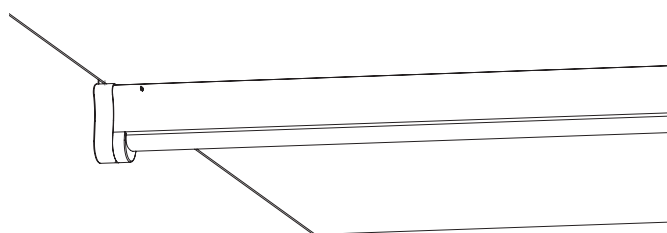
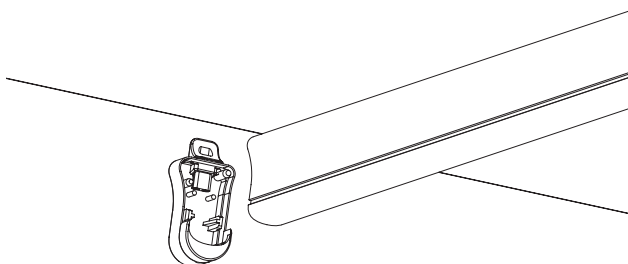
Clamp the lighting fixtures to the counterweights.

7



Cover the cables with the special profiles found in the packaging.

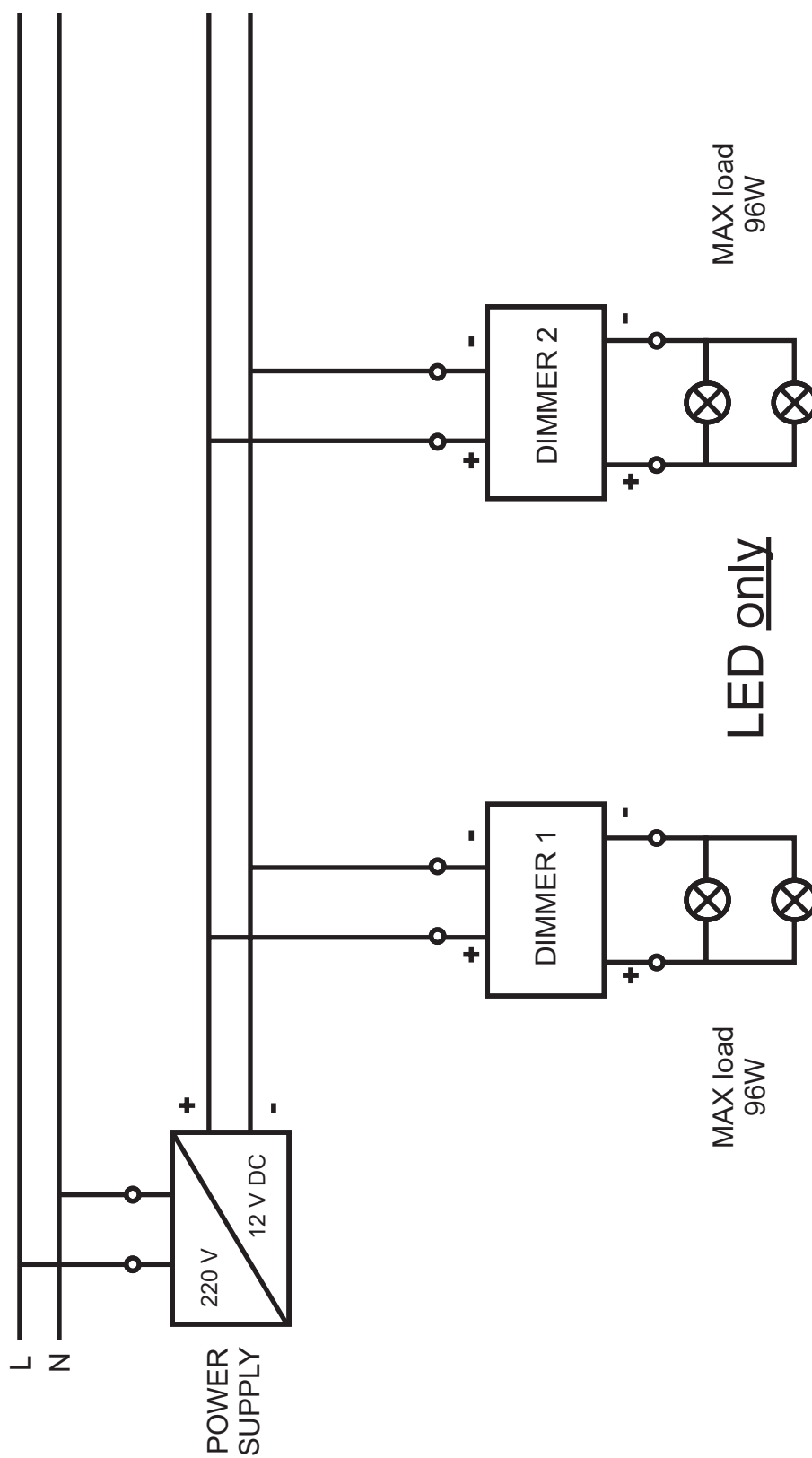
8



Finally, install all the plastic parts of the counterweights.

Pergola Arch

Lighting system. Installation instructions.





Δήλωση Επίδοσης | Declaration of Performance

PEP/CPR/13561/13

1	Προϊόν / Product type	ΤΕΝΤΑ ΠΕΡΓΚΟΛΑ Τύπου Star / CONSERVATORY AWNING Type Star		
2	Κωδικός αναγνώρισης / Product type reference	PE		
3	Προοριζόμενη χρήση / Intended use	Σύστημα σκίασης εξωτερικής χρήσης / Shading system for external use		
4	Κατασκευαστής, διεύθυνση επικοινωνίας / Manufacturer, address	METAFORM A.E 12ο χλμ. Θεσσαλονίκης - Λαγκαδά, 572 00, Θεσσαλονίκη / METAFORM S.A. 12th Km Thessaloniki - Lagadas, 572 00, Thessaloniki		
5	Εξουσιοδοτημένος αντιπρόσωπος, διεύθυνση επικοινωνίας / Authorised representative, address	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A		
6	Εναρμονισμένο Πρότυπο / Harmonized standard Ref	EN 13561:2004 + A1:2008 "Εξωτερικές περσίδες – Απαιτήσεις επιδόσεων και ασφάλειας" / EN 13561:2004 + A1:2008 "External Blinds – Performance requirements including safety"		
7	Σύστημα αξιολόγησης της απόδοσης / System of assessment and verification of constancy of performance	4		
8	Ουσιώδη χαρακτηριστικά / Essential Characteristic	Δηλωθείσα απόδοση / Declared Performance		Τεχνική προδιαγραφή / Technical specification EN 1932:2001 "Αντοχή σε ανεμονίεση - μέθοδοι δοκιμών" / EN 1932:2001 "Resistance to wild loads - Method of testing"
		Μοντέλο / Model	Κλάση / Class	
	Αντοχή σε ανεμονίεση / Wind resistance	PE1	3	
		PE2	3	
		PE3	3	
		PE4	3	
PE5	3			
9	Κοινοποιημένος Φορέας / Notified Body	Εξέδωσε το Πιστοποιητικό Συμμόρφωσης / Issued the Certificate of Conformity		
	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A.	ΔΕΝ ΕΦΑΡΜΟΖΕΤΑΙ / N.A.		
10	Η απόδοση του προϊόντος που ταυτοποιείται στα σημεία 1 και 2 ανταποκρίνεται προς την απόδοση που δηλώθηκε στο σημείο 8. Η παρούσα δήλωση απόδοσης εκδίδεται με αποκλειστική ευθύνη του κατασκευαστή που ταυτοποιείται στο σημείο 4.			
	The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.			
	Υπογραφή για λογαριασμό και εξ ονόματος του κατασκευαστή από / Signed for and on behalf of the manufacturer by:			
	Φραγκόπουλος Στυλιανός - Υπεύθυνος Ποιότητας Fragopoulos Stelios – Quality Manager			
Τόπος και ημερομηνία έκδοσης / Place and date of issue		Υπογραφή / Signature		
Θεσσαλονίκη / Thessaloniki ____/____/20____		