



# WATERTIGHT ALUMINIUM PERGOLA SYSTEM WITH ROTATING LOUVERS

#### Introduction

FRESH OUTDOOR PERGOLA has been designed to meet the needs of the waterproof systems market. An all-aluminum system with rotating blades protects against the sun's rays on sunny days and against rainwater. Essential characteristics of the system:

- Hidden movement mechanism and hidden gaskets and support pieces.
- $\bullet$  The pergola contains a complete drainage system.  $\bullet$  Louvers rotate from 0 ° to 135 ° for adequate ventilation and shade during the day.
- Possibility of choosing between standard slats and LED lighting, available in a RAL color palette and imitation wood.
- Minimum maintenance thanks to the excellent properties of aluminum. An ideal system for use in outdoor and semi-outdoor environments in:

Hotel facilities. F & B outlets.







#### **D**ESIGN

Fresh Outdoor Pergola is studied and designed in a way to absorb any noise that might be caused during the movement of the louvers.

This happens thanks to the use of the motorised system that permits the free movement of the louvers. The motorised system is situated in the interior part of the beam to ensure that it will not be visible. In addition, thanks to the use of gasket between the louvers it is prevented the noise provoced from the

Also, at the flank of the louvers there is situated on the beam a brush that not only absorbs the noise provoced from the louver's movement but also, prevents the sunlight from entering when the louver is closed.

#### OPTIONAL PRODUCTS (CUSTOMER'S ADDITION)

Possibility to choose from a variety of automated systems:

- Led lightning

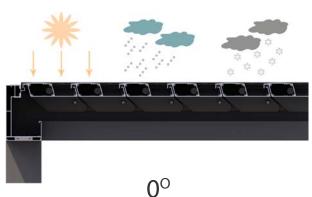
louver's closing.

- Rain or wind sensor
- Infrared heating
- Transmitter and central control
- Music and audio control system through bluetooth
- Smartphone control
- Temperature sensor
- Snow sensor

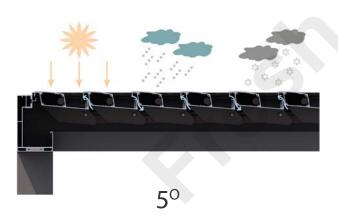


#### LOUVERS MOVEMENT

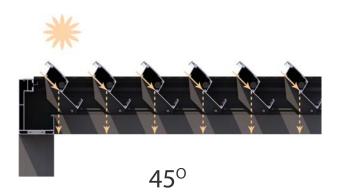
The free rotation of the louvers from 0° to 120° allows the maximum use of the pergola during different weather.



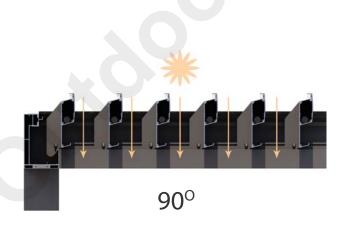
The roof remains closed, offering protection from all weather.



Permits the ventilation of the area even if it is raining or snowing.



Allows the sunlight to enter, controlling though the illumination.



Permits full use of the sunlight.



100°

Maximum louver's opening, that allows maximum use of sunlight even in sunset.



#### Drainage System

Fresh Outdoor pergola is designed in a way to collect rainwater and channel it to the side beams of the louvers. The water is the guided out of the structure. The Louvers are keeping the raindrops is such a way that when they are opening not to have water drop.





#### Rainwater Drainage System



**F**INISHING

The finishing of the profiles can be chosen between anodized, RAL colour or imitation wood.



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# Profiles Summary



# Profiles Summary

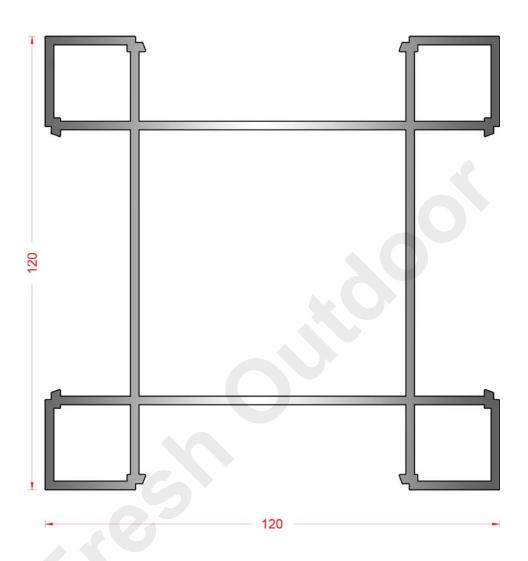
Profile	Drawing	Weight	Length	Page
200-718		3938gr/m	4.10м 5.10м 6.10м	11
200-719		1423gr/м	бм	13
200-733		2840gr/m	3.10m 4.10m 5.10m	12
200-731	E. Ser Ser	2719gr/м	3.10m 4.10m 5.10m	12
200-722	J	349gr/m	бм	13
200-723		633gr/m	6м	13
200-732		595gr/m	6м	13
200-725	<u>1</u>	532gr/m	бм	12
200-726		4063gr/m	6.10м	10
200-728		2011.5gr/м	6м	14
200-729		2268gr/m	6м	14
200-730		1124gr/м	6м	14
102-011	<u>1</u>	335gr/m	бм	10
32444		443gr/m	6м	10
8230		121.5gr/m	6м	13



# Profiles



# **P**ROFILES



200-726	MULLION
WEIGHT	4063gr/m
MOMENTS OF INERTIA	I <sub>x</sub> =257.1&m <sup>4</sup> I <sub>y</sub> =257.1&m <sup>4</sup>



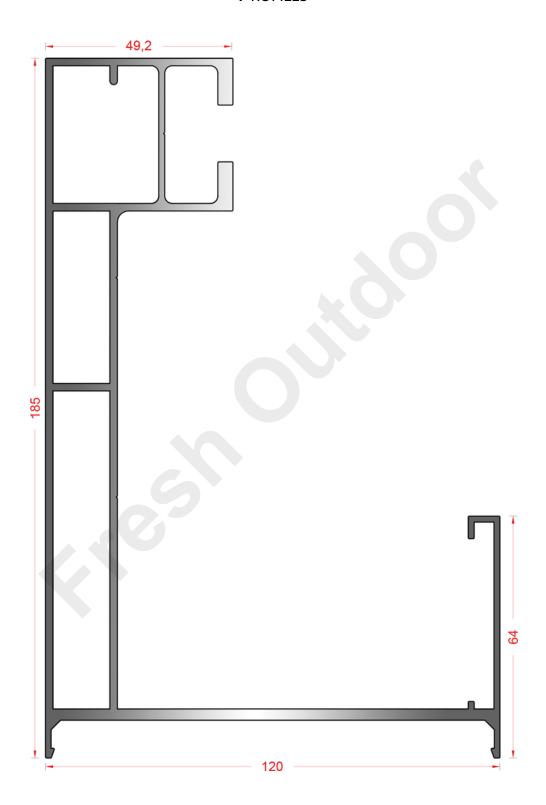
102-011	MULLION'S CAP
WEIGHT	335gr/м



32	444	MOVEMENT PROFILE
	WEIGHT	443gR/M



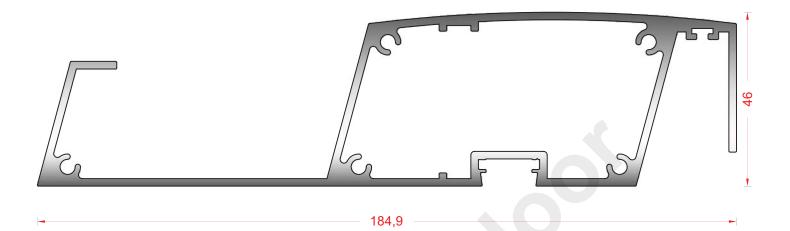
# **P**ROFILES



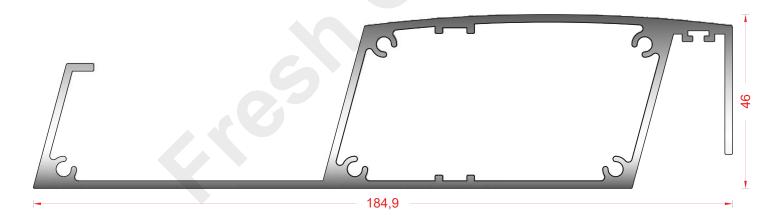
200-718	BEAM
WEIGHT	4020gr/м
MOMENTS OF INERTIA	I <sub>x</sub> =594.0см <sup>4</sup> I <sub>y</sub> =206.7см <sup>4</sup>



# Profiles



200-733	LOUVER
WEIGHT	2840 gr/m
MOMENTS OF INERTIA	I <sub>x</sub> =32.85см <sup>4</sup> I <sub>y</sub> =336.69см <sup>4</sup>



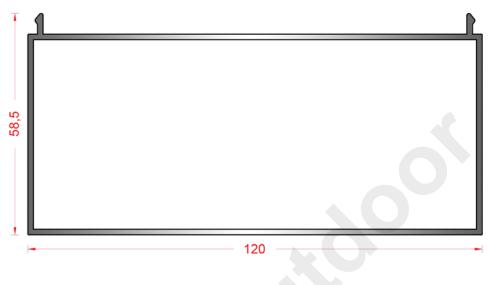
200-731	LOUVER
WEIGHT	2731 gr/м
MOMENTS OF INERTIA	I <sub>=</sub> 32.66см <sup>4</sup> I <sub>=</sub> 327.5см <sup>4</sup>



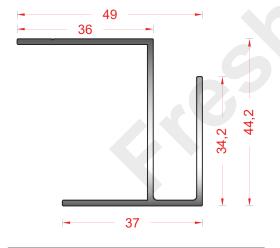
200-725	BEAM'S CAP
WEIGHT	523.5 gr/m



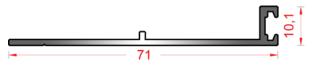
# Profiles



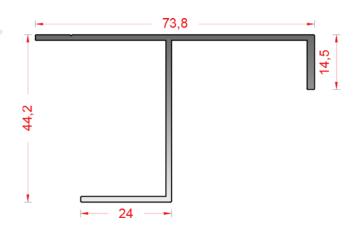
200-719	BEAM CAP WITH VACUUM
WEIGHT	1423 gr/m



200-724	FRONT SPACER
WEIGHT	500 gr/m



200-722	SIDE SPACER
WEIGHT	349 gr/m

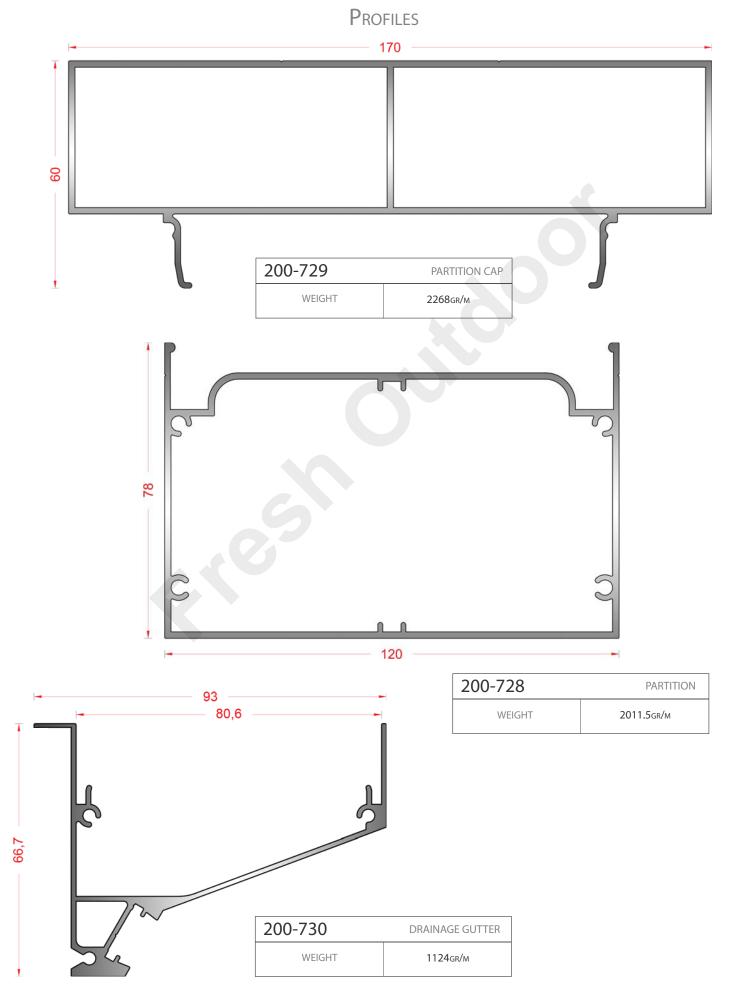


200-723	BACK SPACER
WEIGHT	633 gr/m



8230	FLAT BAR
WEIGHT	121.5 gr/m







#### Typology

MAXIMUM DIMENSIONS: - BEAM 6M
- LOUVER: 4.3M\*

#### \*WITHOUT SNOW LOAD

THE MAXIMUM LENGTH WITH SNOW LOAD IS 3.80m.

In each construction the <u>Louvers must move at</u>
<u>The same time</u>. For the use of a <u>Second motorised</u>
<u>SYSTEM</u> IT IS NECESSARY TO <u>USE THE "T" PROFILE</u>.



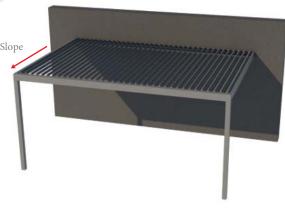
4 MULLIONS



3 MULLIONS



2 MULLIONS (LOUVER\_PARALLEL TO WALL)



2 MULLIONS(LOUVER\_PERPENDICULAR TO WALL)



NO MULLIONS

For every construction must be applied incination parallel to louver's direction. The inclination should be  $\sim\!2,\!00\%$ , according to the length of the pergola

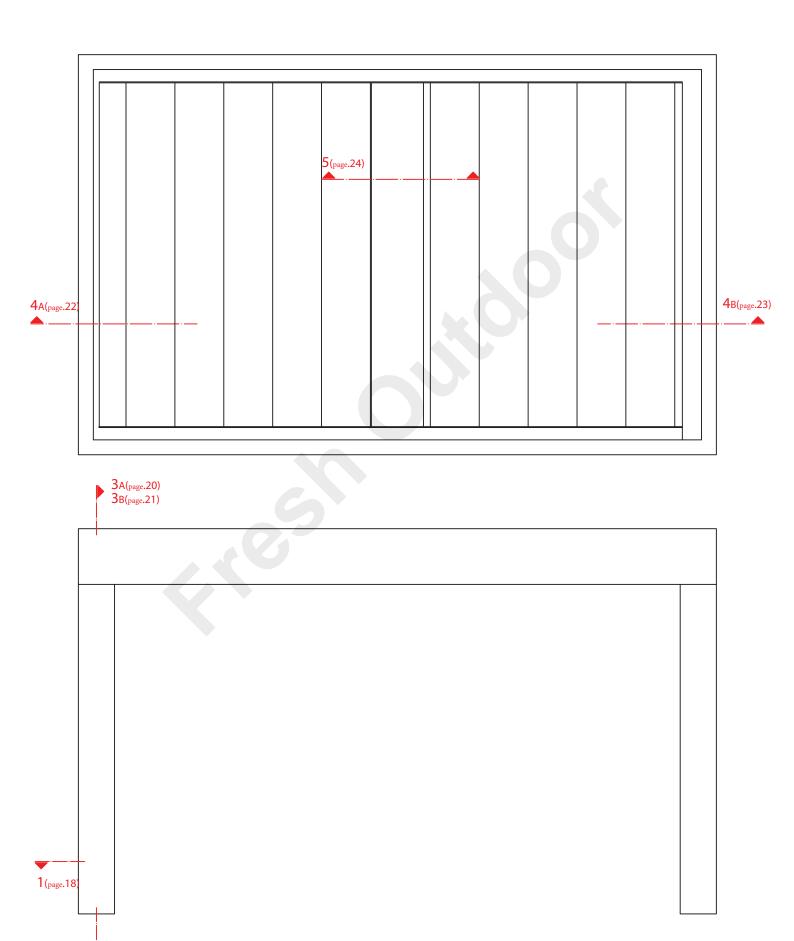


DUPLEX (8 MULLIONS)



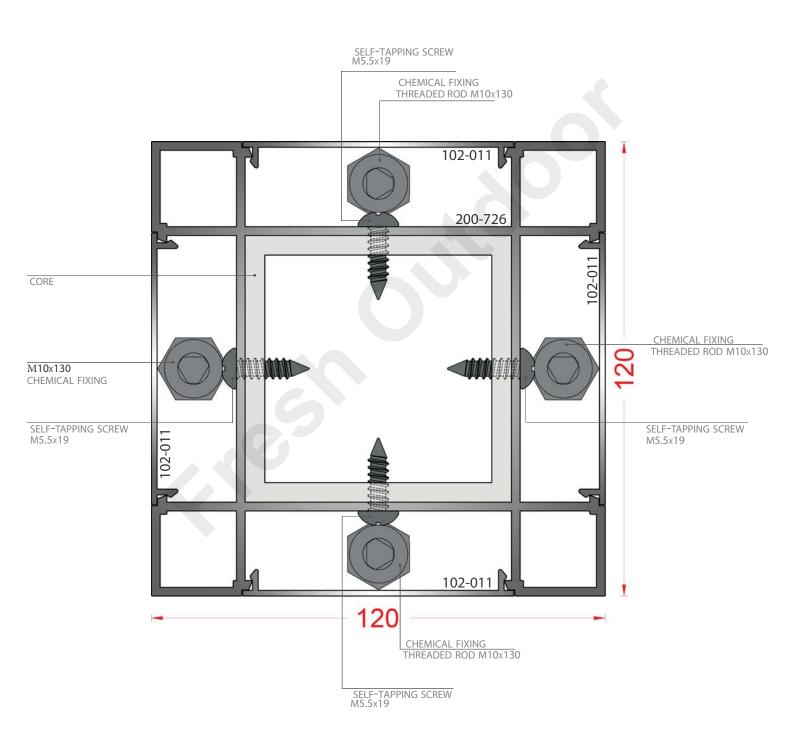
# SECTIONS

2(page.19)



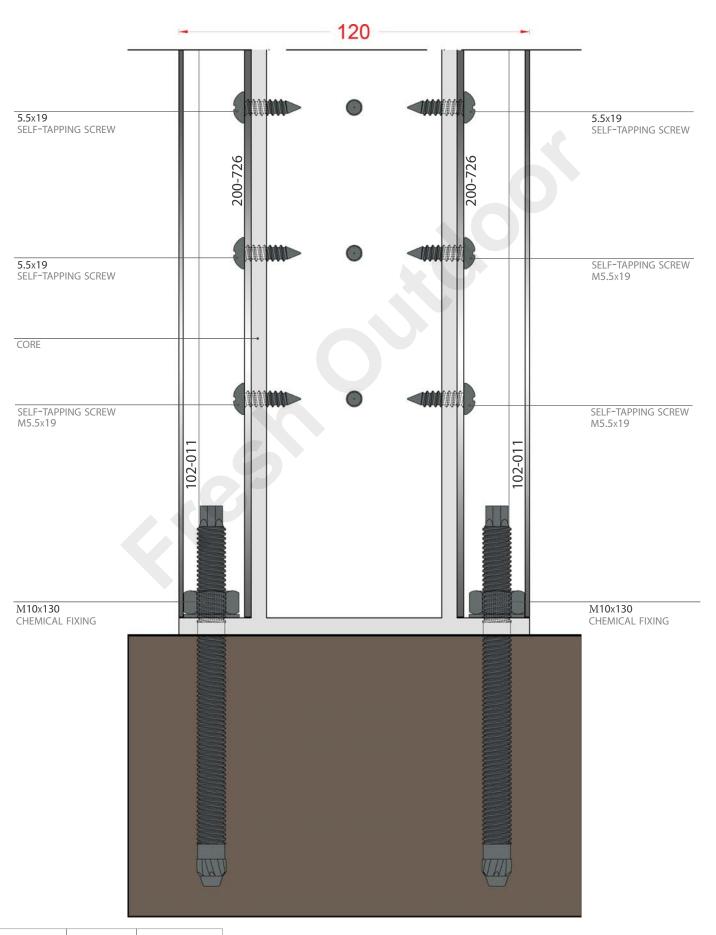


### Mullion - Core (Horizontal Section)



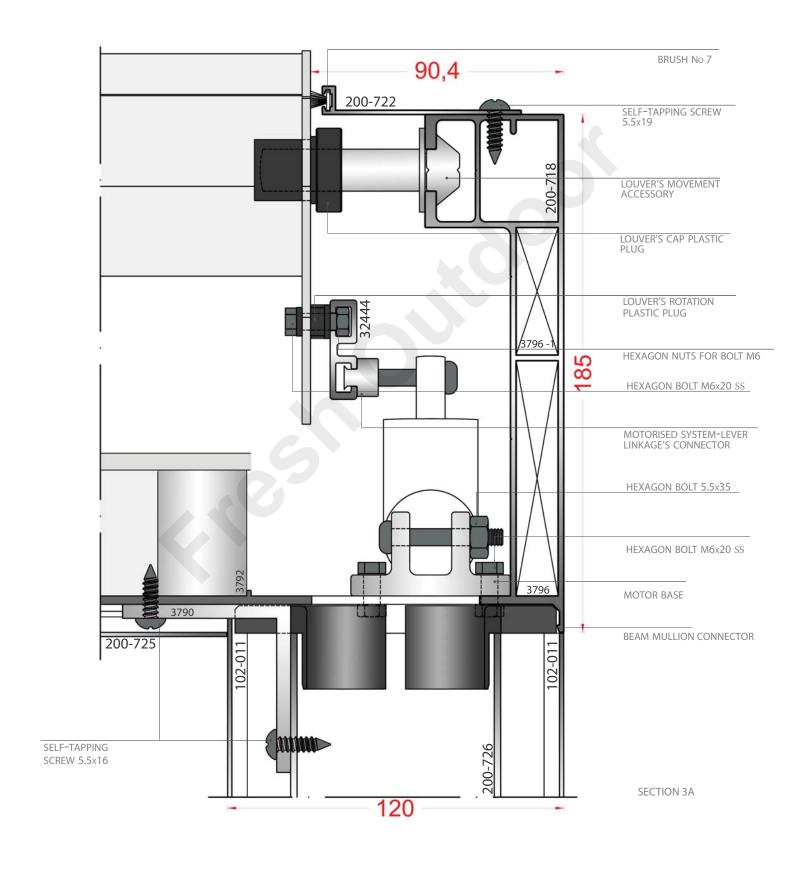


### Mullion - Core (Horizontal Section)



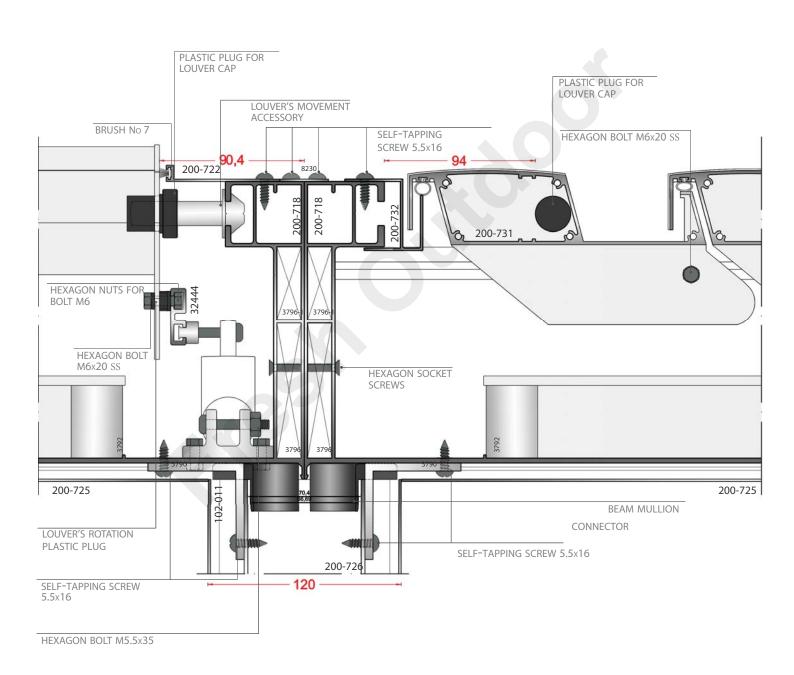


#### BEAM-MULLION



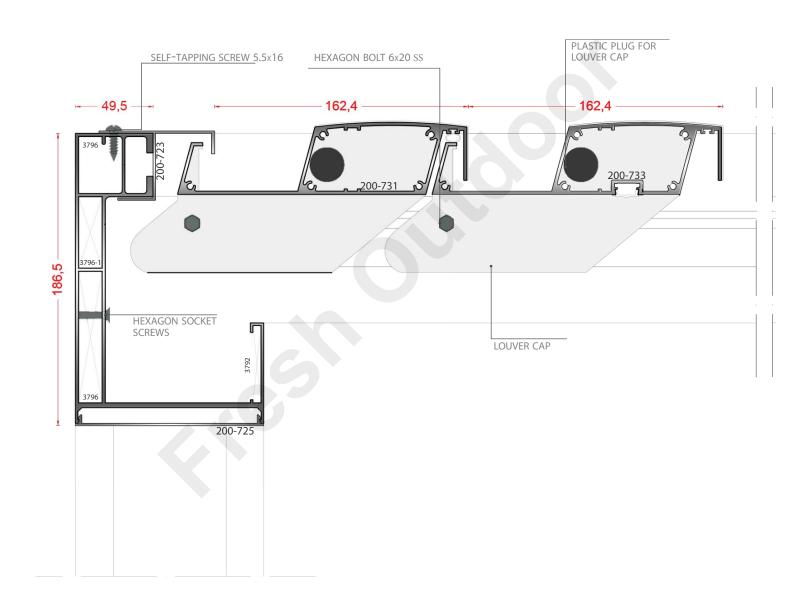


#### Double beam with one Mullion



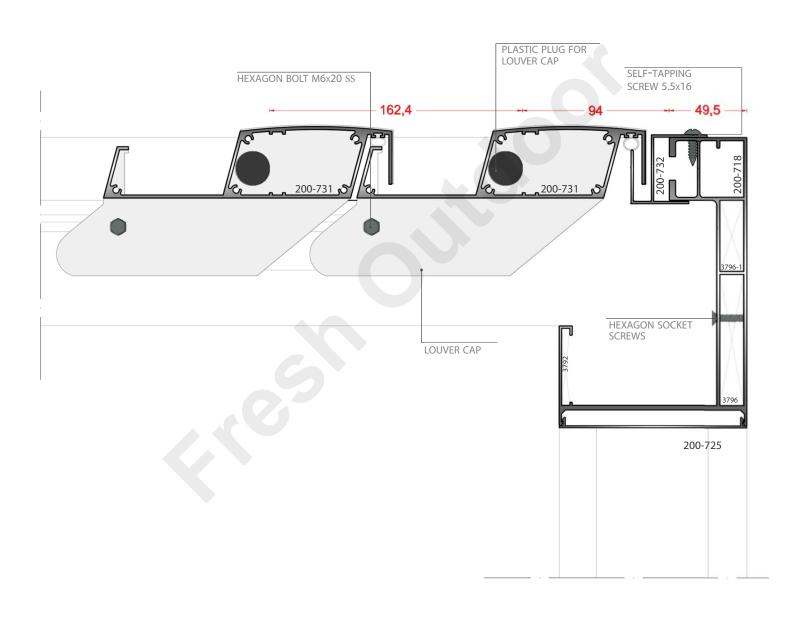


### Louver



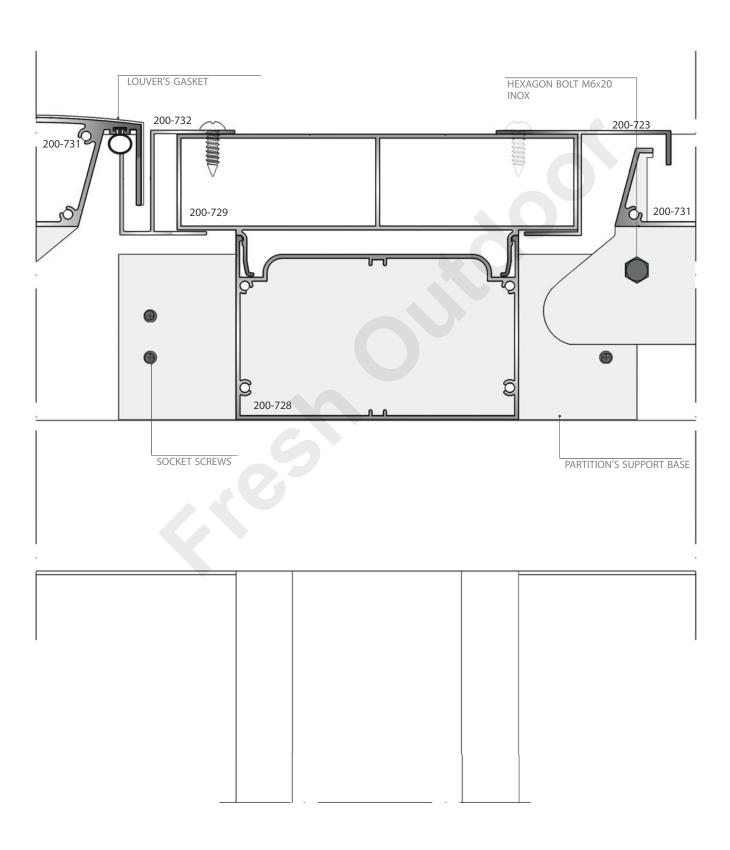


#### Louver





### Louver's Partition



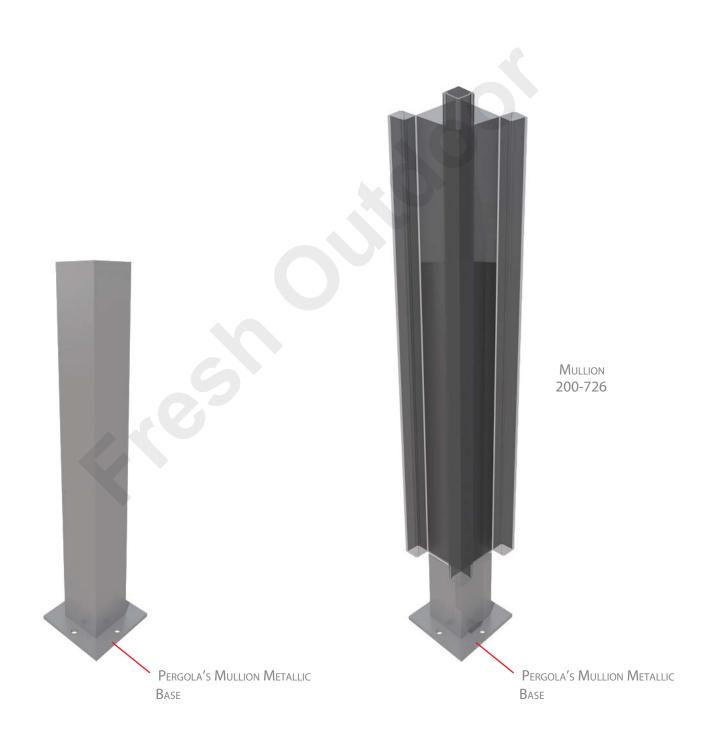








# **01\_**MULLION-CORE INSTALLATION



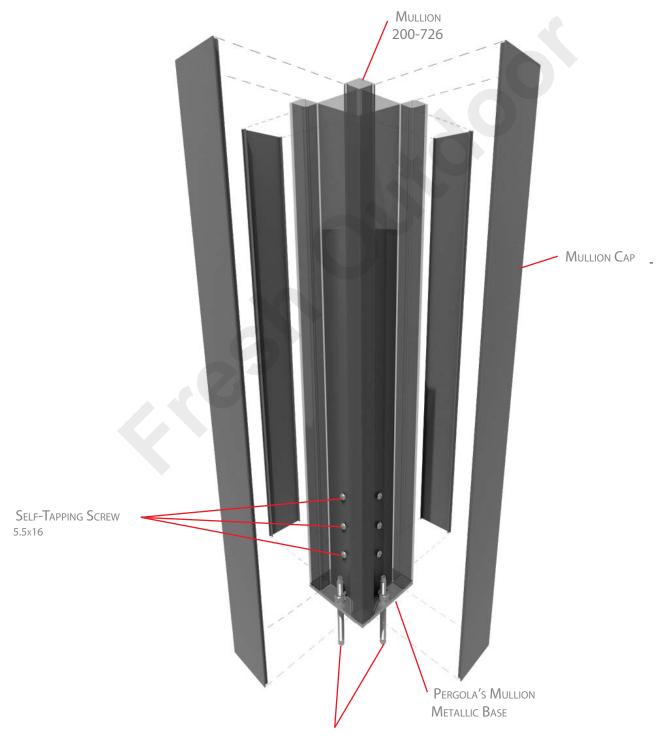


# **01\_**MULLION-CORE INSTALLATION





# **01\_**MULLION-CORE INSTALLATION

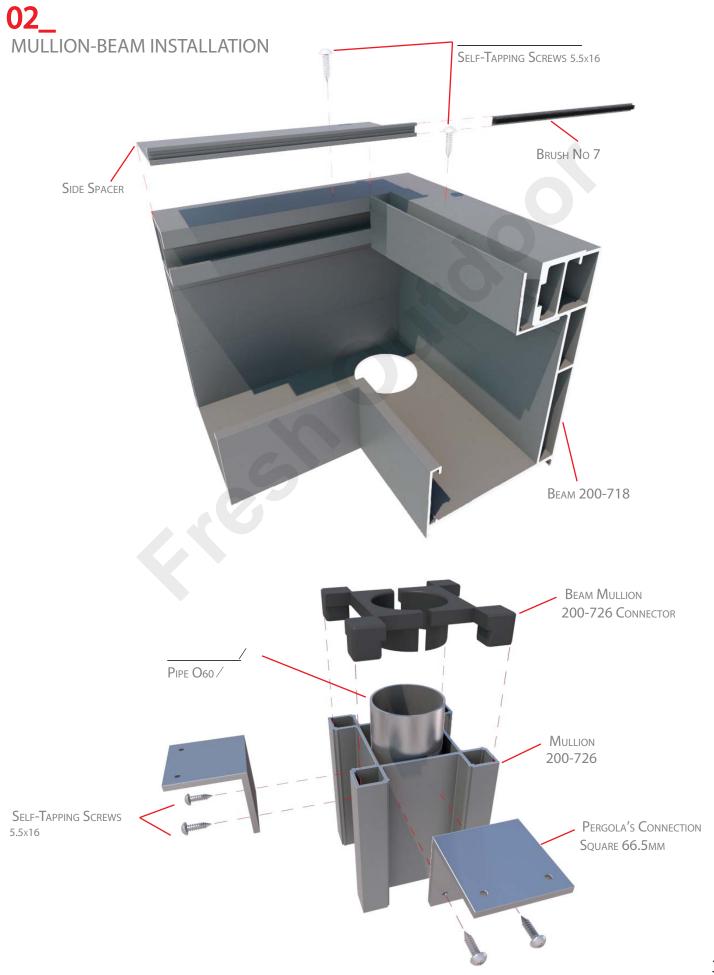


CHEMICAL FIXING
THREADED ROD M10x130

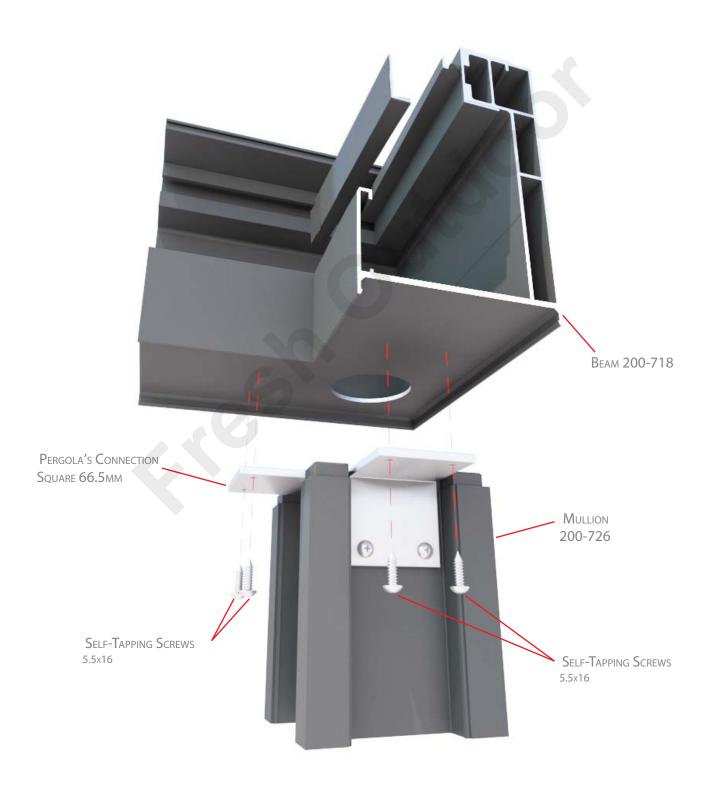








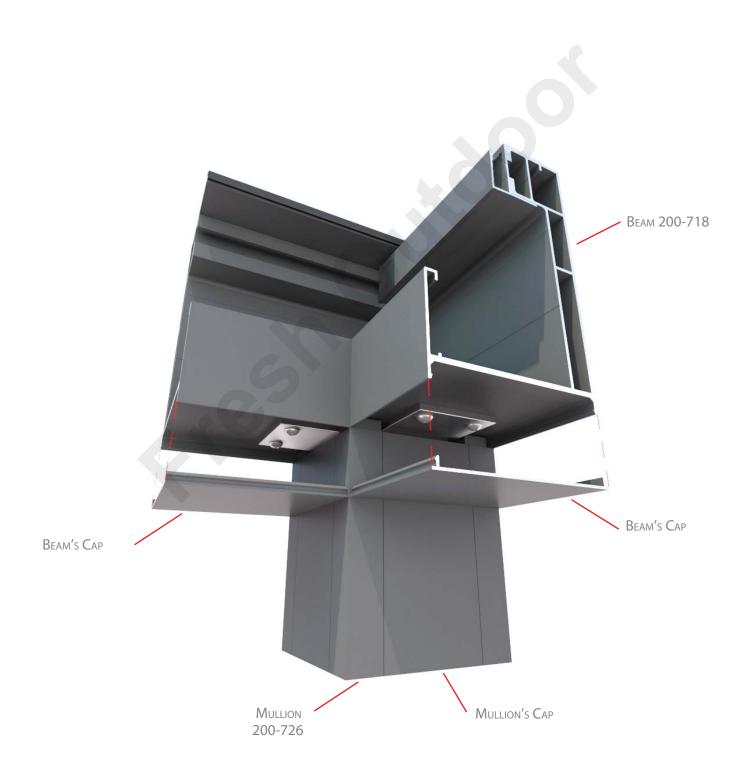










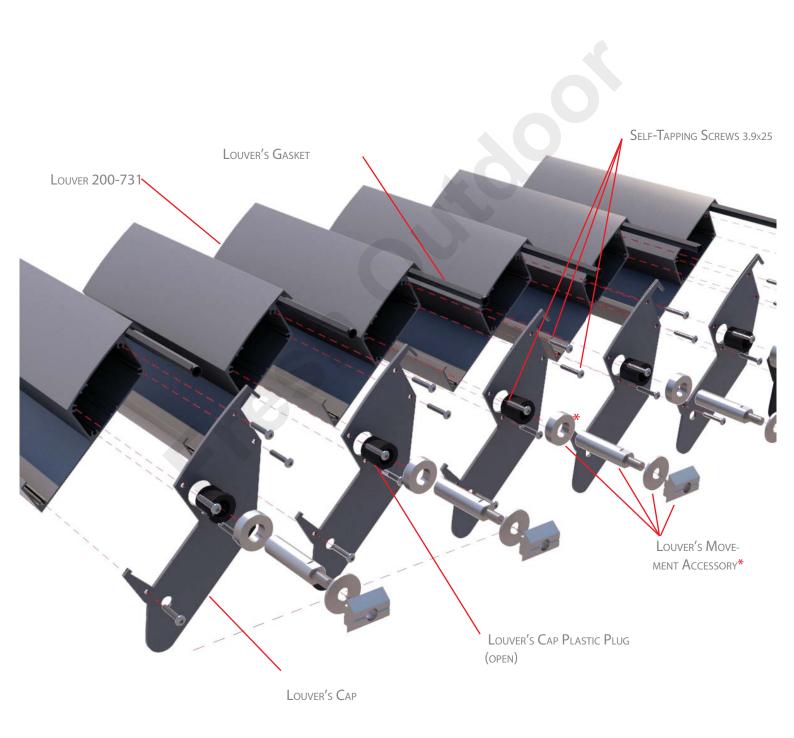








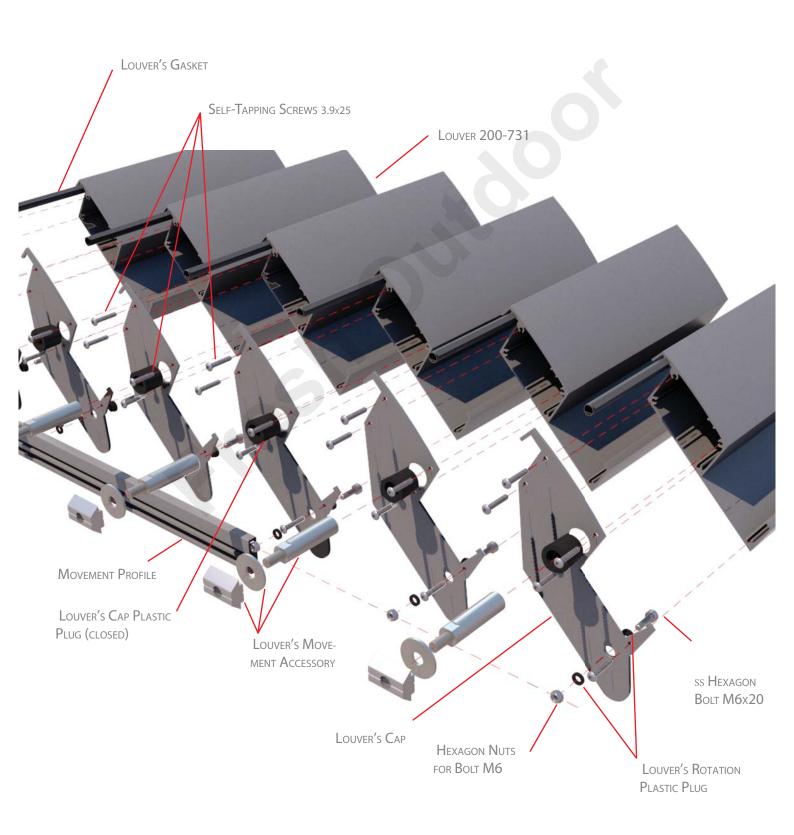
# **03\_**LOUVER ASSEMBLY (WITHOUT MOVEMENT PROFILE)



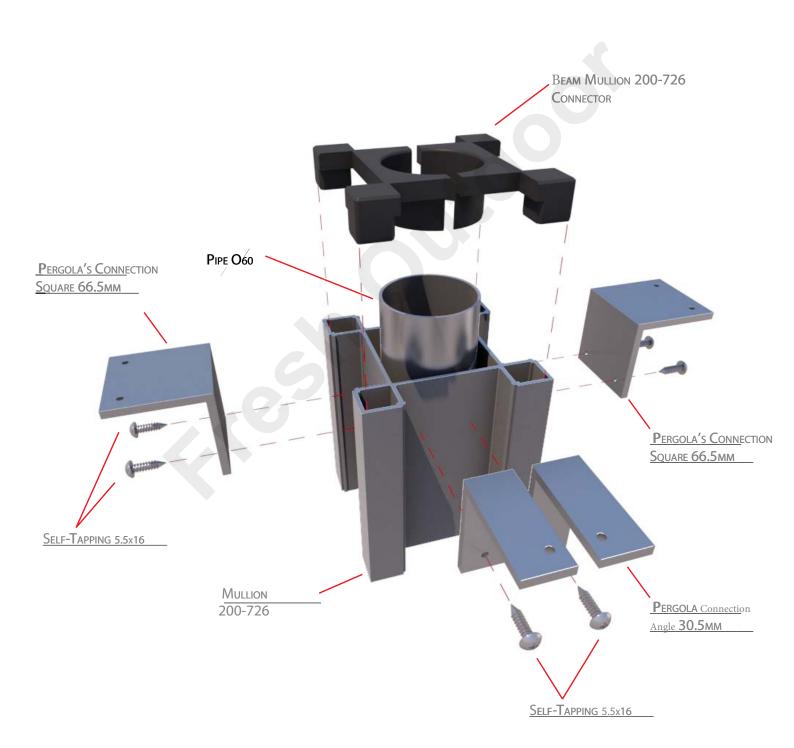
<sup>\*</sup>The spacer (aluminium ring) must be installed at 1.5mm distance from Louver's cap for the best function of the Louver.



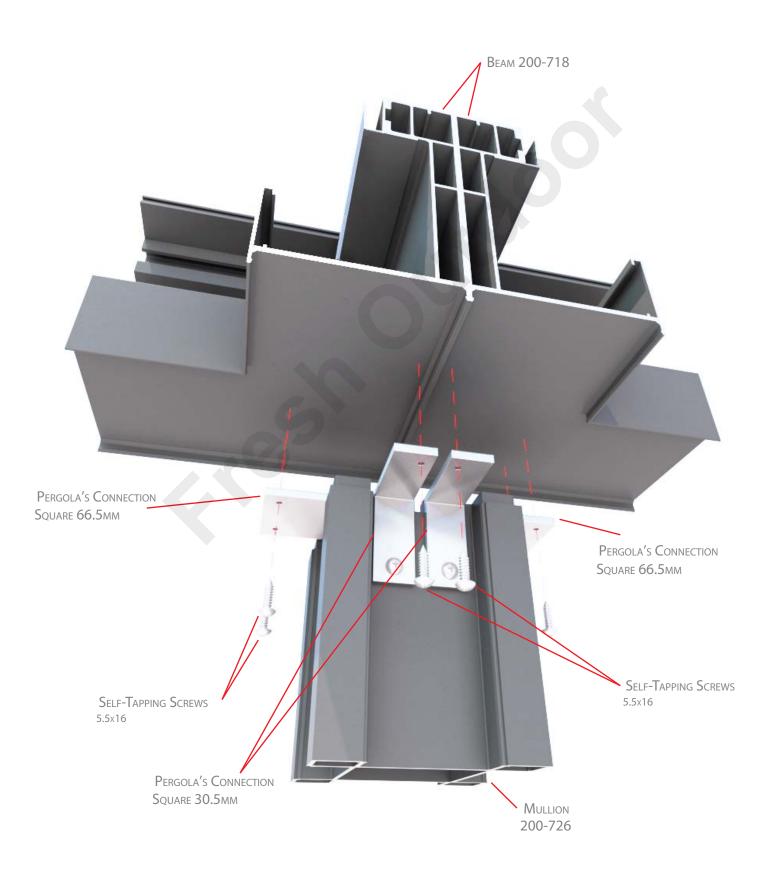
# **03\_**LOUVER ASSEMBLY (WITH MOVEMENT PROFILE)



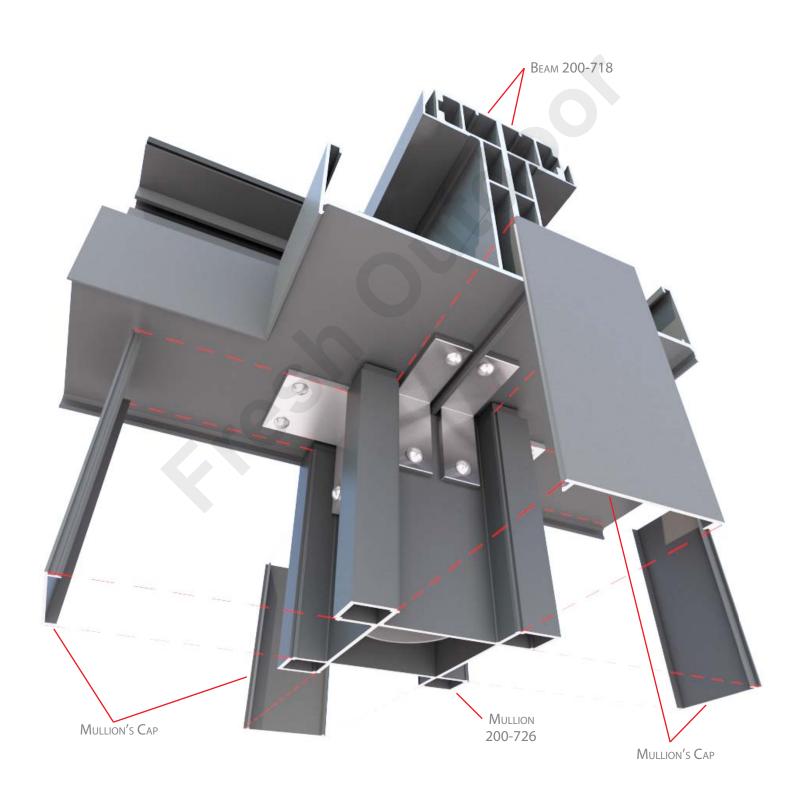




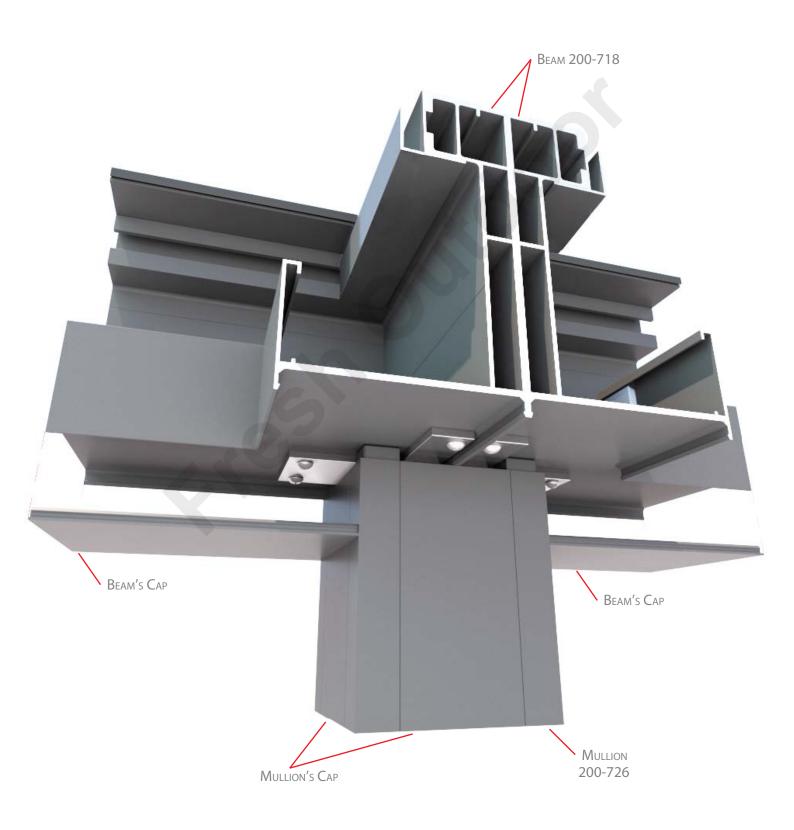




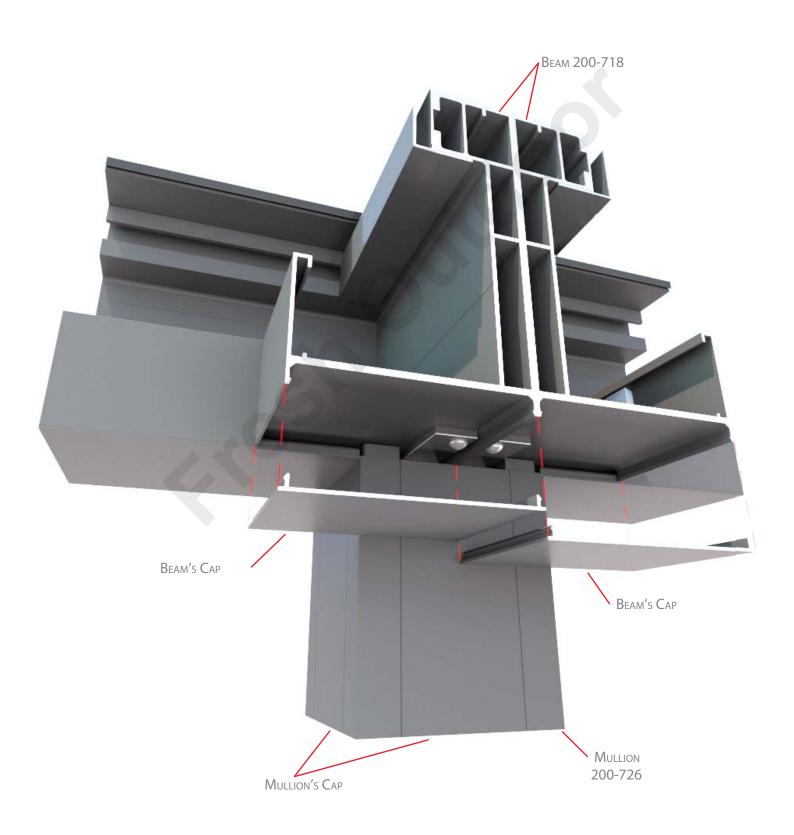




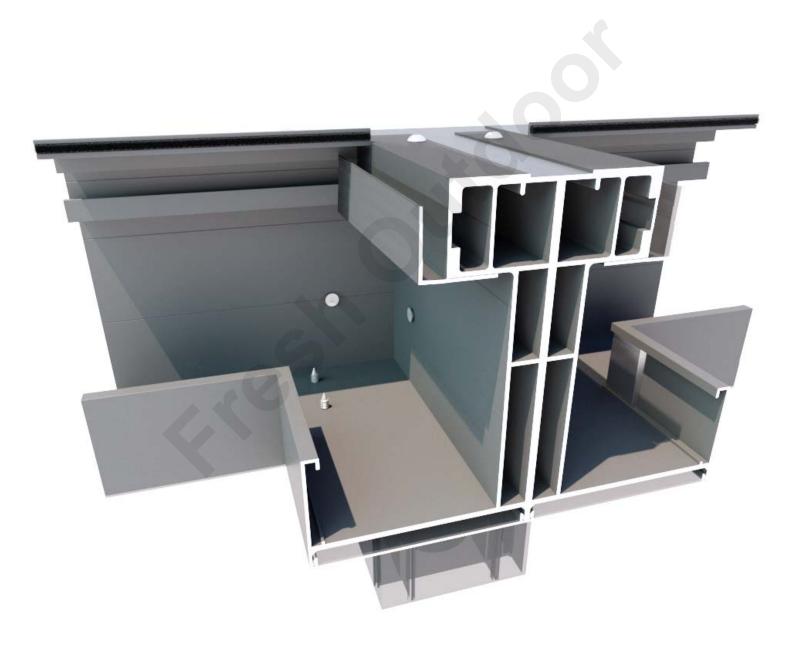




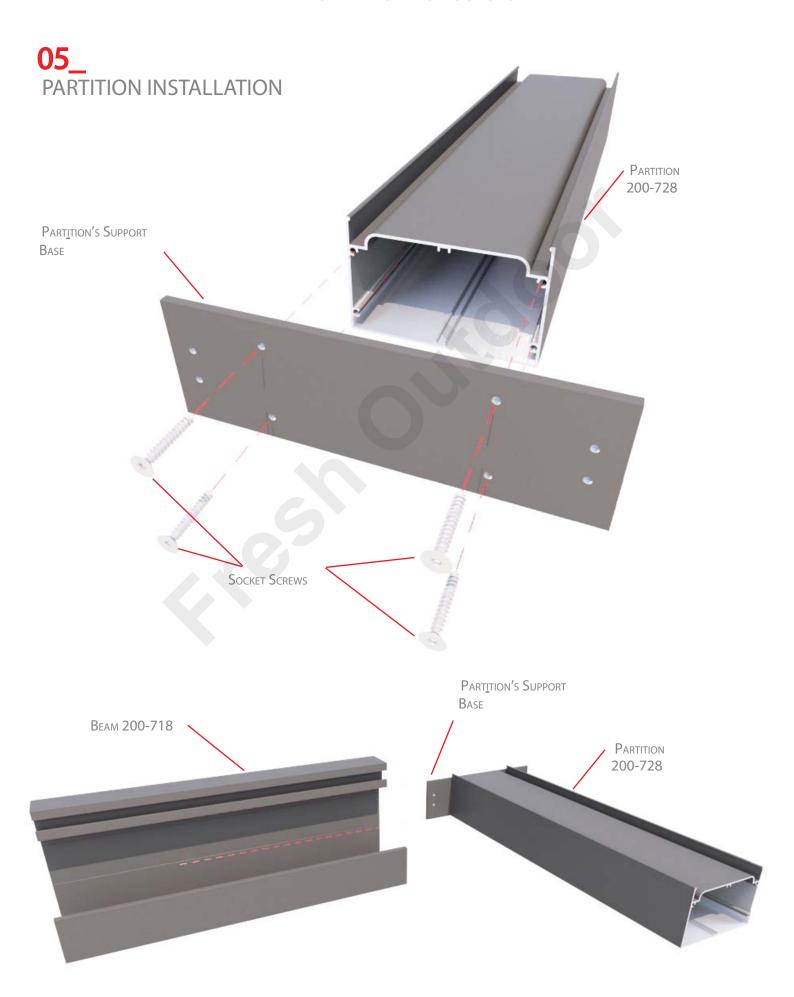






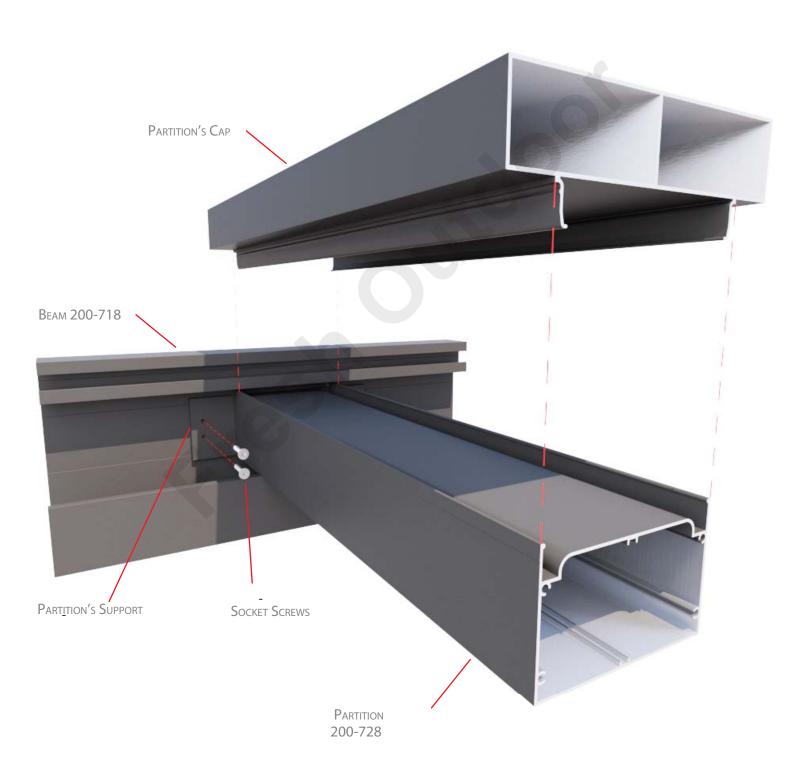








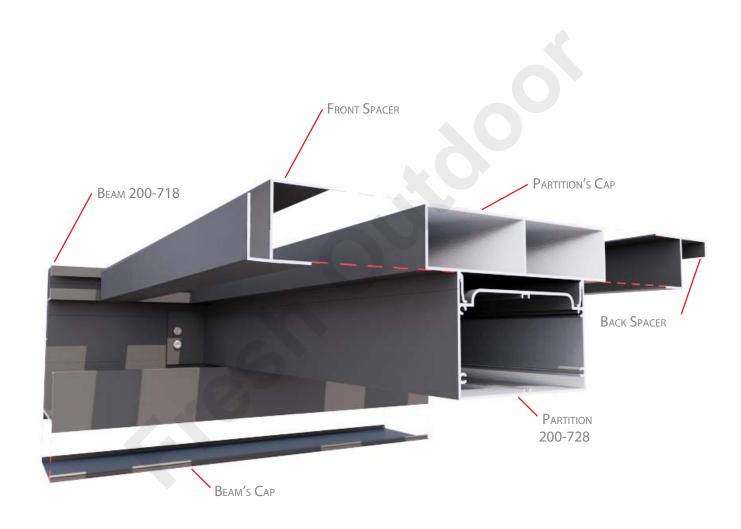
# **05\_**PARTITION INSTALLATION





05\_

## PARTITION INSTALLATION







Code	Description	Drawing
3111	ALUMINIUM LOUVER'S CAP  ATTENTION! S PECIFY THE COLOUR OF YOUR CHOICE AT THE MOMENT OF THE ORDER	
3436-1	LOUVER'S MOVEMENT ACCESSORIES  ATTENTION! ADD THREADLOCKER AT THE MOMENT OF INSTALLATION	
3436-3	LED LOUVER'S MOVEMENT ACCESSORIES ATTENTION! ADD THREADLOCKER AT THE MOMENT OF INSTALLATION	
3781	Pergola's Mullion Metallic Base Without Draining Hole	
3781-1	Pergola's Mullion Metallic Base With Draining Hole	
3789	Pergola's Connection Square 30.5mm	
3790	Pergola's Connection Square 66.5mm	
3791	Beam-Mullion's 200-726 Connector	



Code	Description	Drawing
3792	Веам's 200-718 <b>А</b> ідпмент Square(48. <b>9</b> мм)	
3796	Beam's 200-718 ConnectionSquare	
3796-1	ConnectionSquare 200-718 / 44.8m	
3797-1	Louver's RotationPlastic Plug	0
3797-2	Louver's 200-720 Qp Plastic Plug	
3116	Drainage Gutter's Caps (2 Pieces)	
3594	Louver's Gasket	Q



Code	Description	Drawing
3112	Partition's Support Base	
3113	Beams' Connector	80
3798	PERGOLA'S MOTORISED SYSTEM  (ONE FOR EACH 15M²)  ATTENTION! WITH THE USE OF A SECOND  MOTORISED SYSTEM, IT IS NECESSARY TO  USE THE "T" PROFILE TOO!	
3798-1	Motorised System's Stroke Reduction Accessory	0
3798-2	Pergola's Motorised System Base	
2425-1	Motorized System - Lever Linkage's Connector	
3784	Led Louver's Cap	
5155	Brush No 7	



Code	Description	Drawing
1128	Inox Hexagon Bolt Din 557 A2 6x20	Co January
1118	ToothedLockWashers Cone For Bolt M6	
1129	Inox Nuts A2 6x20	
3114	Receiver 24 Volt	
3114-1	Mini Remote Control	
3114-2	15CH REMOTE CONTROL	15 ×
3115	LOUVER'S MOVEMENT INSTALLATION GUIDE  *AT THE BEGINNING OF THE INSTALLA- TION MUST BE USED THE SIDE WITH THE BIGGER LENGTH. SUBSEQUENTLY, THE GUIDE MUST BE USED ON THE OPPOSITE SIDE.	



# Cutting Dimensions



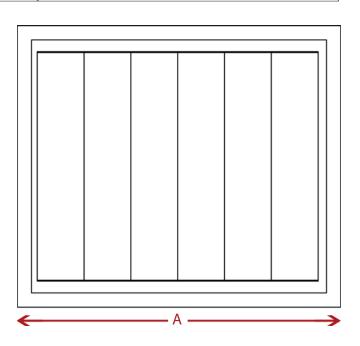
#### Table of Dimensions and No of Louvers

#### 1. Table of Dimensions for Pergola's Constructions of one Frame

Dimension A (mm)	No of Louvers	Dimensions A (mm)	No of Louvers
1440-1470	8	3880-3910	23
1610-1640	9	4040-4070	24
1770-1800	10	4210-4230	25
1930-1960	11	4370-4400	26
2090-2120	12	4530-4560	27
2260-2290	13	4690-4720	28
2420-2450	14	4850-4880	29
2580-2610	15	5010-5030	30
2740-2770	16	5180-5210	31
2910-2930	17	5340-5370	32
3070-3100	18	5500-5530	33
3230-3260	19	5670-5700	34
3390-3420	20	5830-5860	35
3560-3580	21	5990-6020	36
3720-3750	22		

<sup>\*</sup> DIMENSIONS ARE TAKEN AT THE EXTERNAL SIDE OF THE CONSTRUCTION.

<sup>\*\*</sup> FOR DIMENSIONS THAT DOES NOT EXIST IN THE TABLE, IS SUGGESTED THE USE OF RECTANGULAR TUBES TO COVER THE GAP.



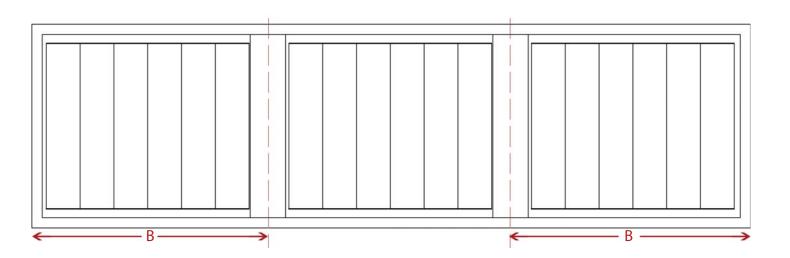


#### Table of Dimensions and No of Louvers

2. Table of Dimensions for Pergola's Constructions of one Frame (Beam- Partition)

Dimension B (mm)	No of Louvers	Dimensions B (mm)	No of Louvers
2450-2480	14	4240-4270	25
2610-2640	15	4400-4430	26
2780-2800	16	4560-4590	27
2940-2970	17	4730-4750	28
3100-3130	18	4890-4920	29
3260-3290	19	5050-5080	30
3430-3450	20	5210-5240	31
3590-3620	21	5380-5410	32
3750-3780	22	5540-5570	33
3910-3940	23	5700-5730	34
4080-4100	24	5860-5890	35

<sup>\*</sup> DIMENSIONS ARE TAKEN FROM THE EXTERNAL SIDE OF THE BEAM TO THE MIDDLE OF THE PARTITION.



<sup>\*\*</sup> FOR DIMENSIONS THAT DOES NOT EXIST IN THE TABLE, IS SUGGESTED THE USE OF RECTANGULAR TUBES TO COVER THE GAP.

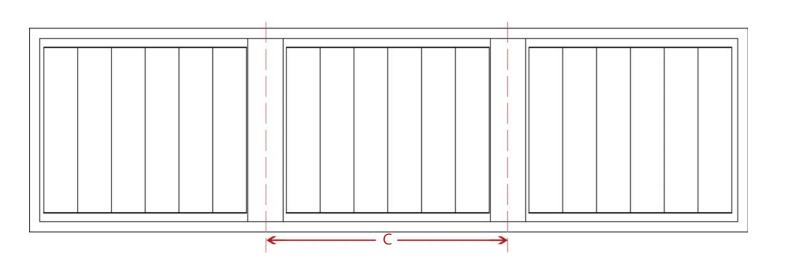


#### Table of Dimensions and No of Louvers

**3.** Table of Dimensions-for Pergola's Constructions of one Frame (Partition - Partition)

Dimension C (mm)	No of Louvers	Dimension C (mm)	No of Louvers
2490-2520	14	4280-4300	25
2650-2680	15	4440-4460	26
2810-2840	16	4600-4630	27
2980-3000	17	4760-4790	28
3140-3160	18	4930-4950	29
3230-3260	19	5090-5110	30
3460-3490	20	5250-5280	31
3630-3650	21	5410-5440	32
3790-3810	22	5580-5600	33
3950-3980	23	5740-5760	34
4110-4140	24	5900-5930	35

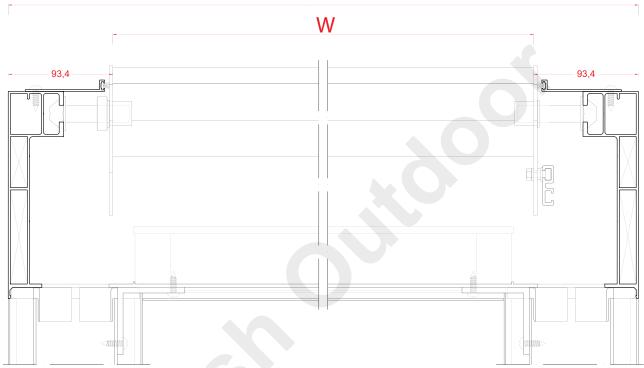
<sup>\*</sup> THE DIMENSIONS ARE TAKEN FROM THE MIDDLE OF ONE PARTITION TO THE MIDDLE OF THE OTHER.



<sup>\*\*</sup> For dimensions that does not exist in the table, is suggested the use of rectangular tubes to cover the gap.

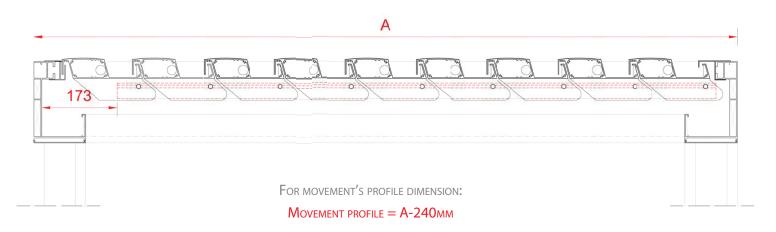


Louver's Cutting
Dimension



For Louver's Calculation(W): from the whole length of the Louver(L), subtract 187mm.

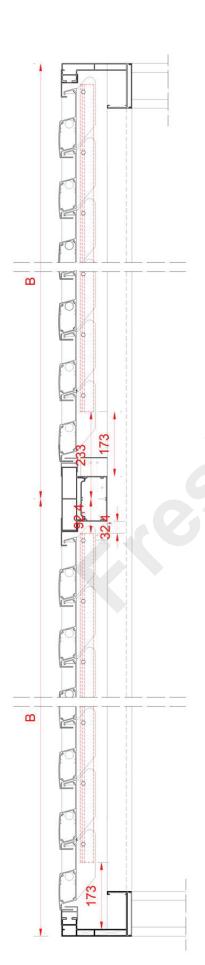
#### Movement's Profile Cutting Dimension



Installation movement profile: The profile must be installed at 173mm from the beam's inside (Attention! The Louver's rotation must be as in the drawing)



# Cutting Instructions



Pergola with partition - Movement's Profile Cutting

DIMENSION

FOR MOVEMENT'S PROFILE DIMENSION:

Movement Profile = B-290mm

For movement's profile dimension:

Movement profile = B-290mm

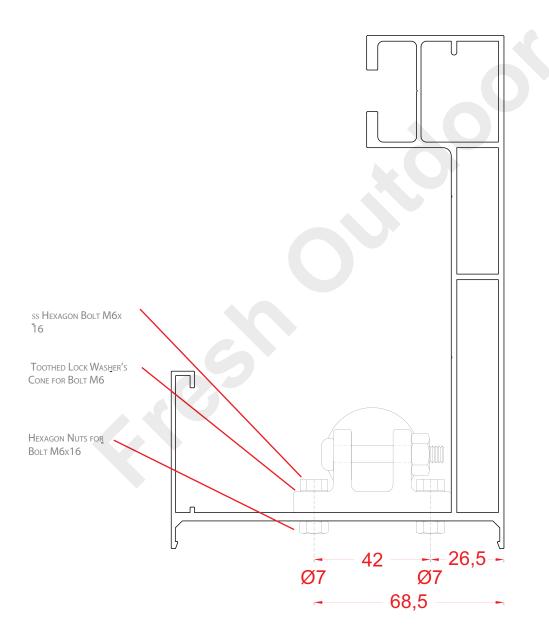
THE BEAM'S INSIDE. ATTENTION THE PROFILE MUST STOP AT THE CAP OF THE LAST LOUVER. INSTALLATION MOVEMENT PROFILE: THE PROFILE MUST BE INSTALLED AT 173MM FROM

(Attention! The Louver's rotation must be as in the drawing)

INSTALLATION MOVEMENT PROFILE: THE PROFILE MUST BE INSTALLED AT 173MM FROM PARTITION'S INSIDE(ATTENTION! THE LOUVER'S ROTATION MUST BE AS IN THE DRAWING)



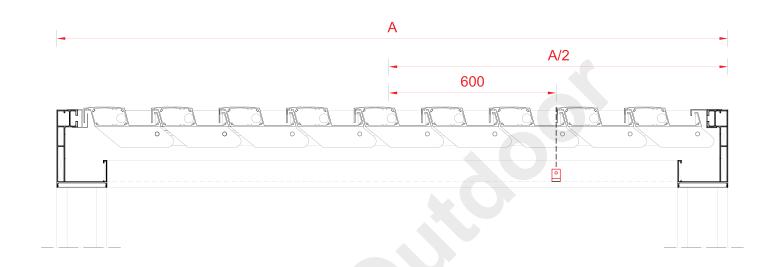
#### MOTOR PLACEMENT



Nt has to be in the center of the beam that is vertical to the louvers. For its placement is demanded the drealling of the beam at 26.5 mm and 68.5 mm from it's outer side.

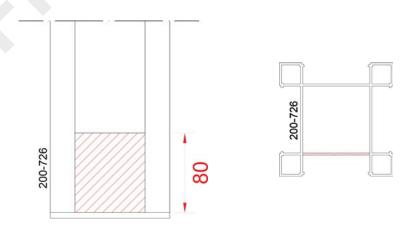


#### MOTOR PLACEMENT



Pergola's motorised system base(code\_3798-2) must be installed 600mm from the center of the beam. (Attention! The Louver's rotation must be as in the drawing)

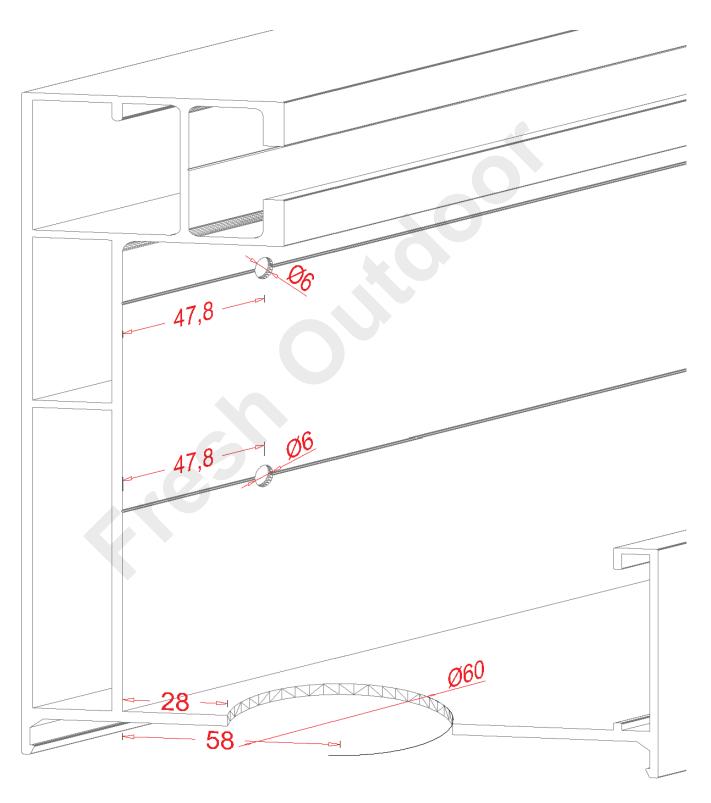
#### Pergola's Mullion Metallic Base with Draining Hole(code 3781-1)



FOR MULLIONS METALLIC BASE WITH DRAINING HOLE (CODE 3781-1) INSTALLATION, IT IS REQUIRED TO SUBTRACT 80mm from the inside of the Mullion (200-726).



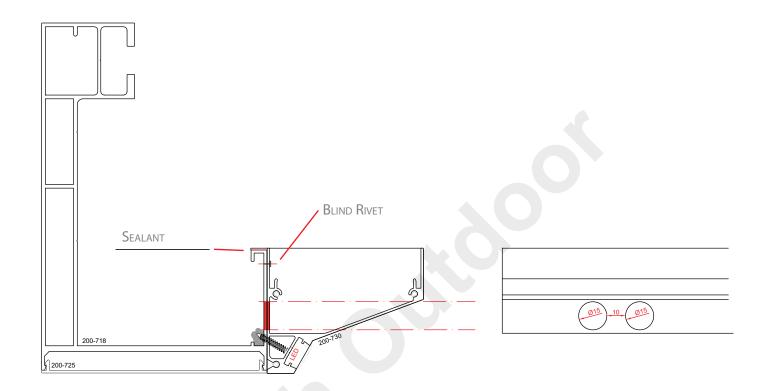
# Press Machine



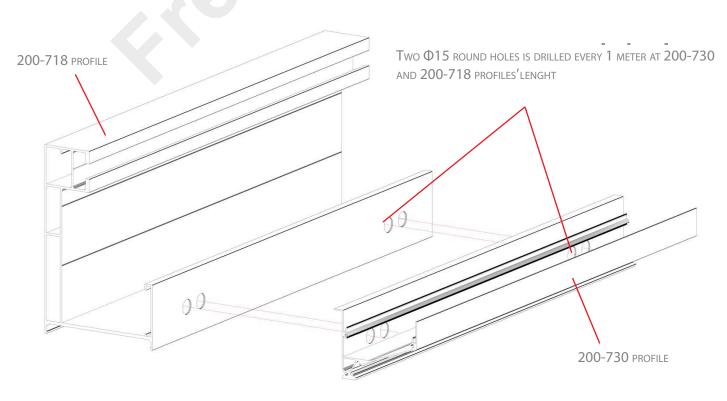
- 1. WATER DRAINAGE OPENING
- 2. PIERCING FOR CONNECTION SQUARE



## 200-730 PROFILE'S INSTALLATION INSTRUCTIONS



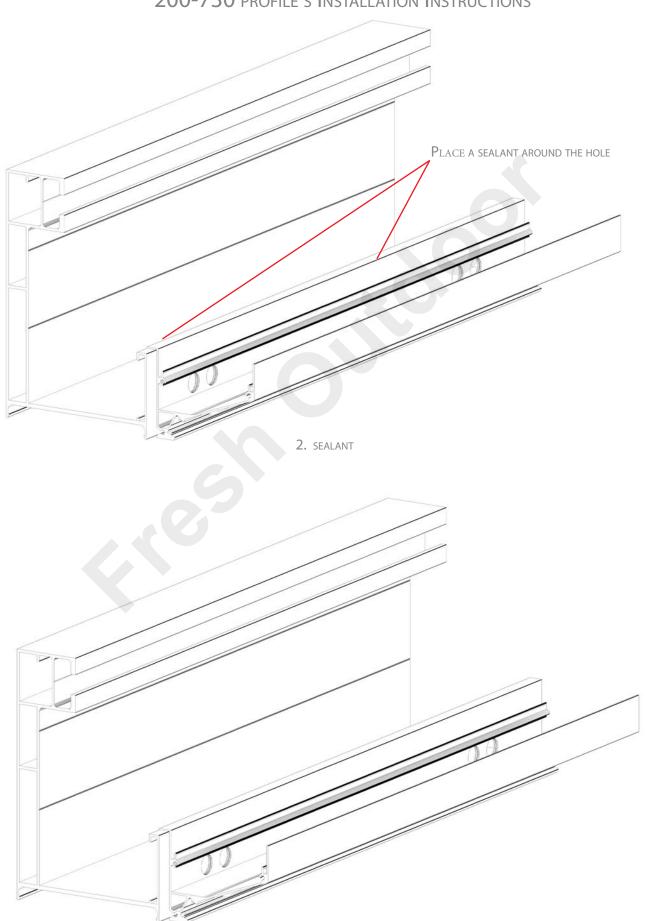
200-730 PROFILE'S INSTALLATION AT 200-718 PROFILE



1. WATER DRAINAGE OPENING



## 200-730 PROFILE'S INSTALLATION INSTRUCTIONS



3. FINAL INSTALLATION