

# TEXAS ALUMINUM SYSTEMS, LLC

## Installation Instructions

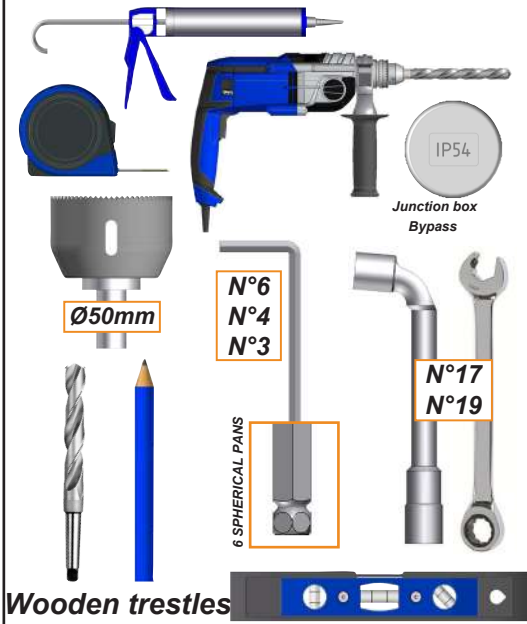
### Aluminum Louvers Roof Pergola Perpendicular Louvers



3 people  
One day

## Preparing the Pose

Tools needed for laying  
off concrete pads and wedging.



### REQUIREMENTS



**CAUTION**, Read the following instructions completely before starting to install your pergola. Your security depends on it.

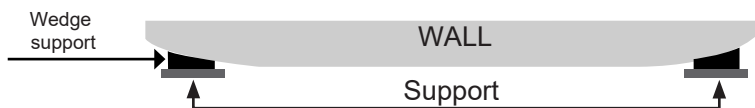


**BEFORE BEGINNING THE INSTALLATION**, check the contents of the packages received if an item concerns you or is missing during this inspection, contact our technical service as soon as possible (do not mount the structure if any items are defective.)

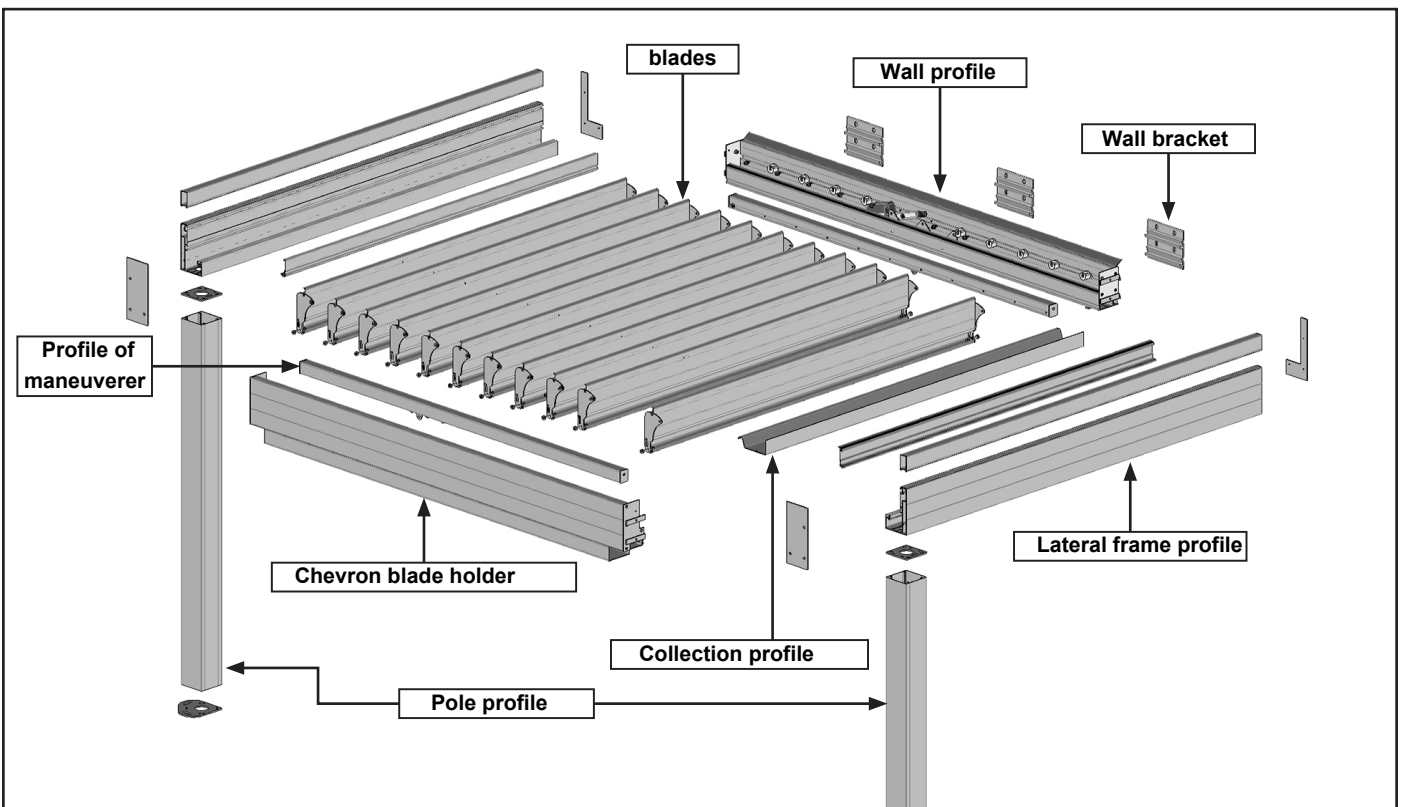


- ! Check the flatness of your wall. In the case of a hollow or curved wall, make a solid wedging of the wall box in order to obtain a correct alignment.
- In the absence of concrete slab on the ground, make concrete pads at each foot, in order to fix the supports.
- Dimension and composition of concrete pads:
  - 63cm x 63cm x 63cm (500Kg) + REINFORCEMENT.

**Attention**, take into account the slope of your terrace for the installation of the bioclimatic pergola Architect. Calibrate the ground fixtures or change your installation height to level the structure at 0°.



## The bioclimatic pergola Architect



## Rooms.



**S27502 :**  
**Nb: 3 per product**



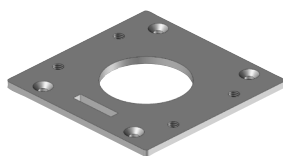
**JBSO4507:**  
**Nb: 2 per product**



**JBSO4506:**  
**Nb: 2 per product**  
**(Right and left piece)**



**ST4502:**  
**Nb: 2 per product**



**ST47:**  
**Nb: 2 per product**



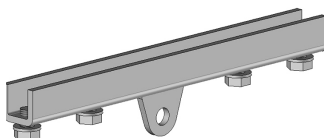
**BSOVER01:**  
**Nb: 2 per product**  
**Premature on PBSO41 04**



**BSO4902:**  
**Nb: 2 per product** **Premature**  
**on PBSO41 04 (Right-hand**  
**piece on the left)**



**BSO4303:**  
**Nb: 2 per product**  
**Premade on PBSO41 04**  
**(Right and left piece)**



**BSO4202:**  
**Nb: 2 per product**  
**Premade on PBSO42**  
**(Right and left piece)**

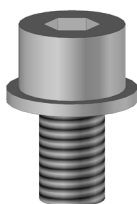


**PLB9041:**  
**Nb: 2 by drainage**

## The screws.



**DIN7982ST5.5x38:**  
**Nb: 8 per pole**



**DIN912M8x14 + Washer Ø8**  
**Nb: 4 per pole**



**M8 bolt: Nb: 2**  
**per span**  
**Prepped on**  
**BSO4902**



**Bolt PLV2266:**  
**Nb: 2 per bay** **Premade**  
**on BSOVER04**



**DIN7982ST4.2x22**  
**Nb: 2 per product**



**DIN7982ST4.8x25:**  
**Nb: 12 per product**

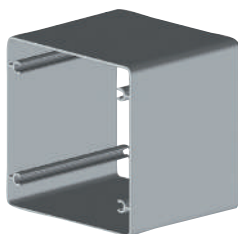


**DIN7380M8x20**  
**Nb: 2 per blades**  
**PBSO4306**

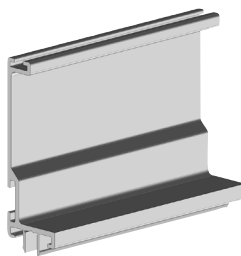


**REG2**  
**Nb: 3 per product**

## Profiles.



**PA34:**  
**Nb: 2 per product**



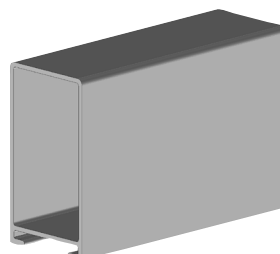
**PBSO47 :**  
**Nb : 2 per product**



**PBSO49 :**  
**Nb : 1 per product**

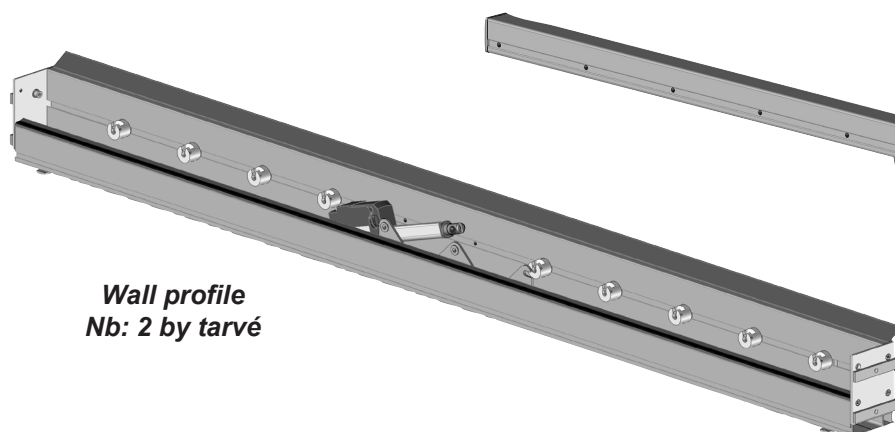


**PBSO4503 :**  
**Nb : 2 per product**

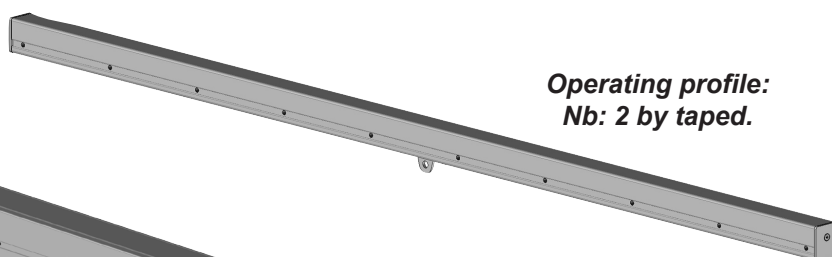


**PBSO4702:**  
**Nb : 2 per product**

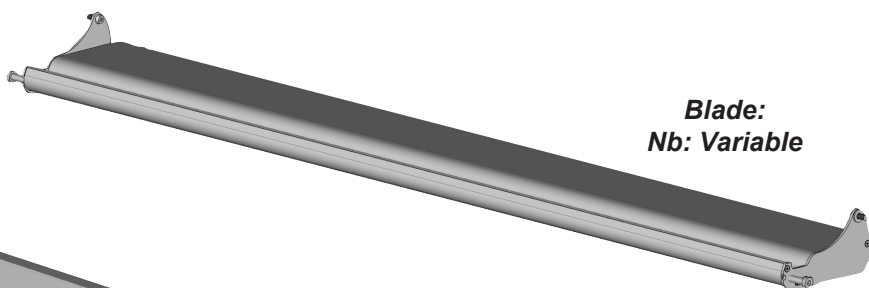
## Sets.



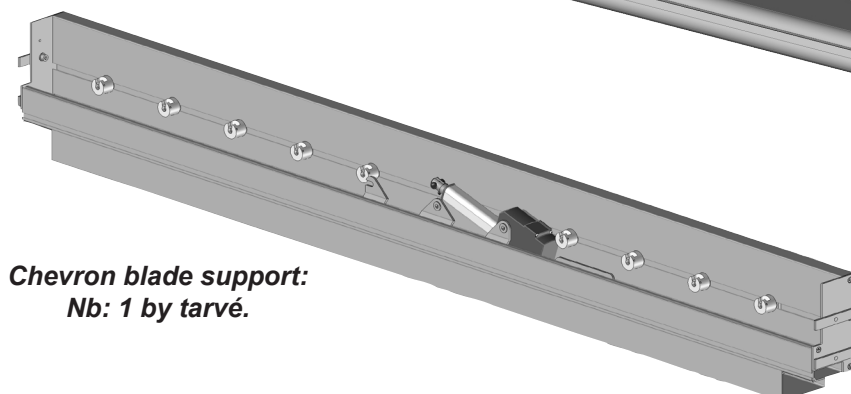
**Wall profile**  
**Nb: 2 by tarvé**



**Operating profile:**  
**Nb: 2 by taped.**

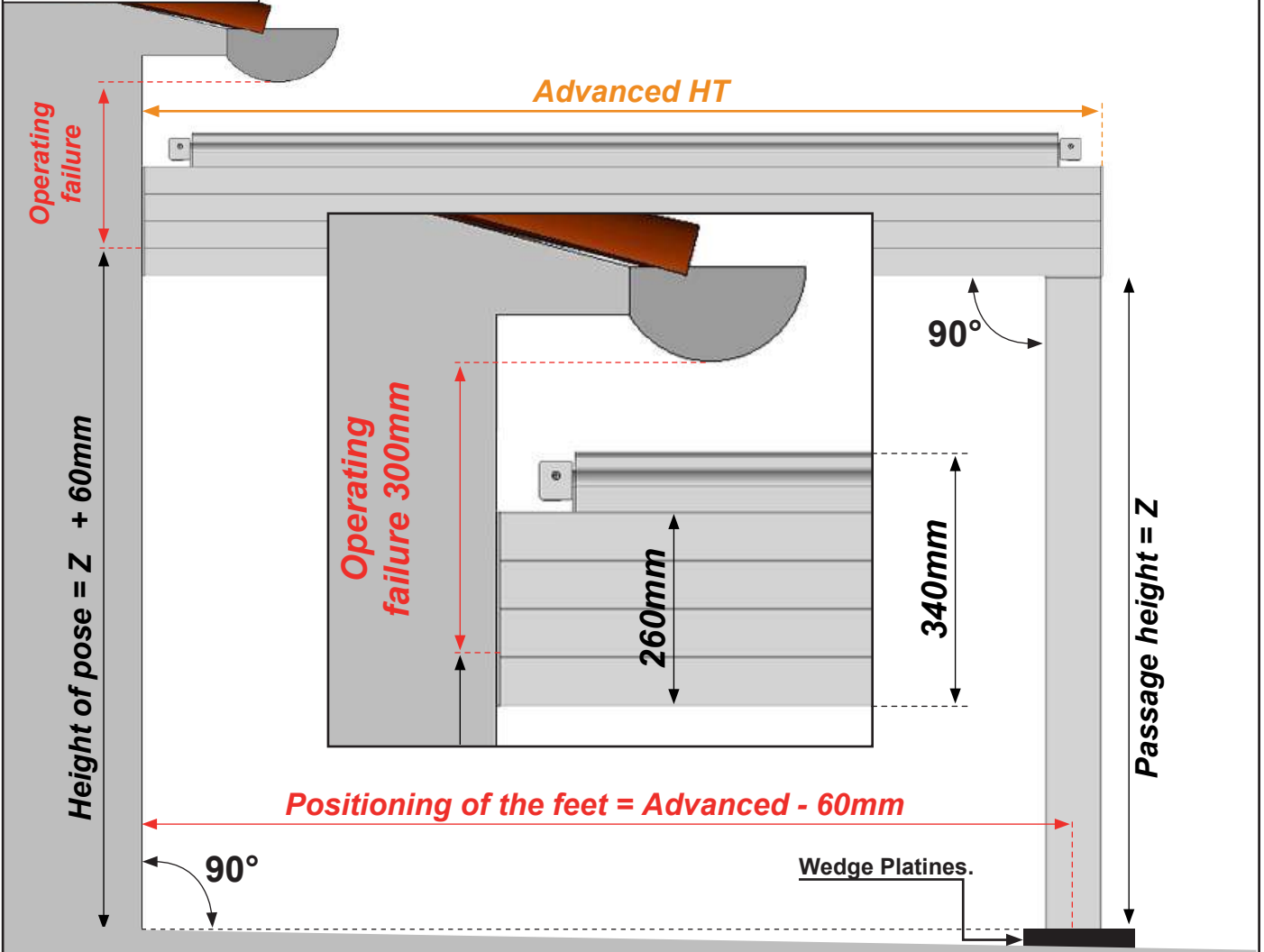


**Blade:**  
**Nb: Variable**

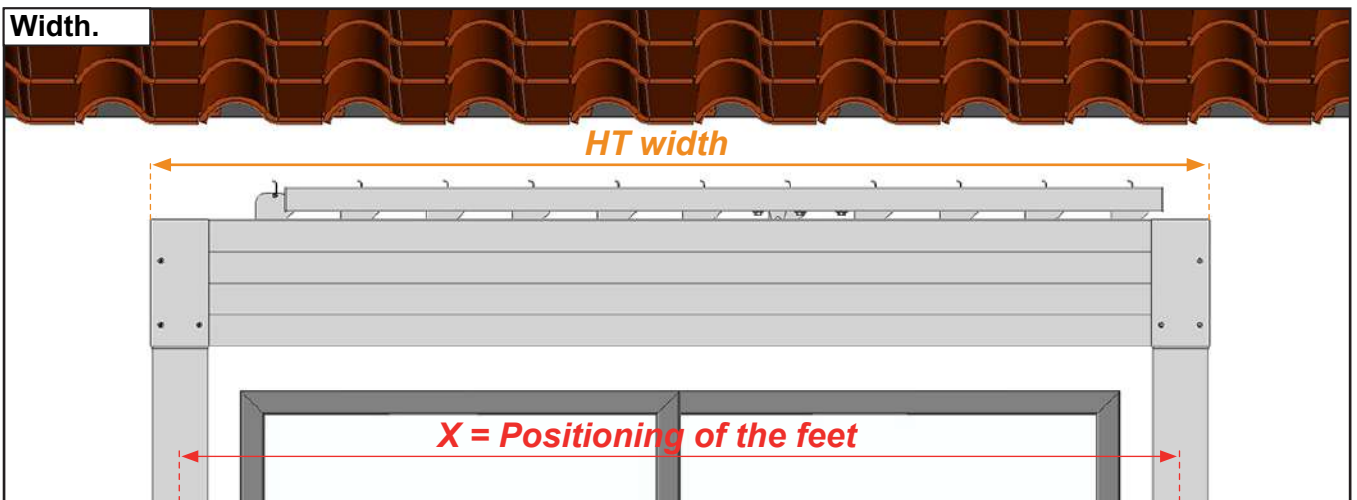


**Chevron blade support:**  
**Nb: 1 by tarvé.**

## Scenario.



## Width.



Blades	Advanced	X	Blades	Advanced	X	Blades	Advanced	X
5	1115mm	1000mm	15	2865mm	2750mm	25	4615mm	4500mm
6	1290mm	1175mm	16	3040mm	2925mm	26	4790mm	4675mm
7	1465mm	1350mm	17	3215mm	3100mm	27	4965mm	4850mm
8	1640mm	1525mm	18	3390mm	3275mm	28	5140mm	5025mm
9	1815mm	1700mm	19	3565mm	3450mm	29	5315mm	5200mm
10	1990mm	1875mm	20	3740mm	3625mm	30	5490mm	5375mm
11	2165mm	2050mm	21	3915mm	3800mm	31	5665mm	5550mm
12	2340mm	2225mm	22	4090mm	3975mm	32	5840mm	5725mm
13	2515mm	2400mm	23	4265mm	4150mm	33	6015mm	5900mm
14	2690mm	2575mm	24	4440mm	4325mm			

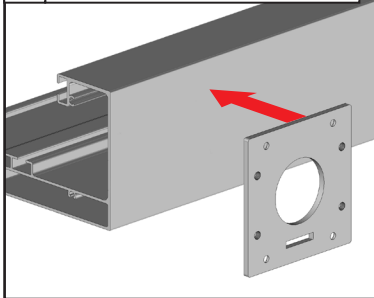
## Mechanization of water evacuation and mechanization of the fixing of poles.

This operation is to be carried out only if the mechanizations have not been carried out by us.

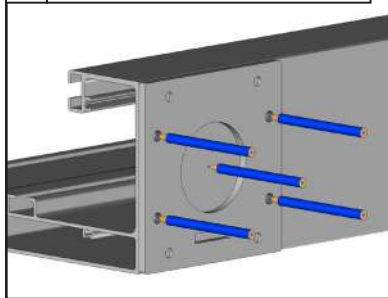
**Attention**, the evacuation mechanizations are coaxial with the poles. Make sure they are in good position before going on.

Evacuation to be carried out at the level of each post.

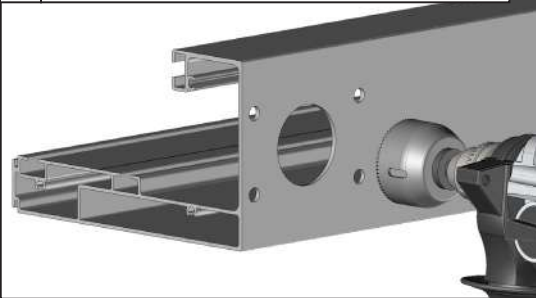
### A Position the plate.



### B Mark the holes.



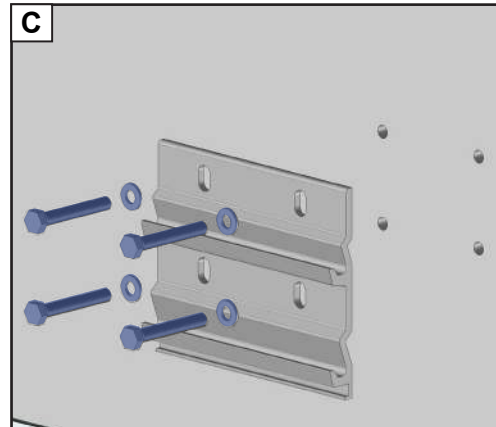
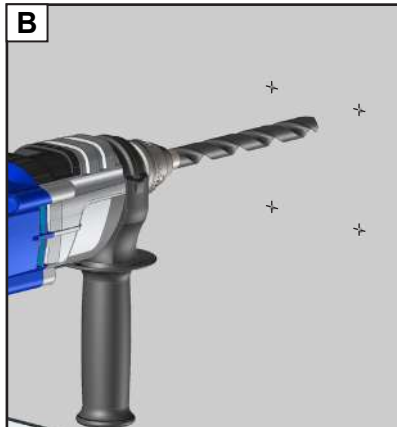
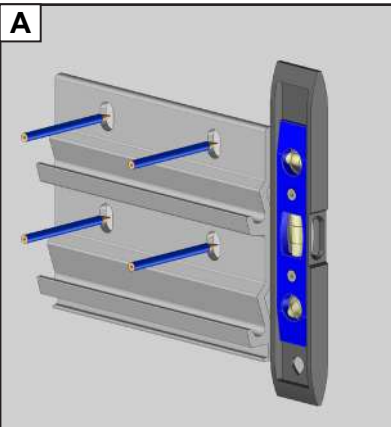
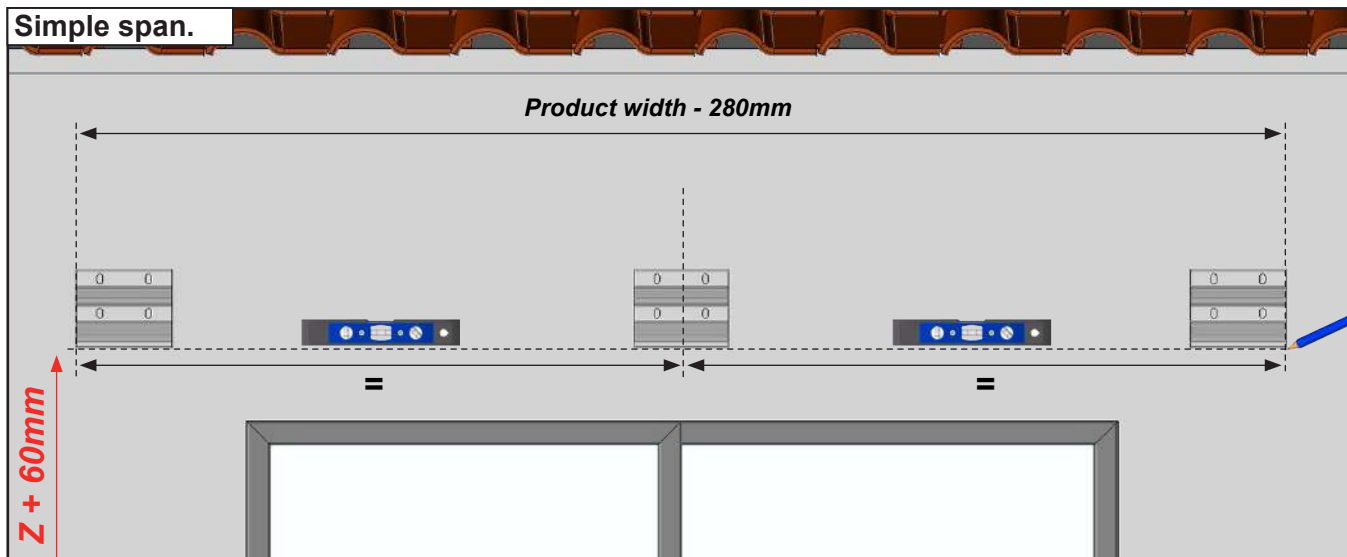
### C Perceur 1xØ50mm + 4xØ9mm.



## 1 Laying wall brackets.

The wall brackets are positioned on the wall in a balanced way at each span. 3 wall brackets are to be fixed by span.

### Simple span.



Adapt the attachment to the nature of the wall. Fixing with Ø10mm screws. Kit of screws and washers not supplied. In the case of installation using a chemical sealing kit, refer to the instructions for use of the product used.

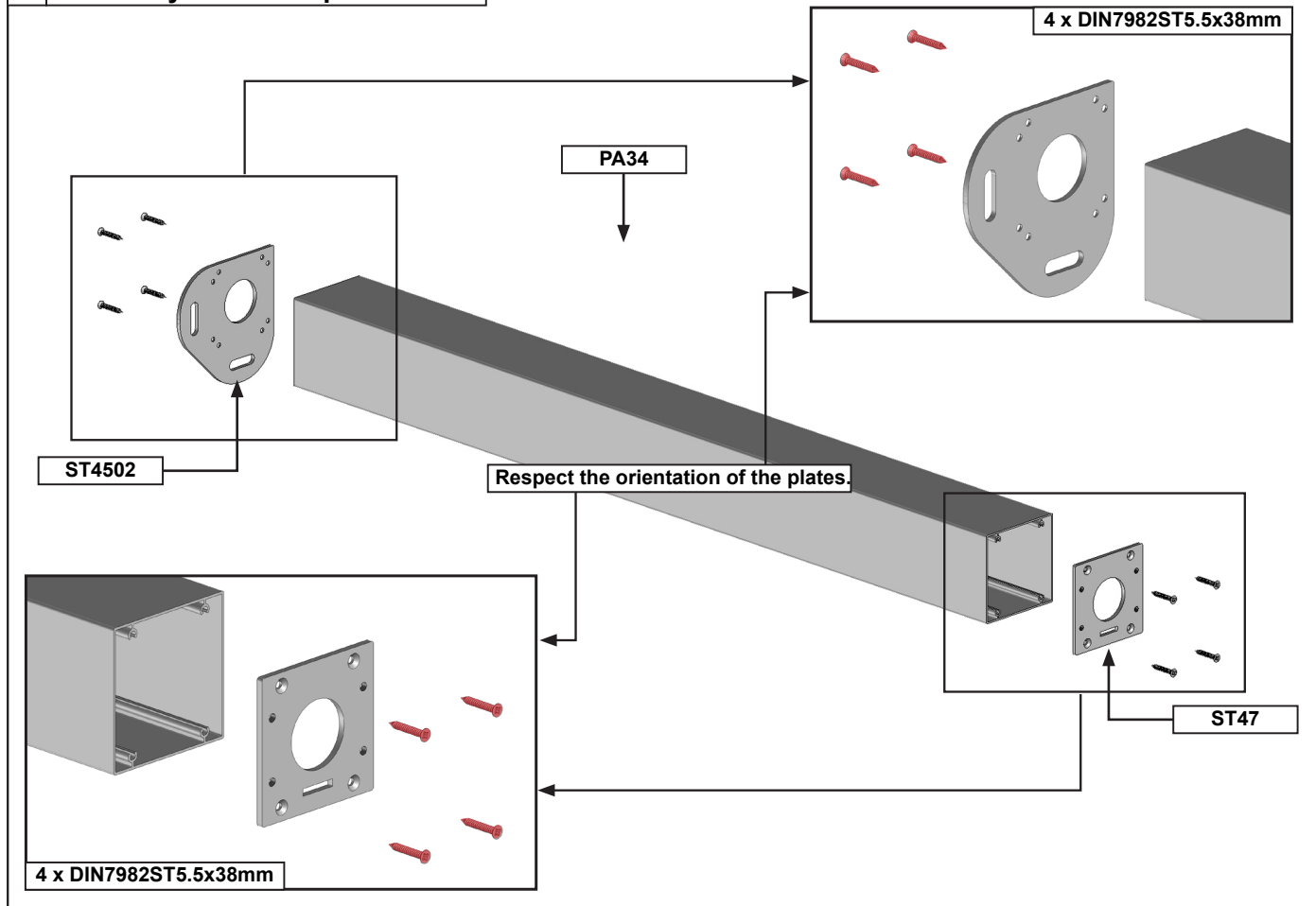
### IMPORTANT :

Perform level control and alignment of the wall brackets before proceeding with the installation. , reposition the turntables not level

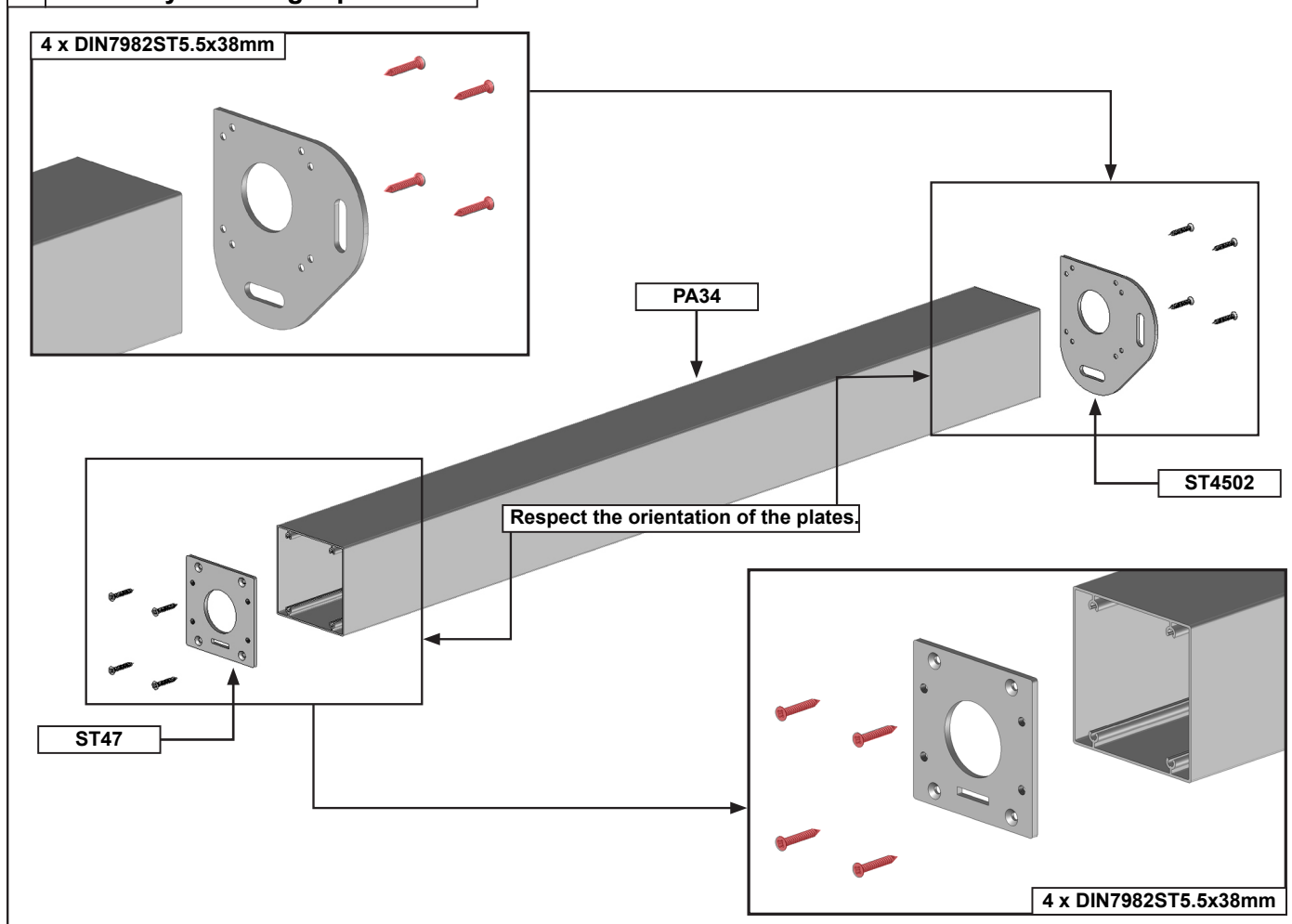
Control ☒ continue laying the pergola.

Control ☐ reposition the decks not level or misaligned.

## 2 Assembly of the left pole.



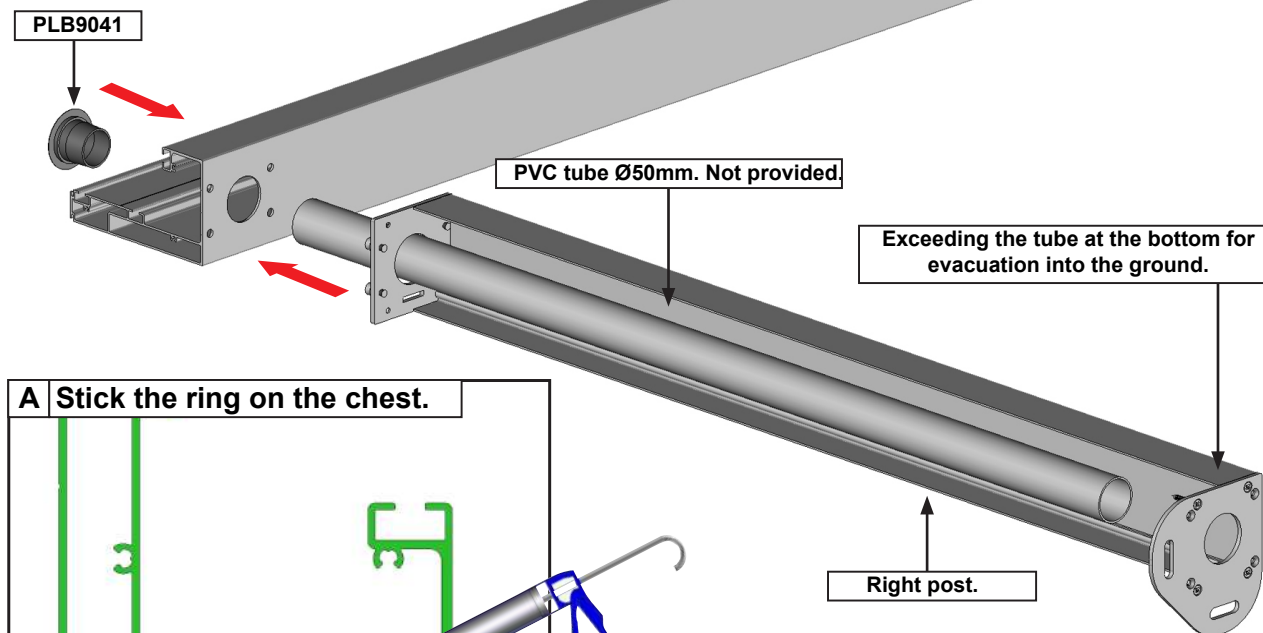
## 3 Assembly of the right post.



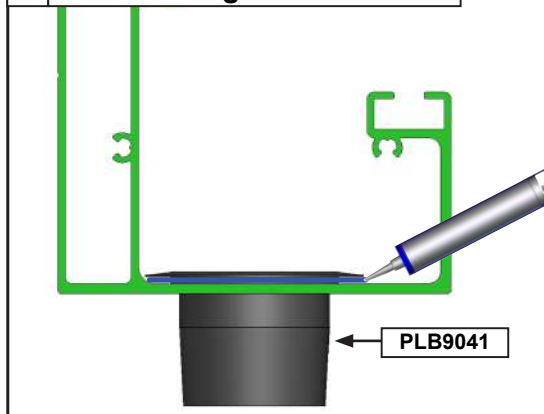


#### 4 Assembly of the left frame. Example with straight post + drainage in the soil.

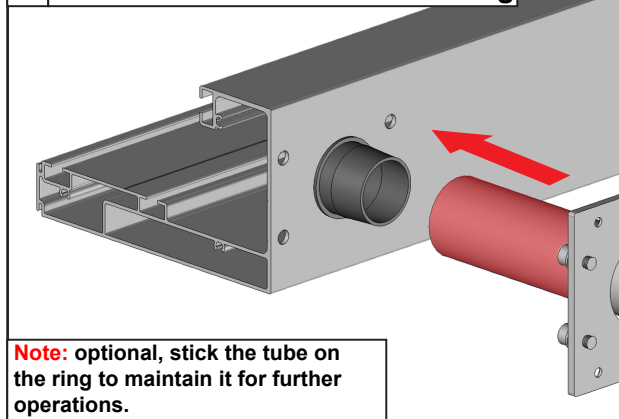
**Note :** perform these operations for the right frame also.



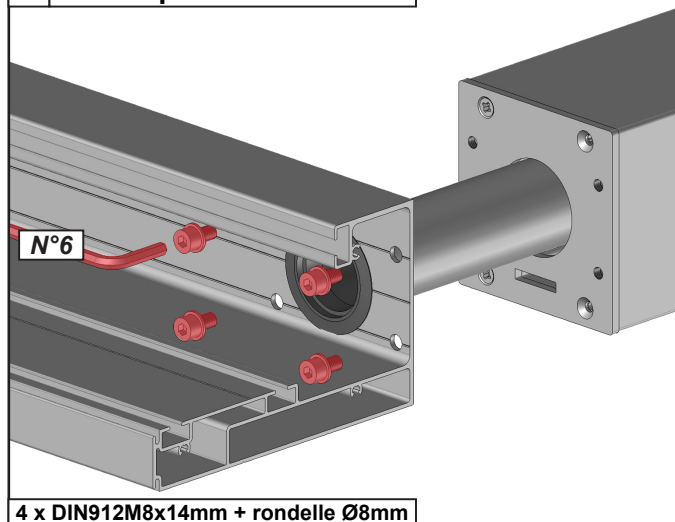
##### A Stick the ring on the chest.



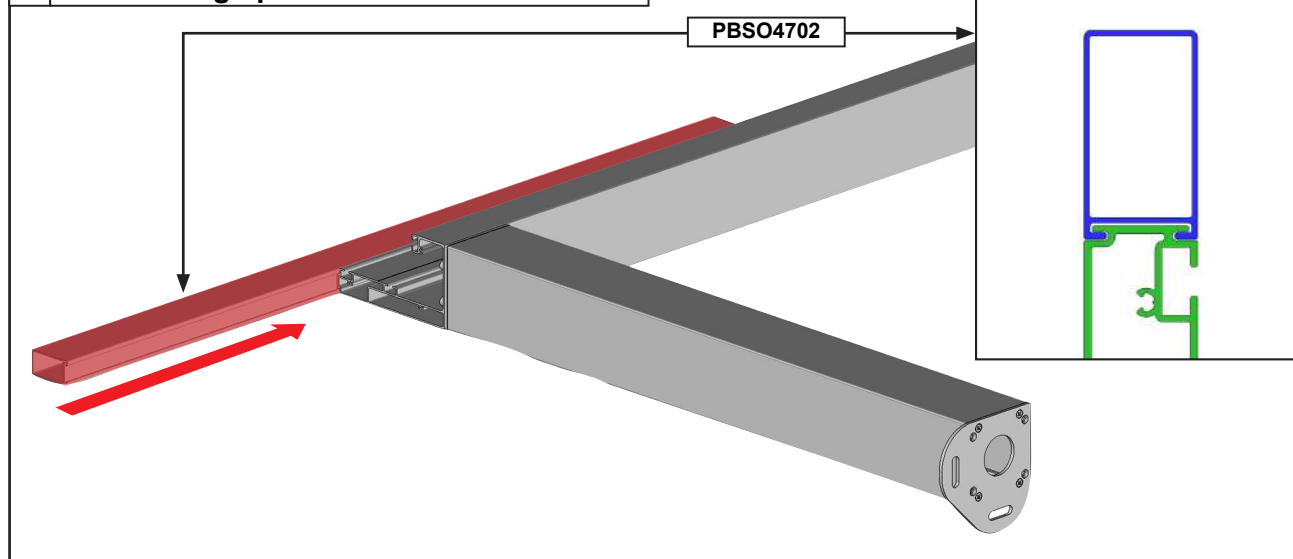
##### B Guide the PVC tube onto the ring



##### C Fix the pole to the chest.



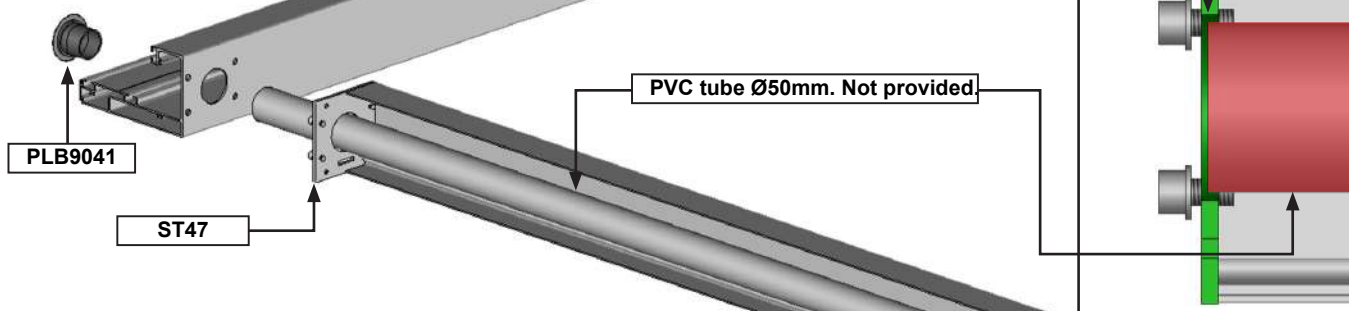
##### D Slide the high profile onto the left frame.



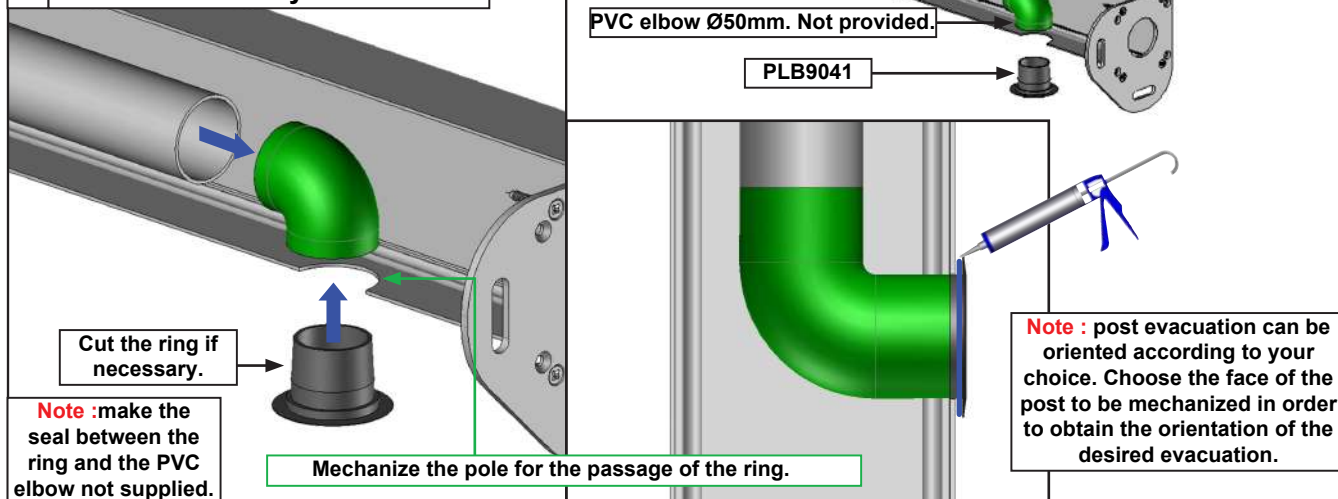
## 5 Assembly of the left frame. Example with straight post + drain elbow.

**Note :** determine the face where the water discharge will be located. **Attention,** the evacuation of water must be directed towards the outside of the pergola. Perform these operations for the right frame as well.

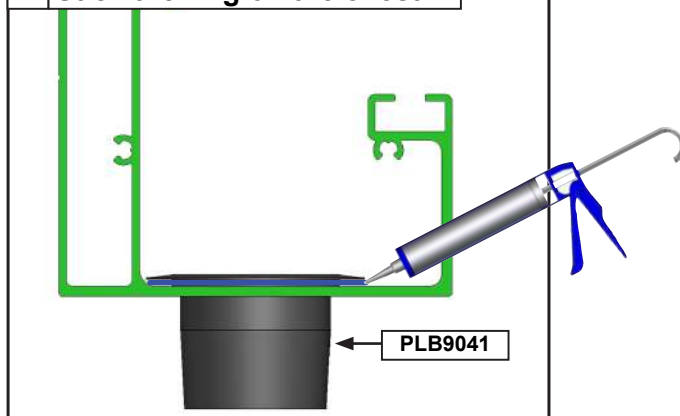
**Note :** determine the length of your PVC tube in order to have a 3mm clearance with the ST47 turntable.



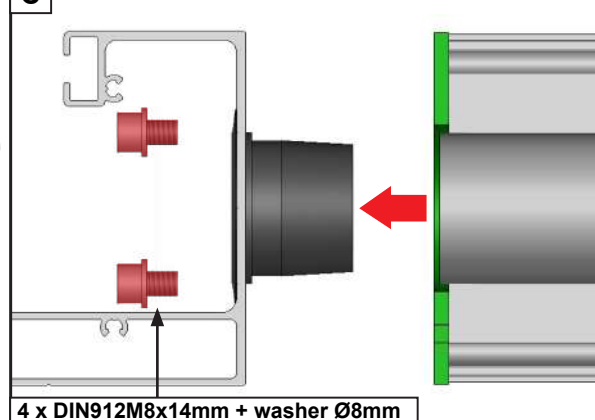
### A Make the assembly of the elbow.



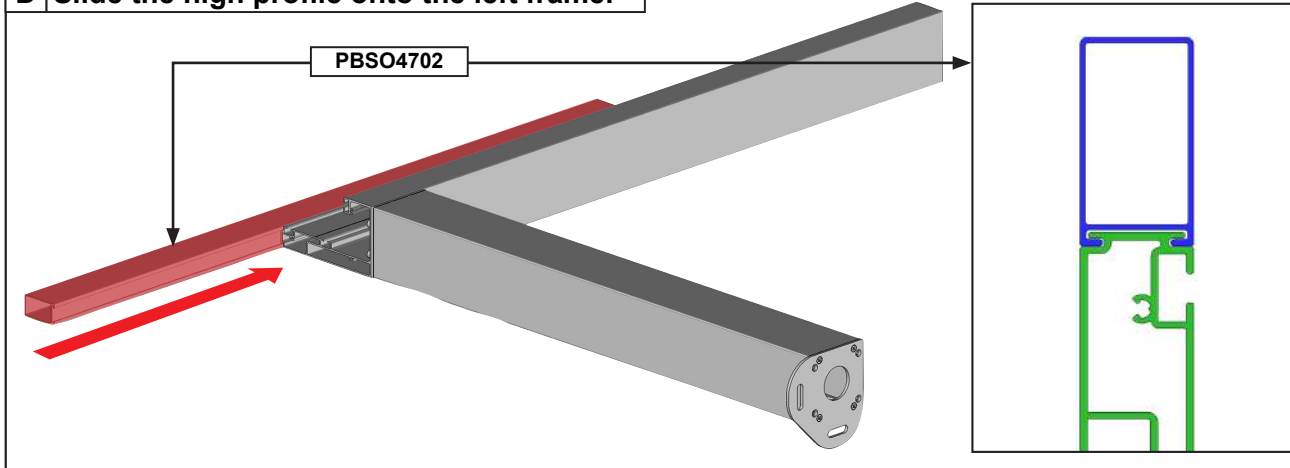
### B Stick the ring on the chest.



### C

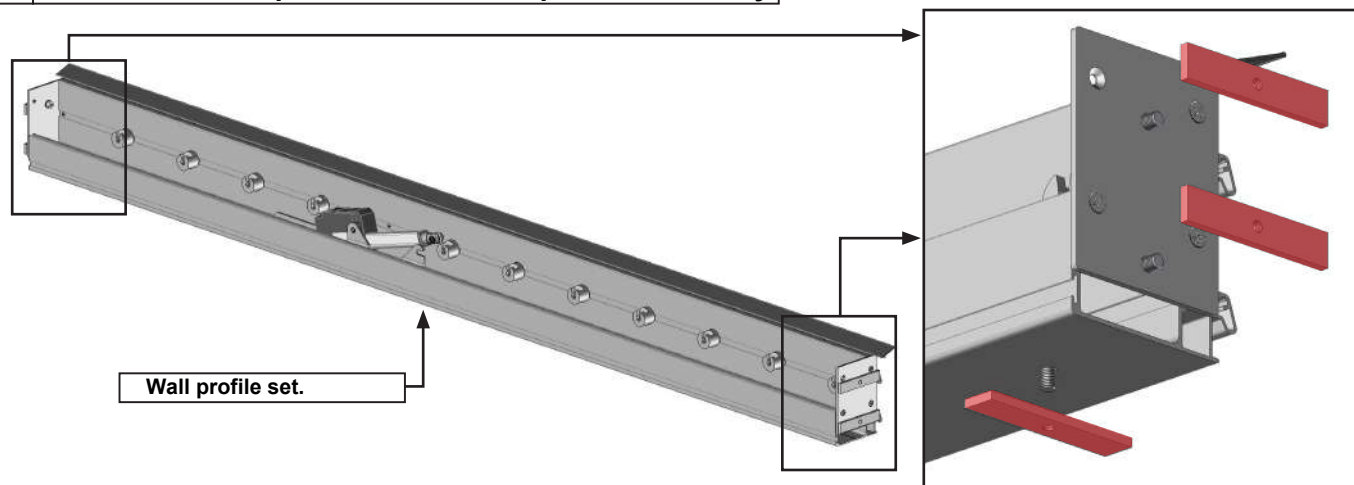


### D Slide the high profile onto the left frame.



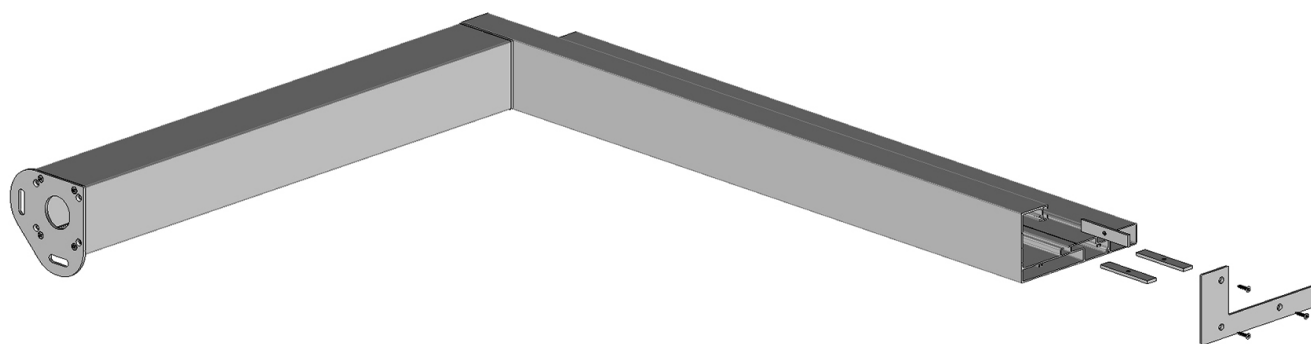


## 6 Disassemble the pads from the wall profile assembly.

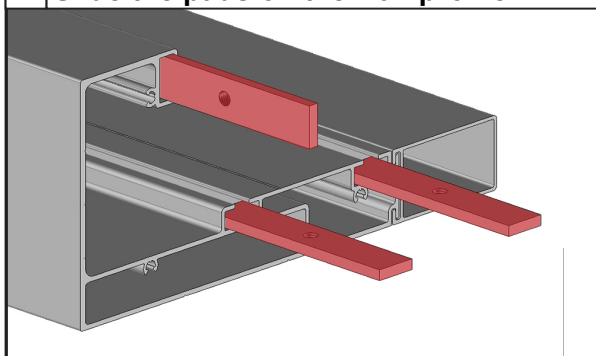


## 7 Install the JBSO4507 sealing flange on the left frame and on the right frame.

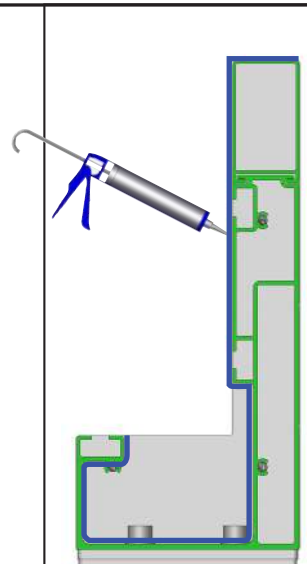
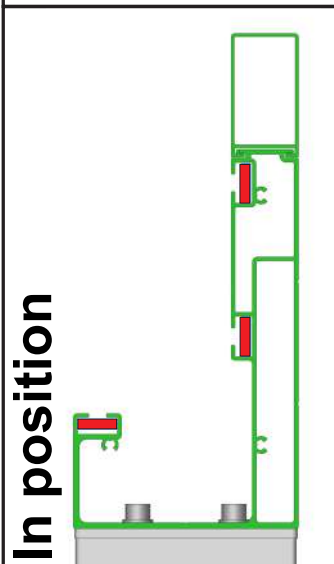
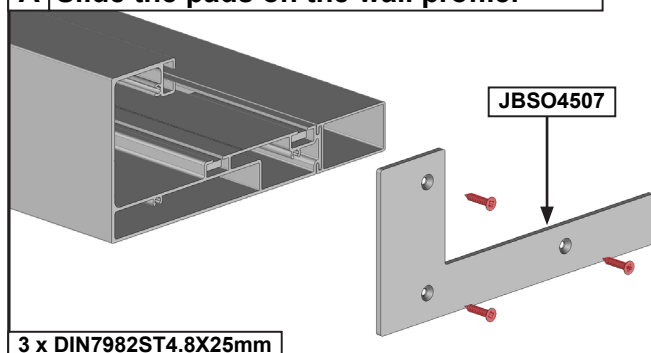
**Note** :perform these operations for the right frame also.



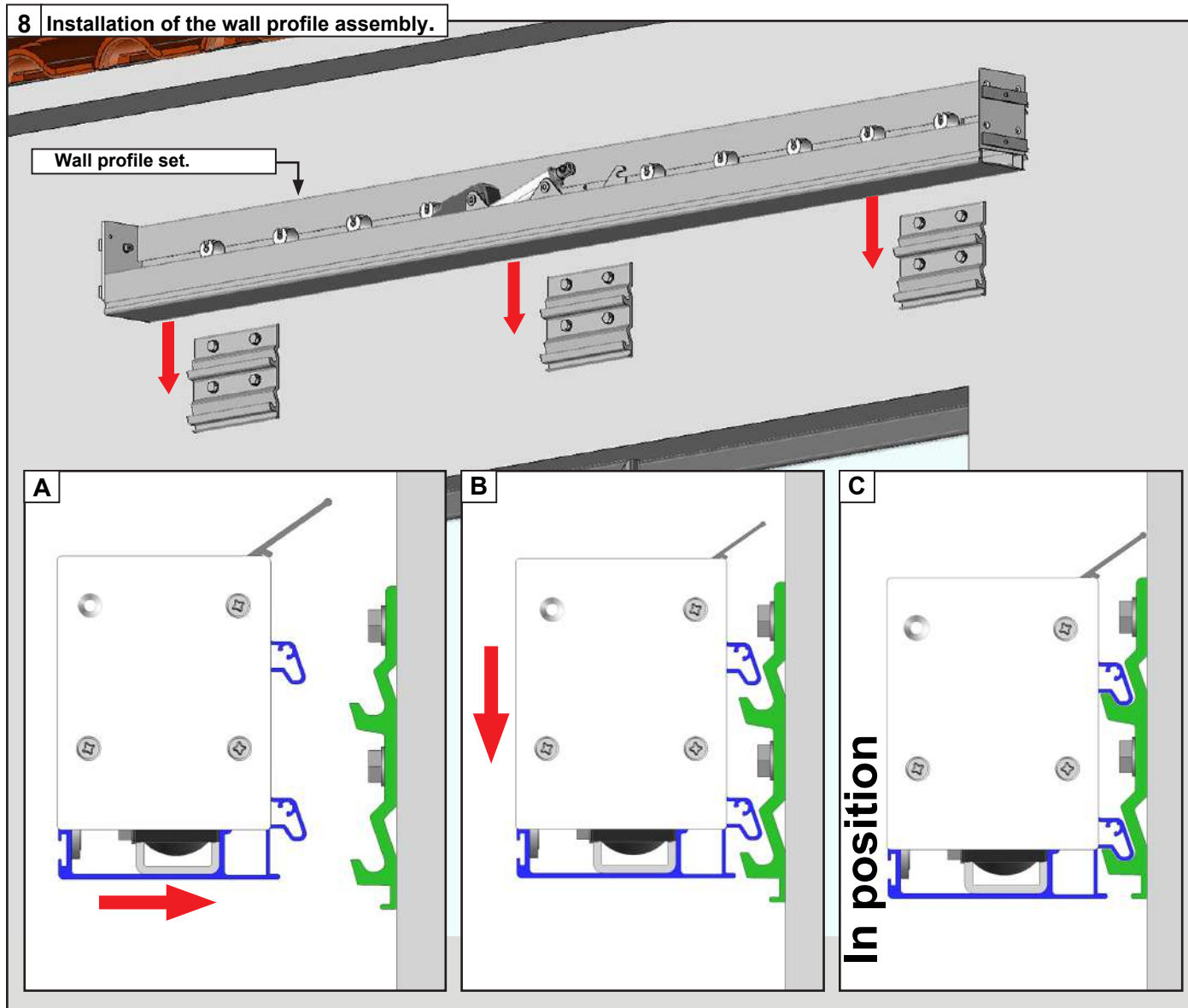
### A Slide the pads on the wall profile.



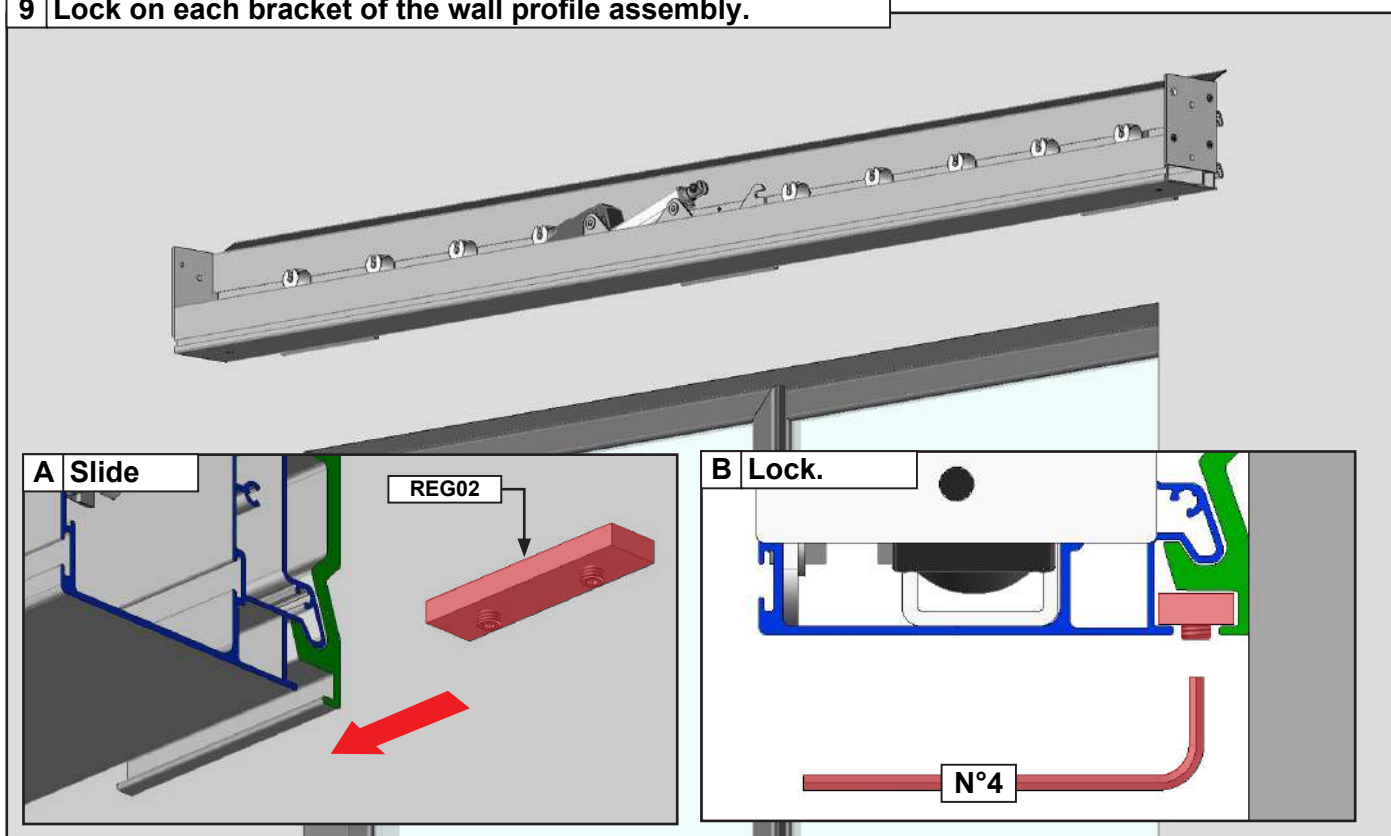
### A Slide the pads on the wall profile.



## 8 Installation of the wall profile assembly.

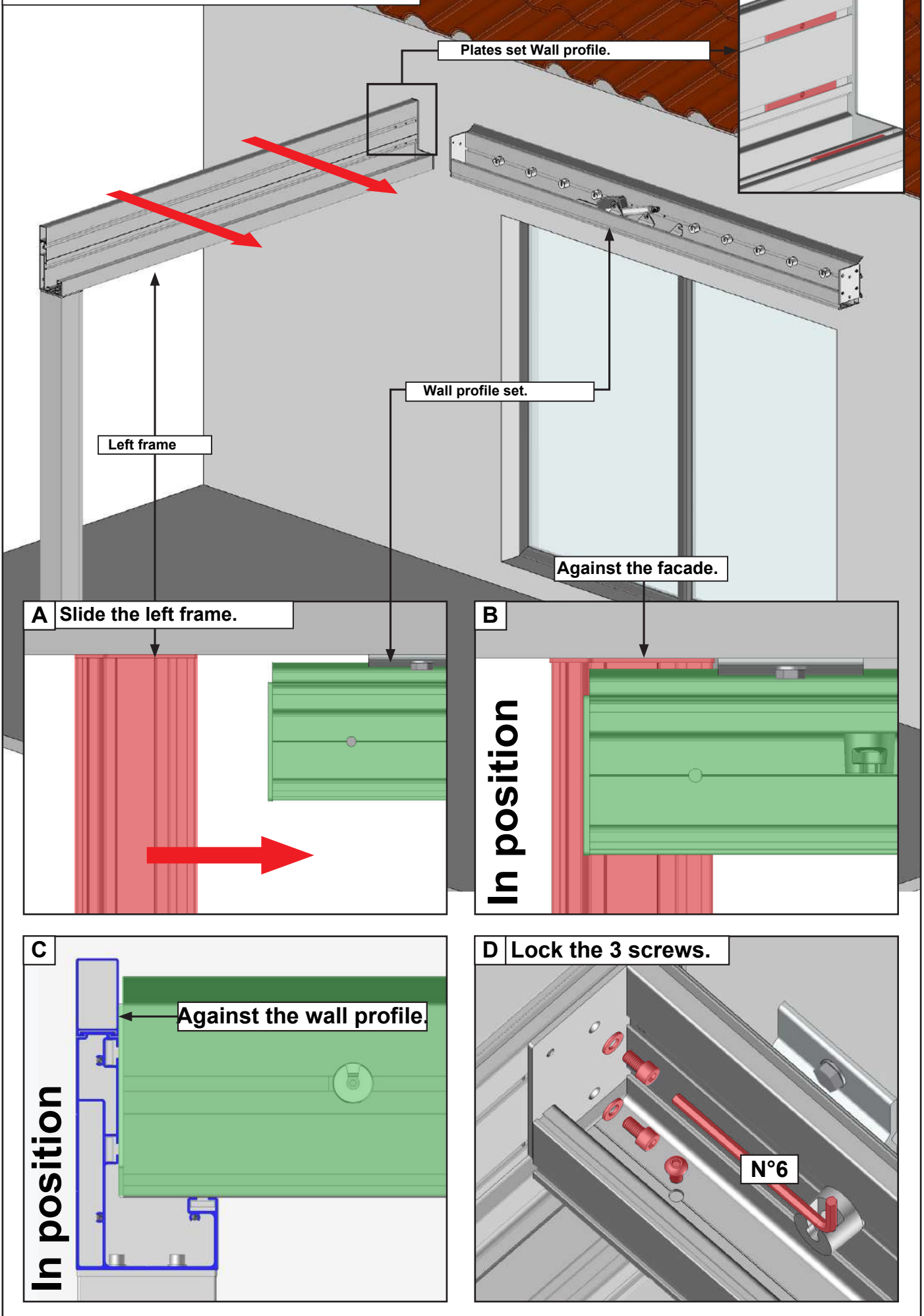


## 9 Lock on each bracket of the wall profile assembly.



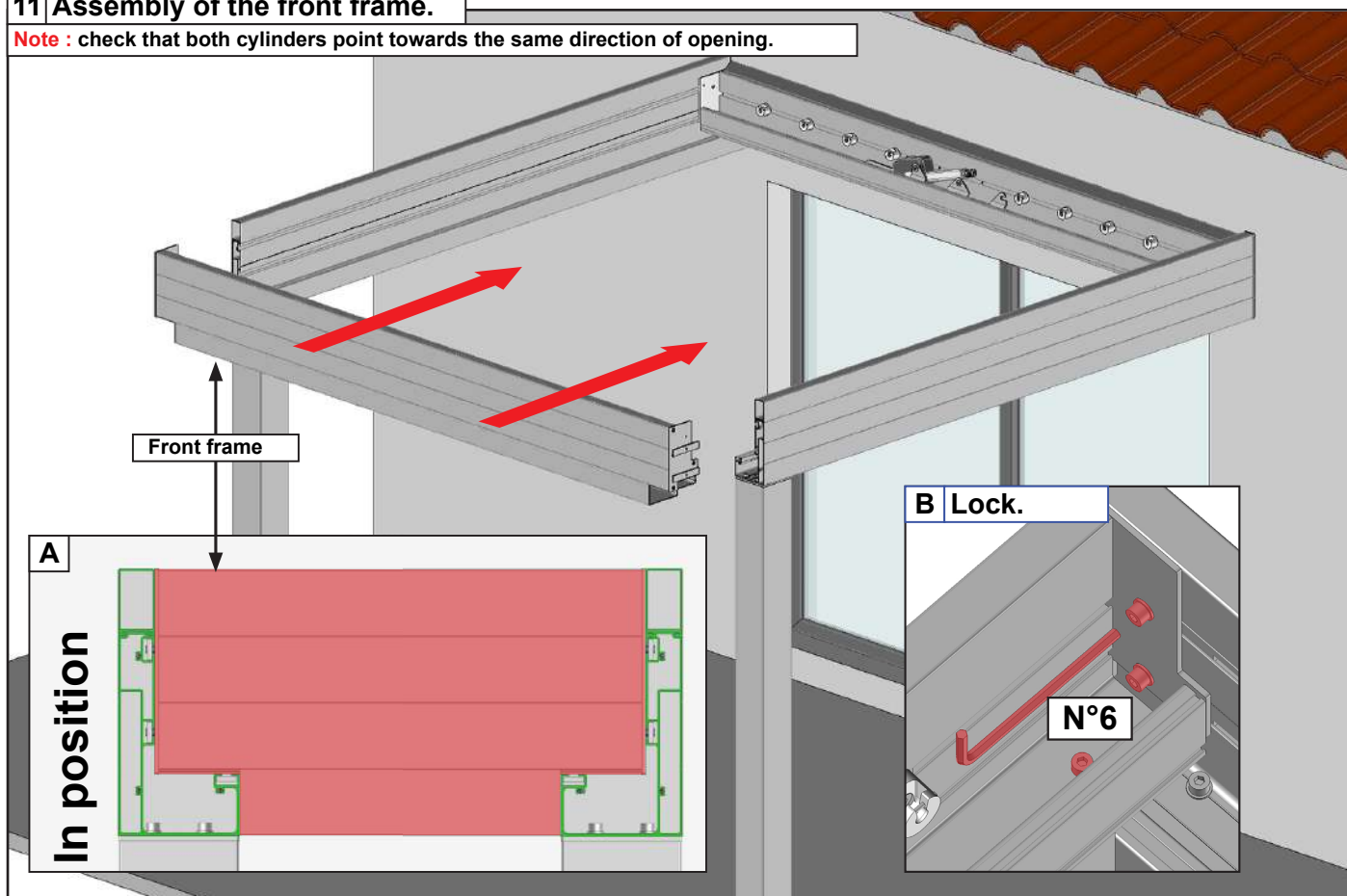
## 10 Assembly of the left frame.

**Note :** perform these operations for the right frame also.

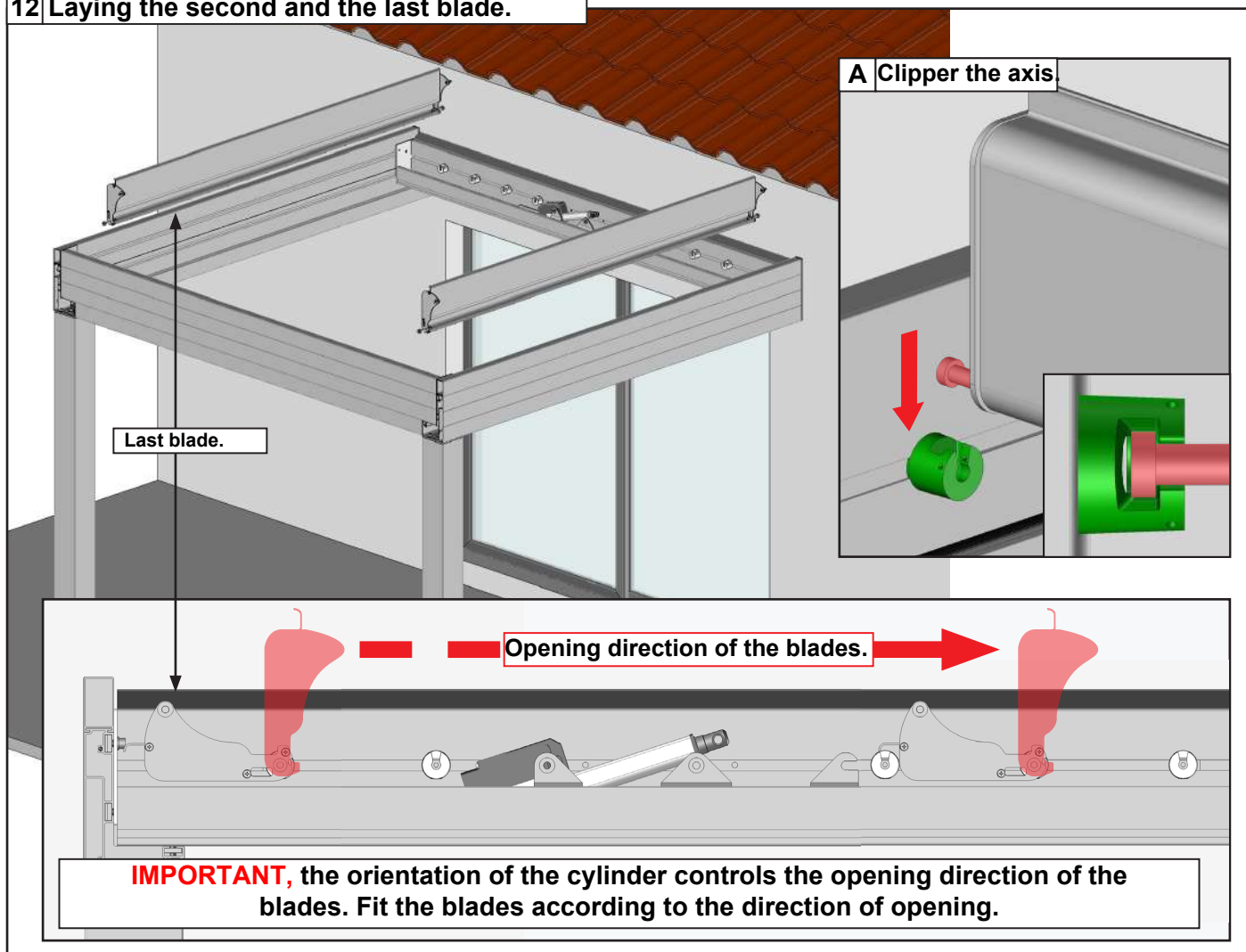


# 11 Assembly of the front frame.

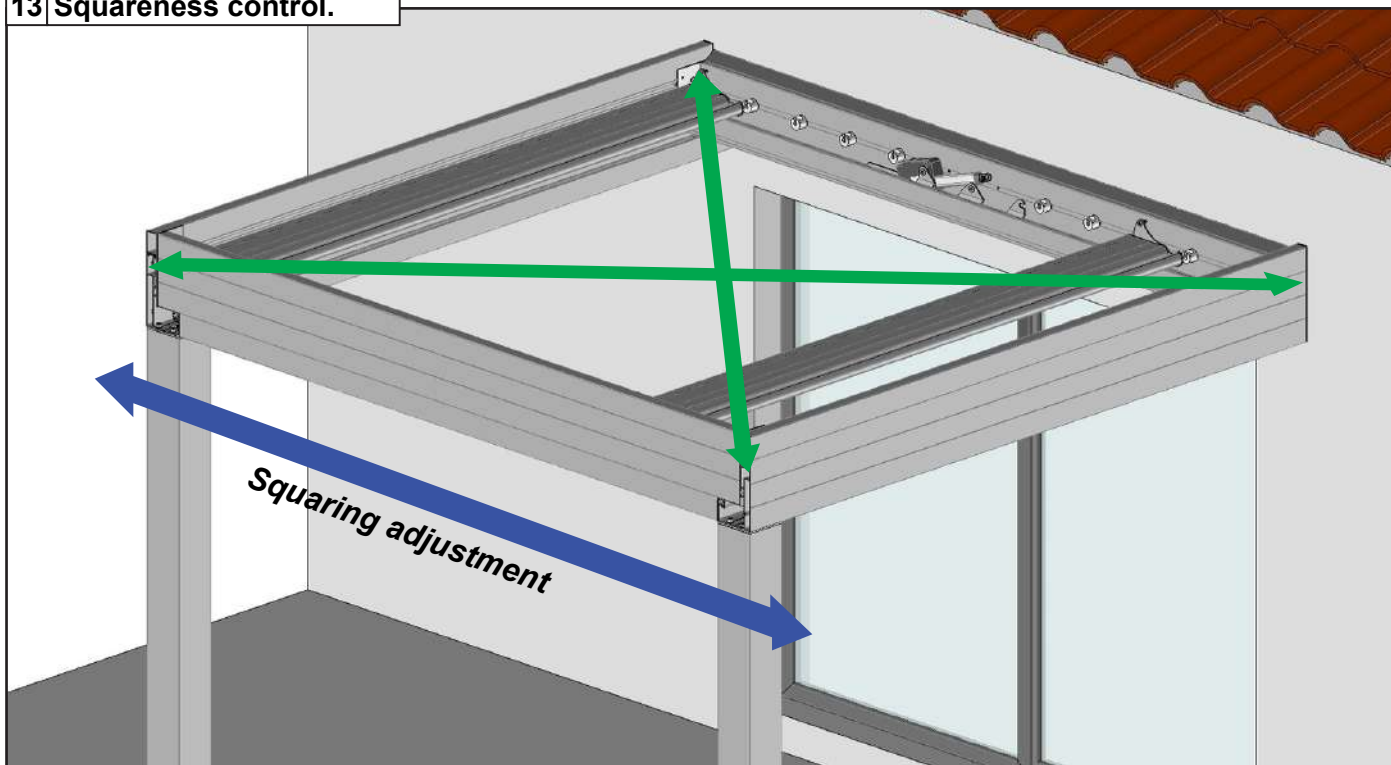
**Note :** check that both cylinders point towards the same direction of opening.



# 12 Laying the second and the last blade.



### 13 Squareness control.



This step is very important:  
Before proceeding with mounting your pergola, make sure that the diagonals are equal (acceptable tolerance of 5mm) for the system to work properly.

If the diagonals are not equal:

- 1- Slightly loosen the rafters.
- 2- Move the front part to correct the diagonals.
- 3- Tighten the rafters.
- 4- Check squaring again.

### 14 Ground fixing.

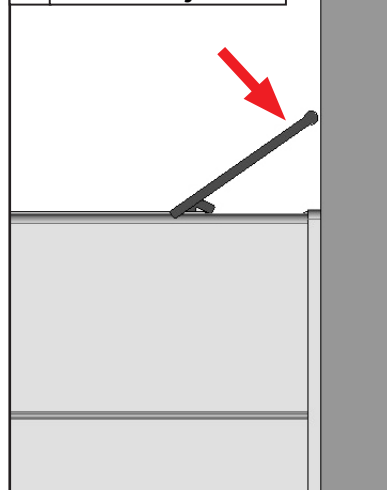
Fix the plates at the level of each concrete pad previously made with two screws minimum.

Our recommendation: Concrete screw Ø10mm length 120mm minimum. 500DaN tear resistance (500Kg)

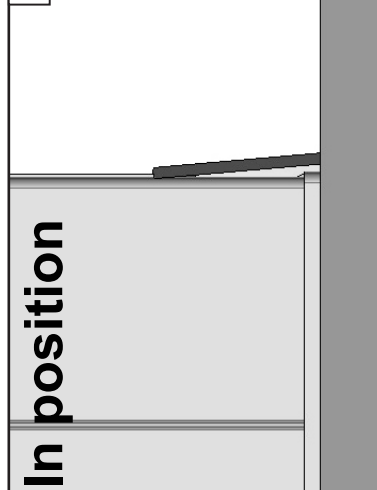
In the case of installation using a chemical sealing kit, refer to the instructions for use of the product used.

### 15 Waterproof Wall profile.

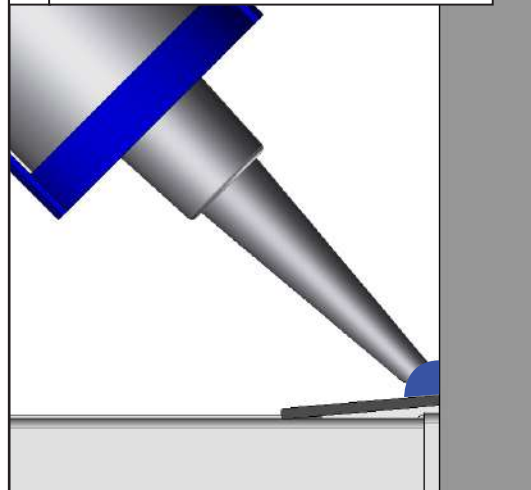
#### A Plate the joint.



#### B



#### C Siliconer over the entire width.

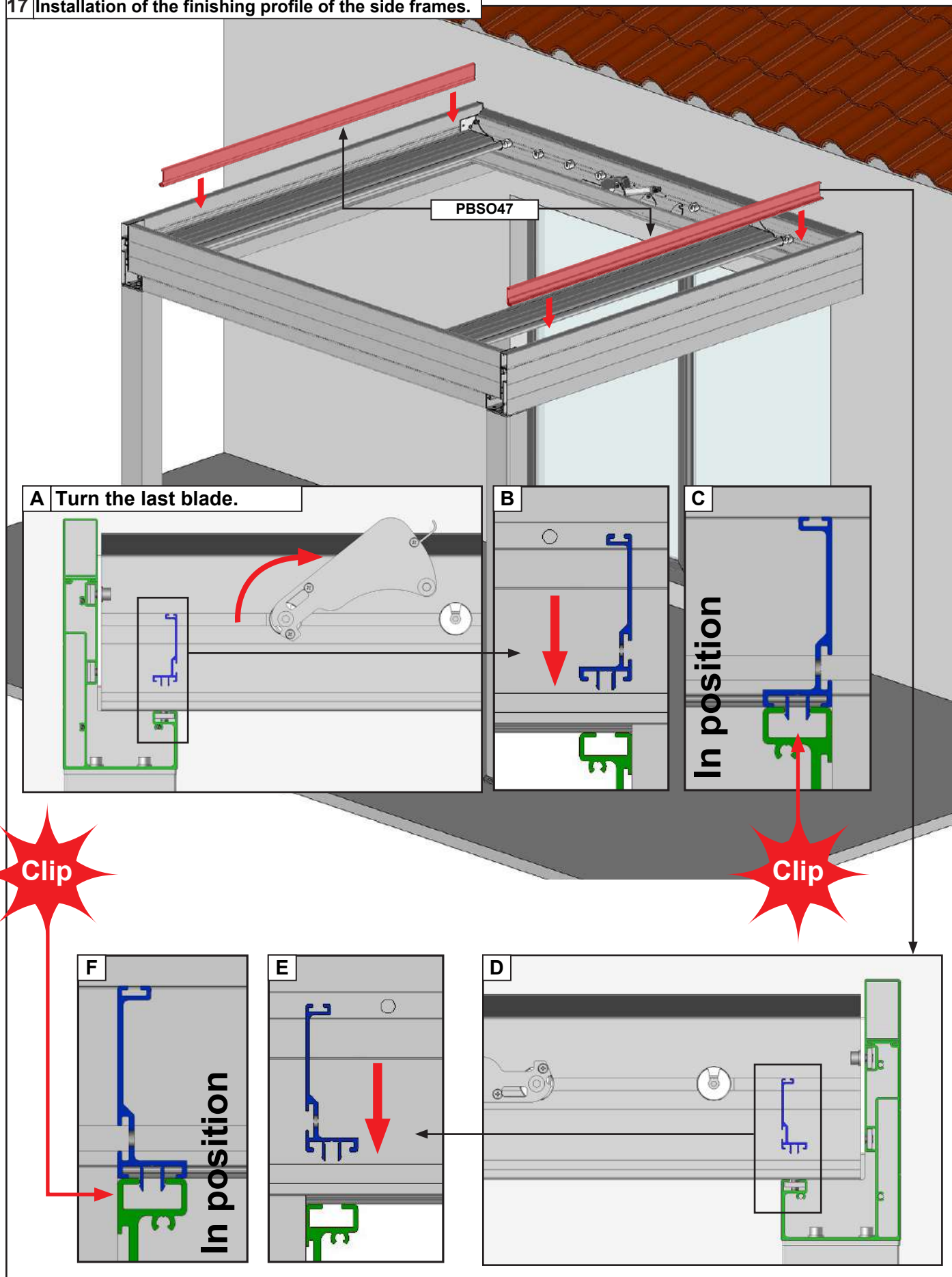




16 LED lighting option.

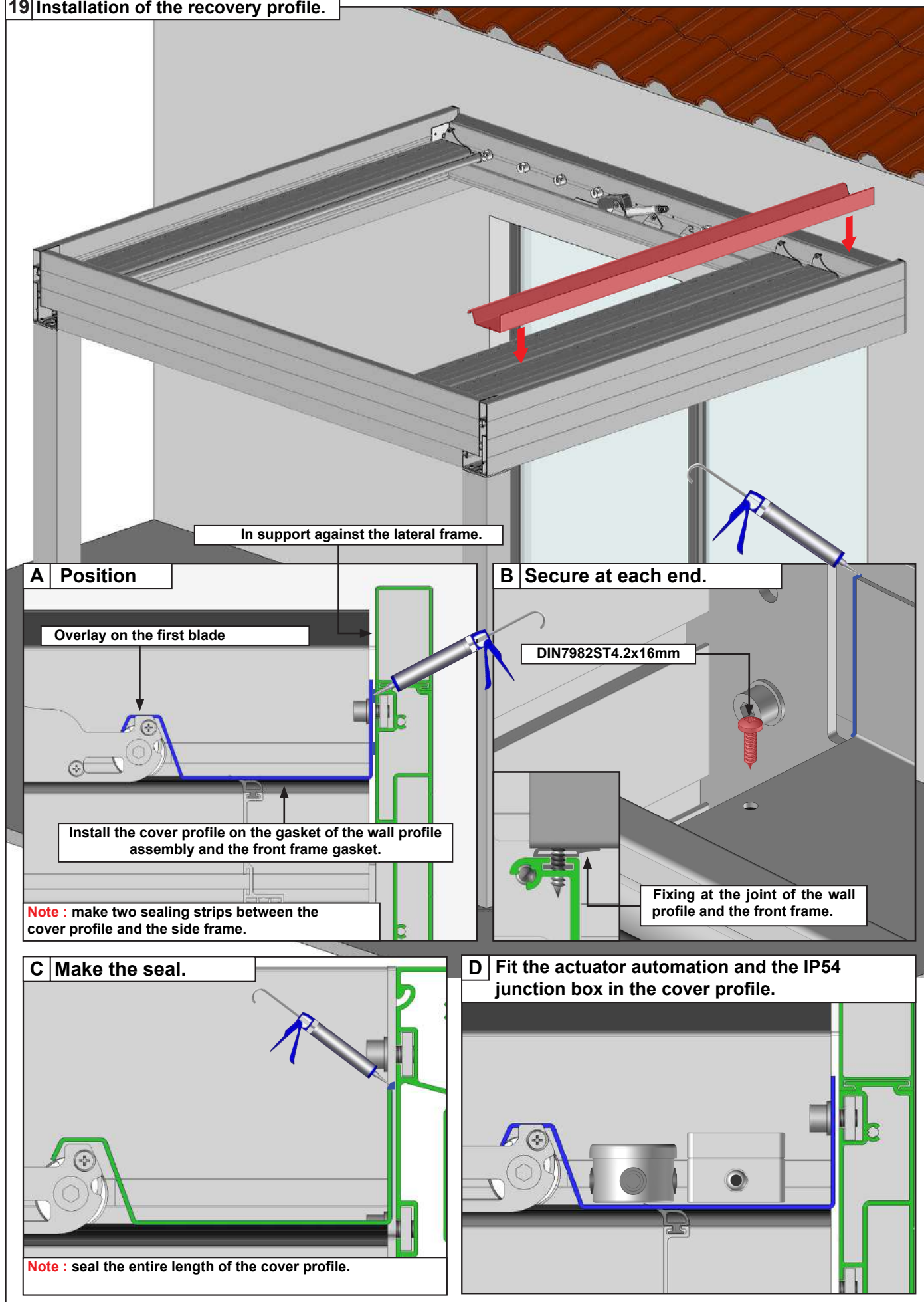
For the installation of the LED lighting option, refer to the LED lighting option manual and resume the installation procedure in paragraph 18 on page 15.

17 Installation of the finishing profile of the side frames.





## 19 Installation of the recovery profile.



# Motorisation

The installation must comply with the standard NFC15-100

## WARNING

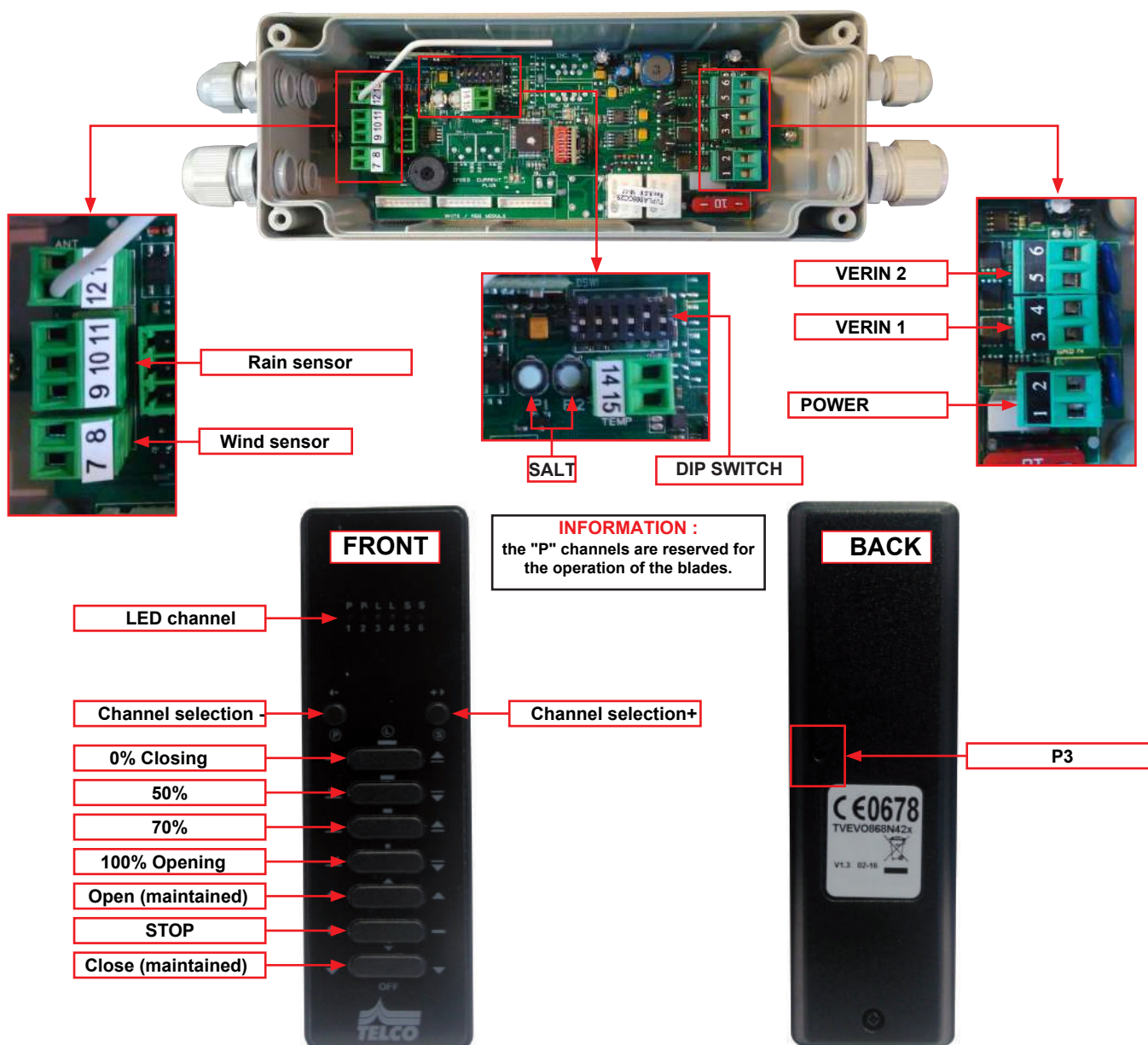
For your safety, before any installation and connection operations, make sure the power is off (line off).

- Do not spray water on the automation unit.

## CAUTION

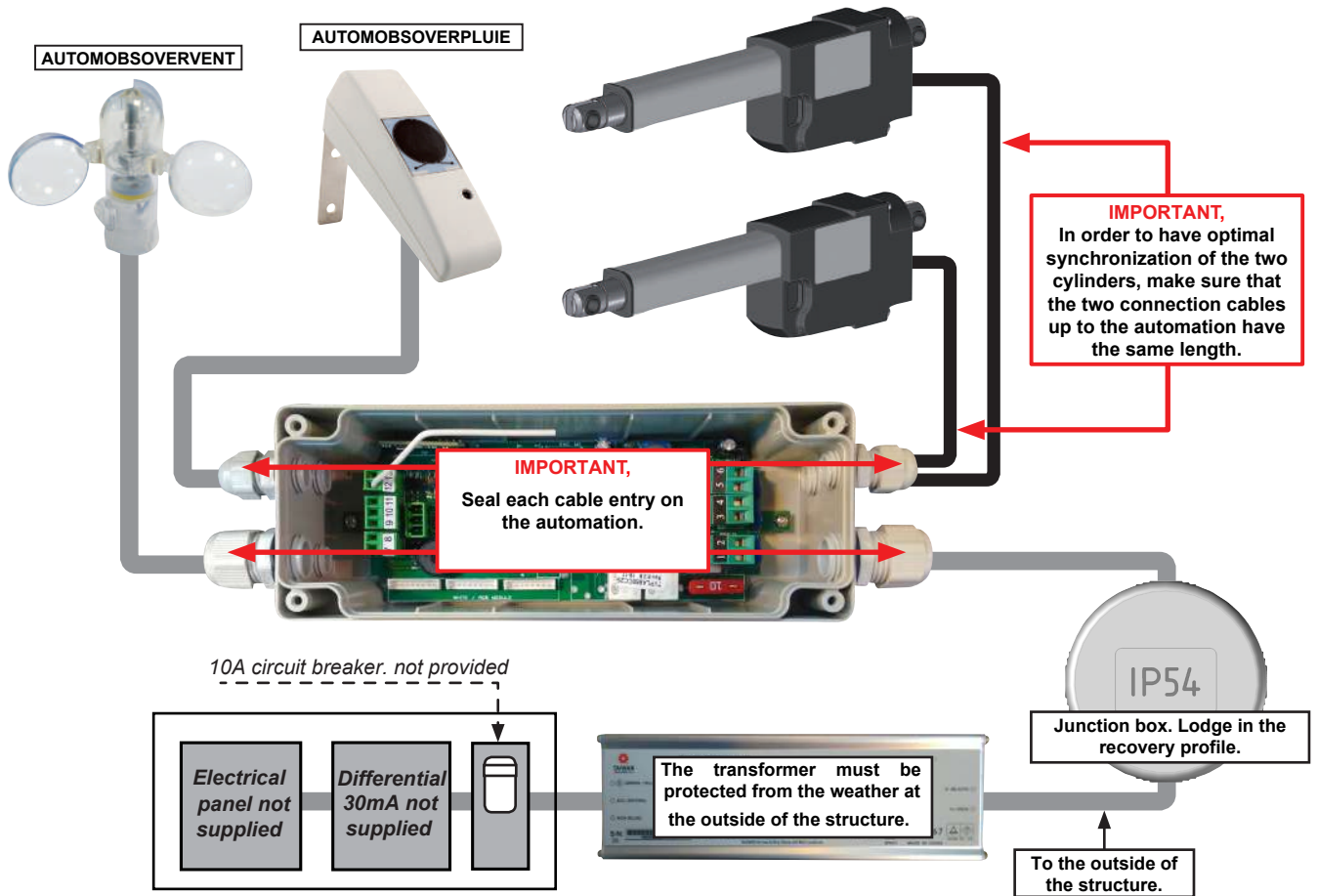
- You have acquired an automatism, the operations of connection must be done, by people competent for an installation which complies with and commits the guarantee.
- Turn off the power before connecting or operating the automation. --- Do not let children play with the controls (remote control). - Check the installation frequently to check for poor balance or signs of wear. - Do not use the pergola if repair or adjustment is necessary.

### Configuration.

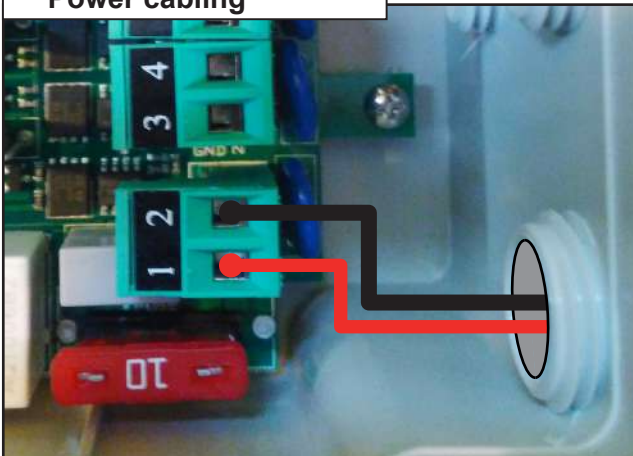


**Attention**, the positioning of each cylinder is positioned at the factory, do not change their position.

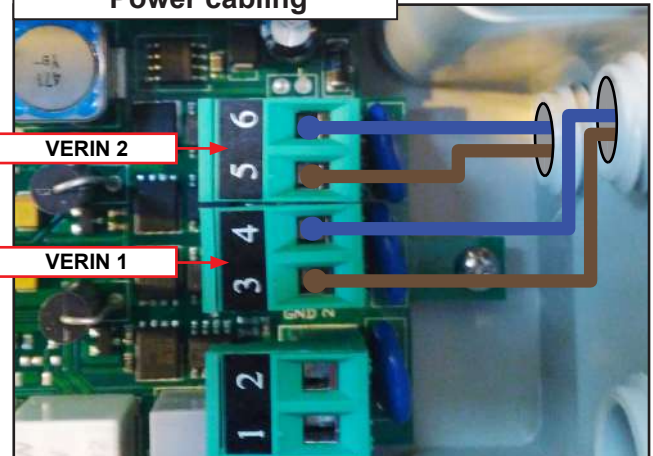
## 20 Cabling



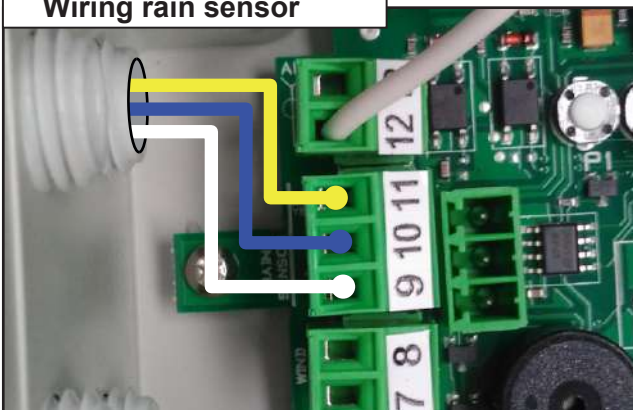
### Power cabling



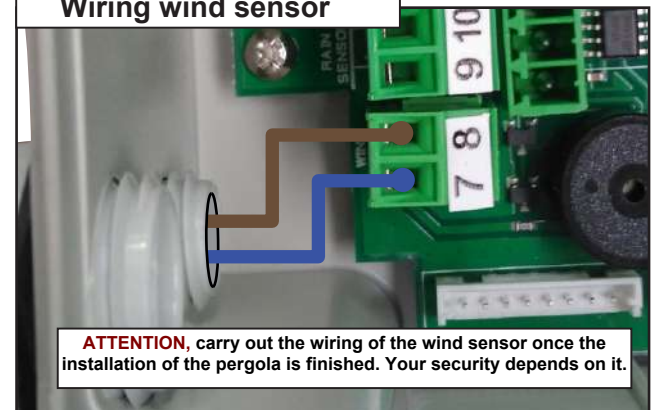
### Power cabling



### Wiring rain sensor



### Wiring wind sensor



**ATTENTION**, carry out the wiring of the wind sensor once the installation of the pergola is finished. Your security depends on it.

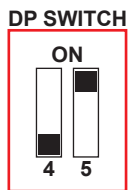


## 21 Learning radio code.

### A Cylinder configuration.



1 - Establish the current.



2 - Set the DIP4 to off and the DIP5 to ON. Press the P1 and P2 keys simultaneously for 5 seconds.



Intermittent



Validation

**Note :** in the event of an error, turn off the power for 30 seconds and restart the operation.

### B Learning the radio code.

SALT



Continu



x1

Maintain

1 - Press the P1 learning key twice and hold the 2nd press, the control unit emits a continuous beep. Without releasing the SEL key, press any key on the remote control.



Intermittent



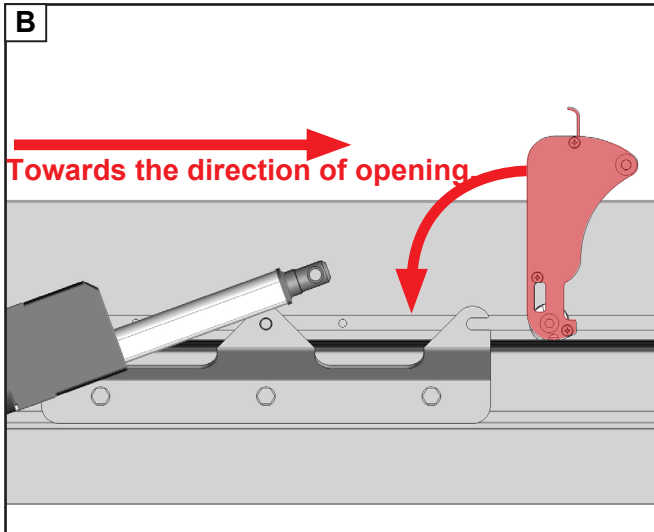
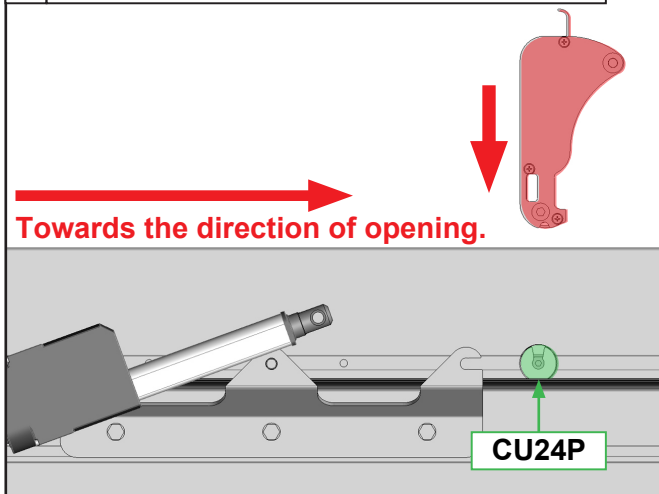
Validation

**Note :** in the event of an error, turn off the power for 30 seconds and restart the operation.

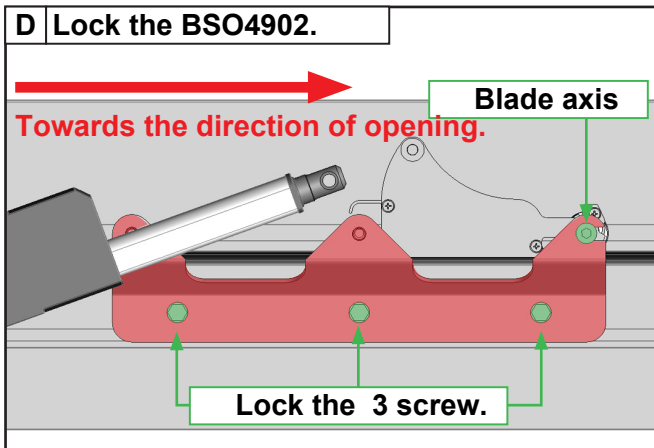
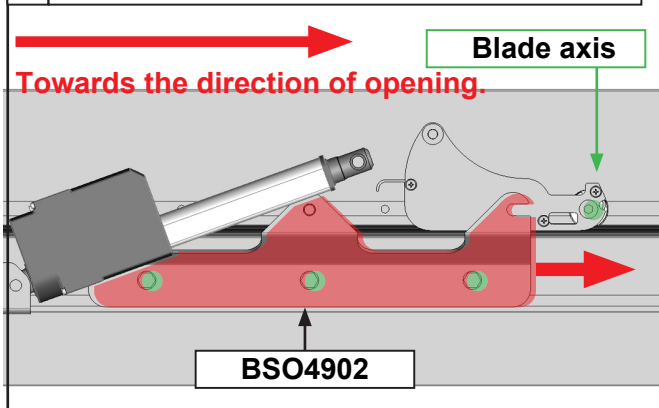
## 22 Laying the intermediate blade.

**Note :** perform this operation at the two jacks of the span.  
In the case of a width greater than 3m, clipper other blades on the apron.

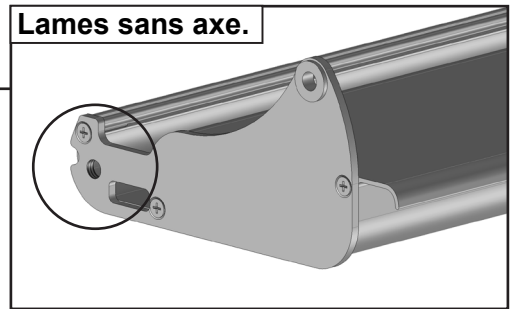
### A Clipper the blade on its support CU24P.



### C Position the BSO4902 on the blade shaft.


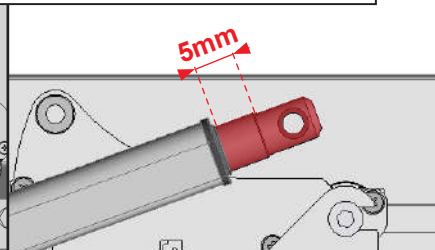


**Note :** idem paragraph 22 page 18.



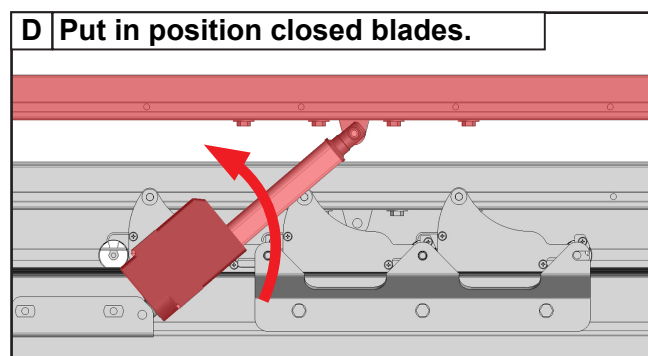
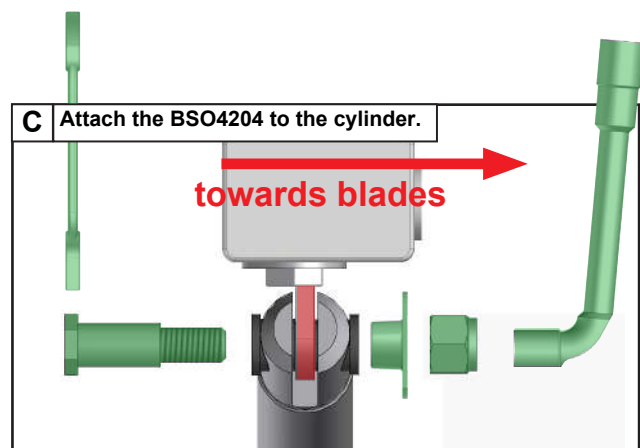
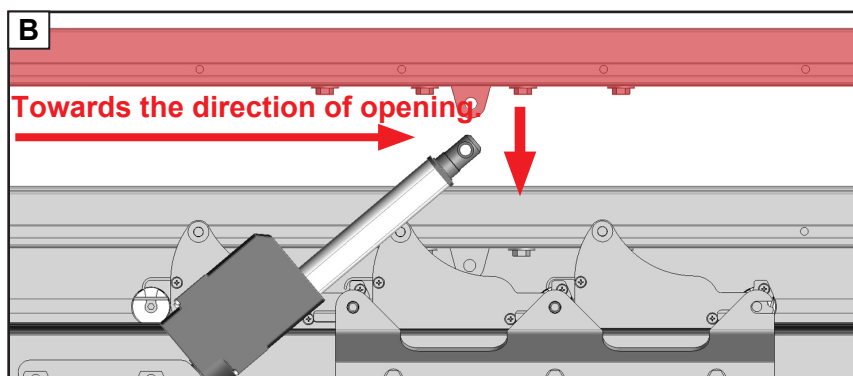
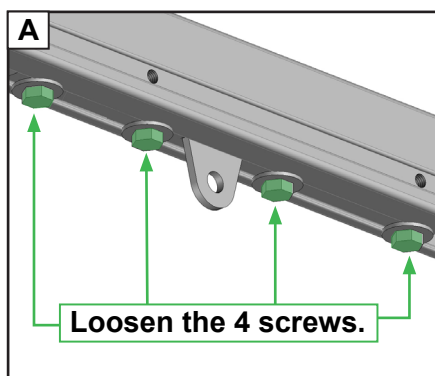
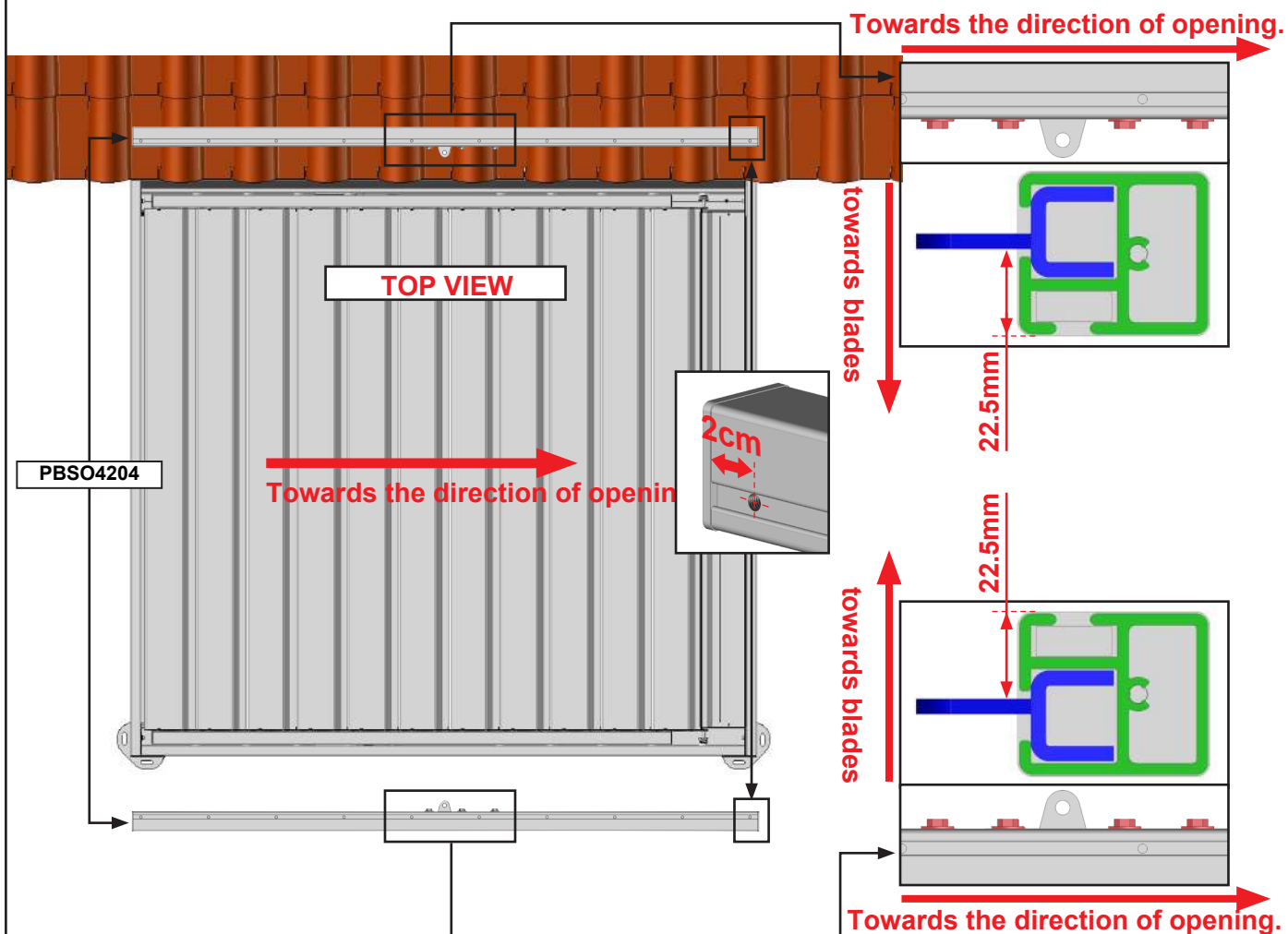
**Note :** idem paragraph 22 page 18.

**A** Manually lift the cylinder.

A technical diagram showing a red hydraulic cylinder being manually lifted. The cylinder is angled upwards and to the right. A large red curved arrow indicates the direction of movement. The cylinder is connected to a red rectangular block. The background shows a grey mechanical structure with various components like pulleys and bolts.

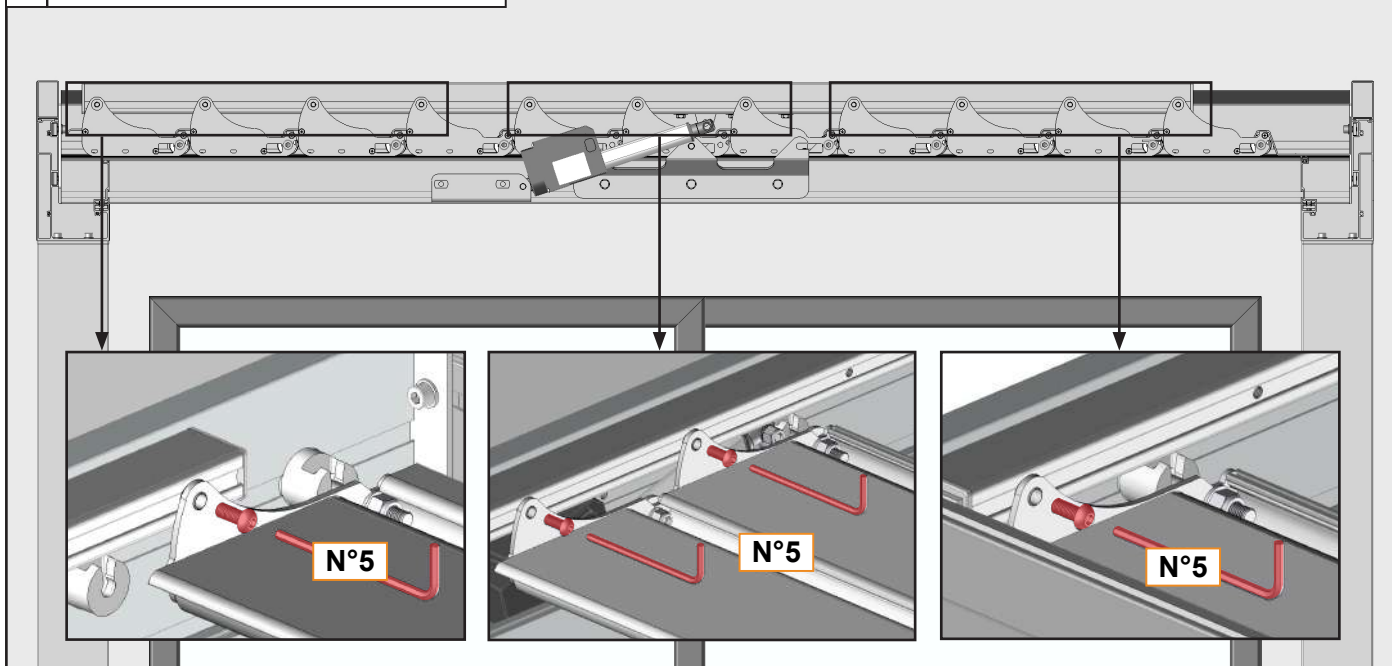
## 25 Installation of the operating profile at each cylinder.

Note : idem paragraph 22 page 18.



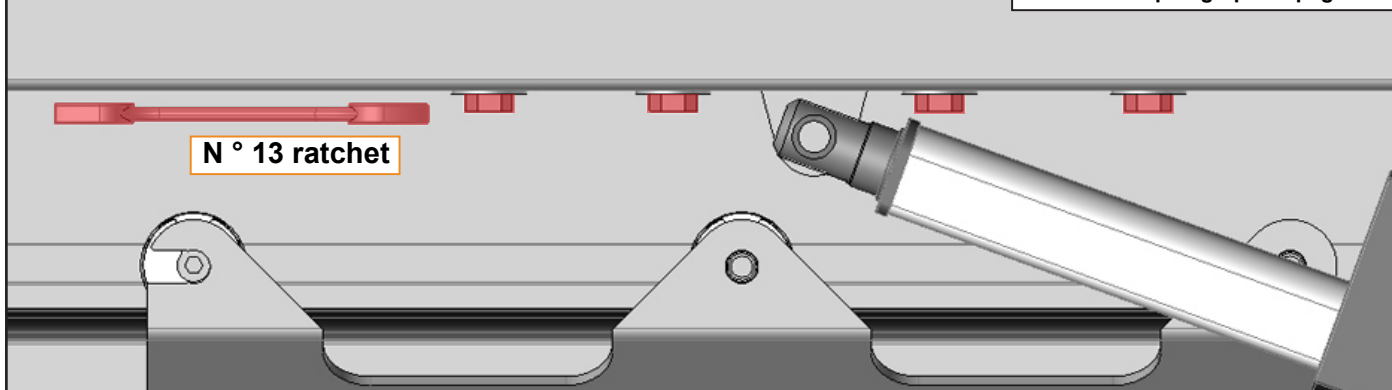


## 26 Attach the slides to PBSO4204.

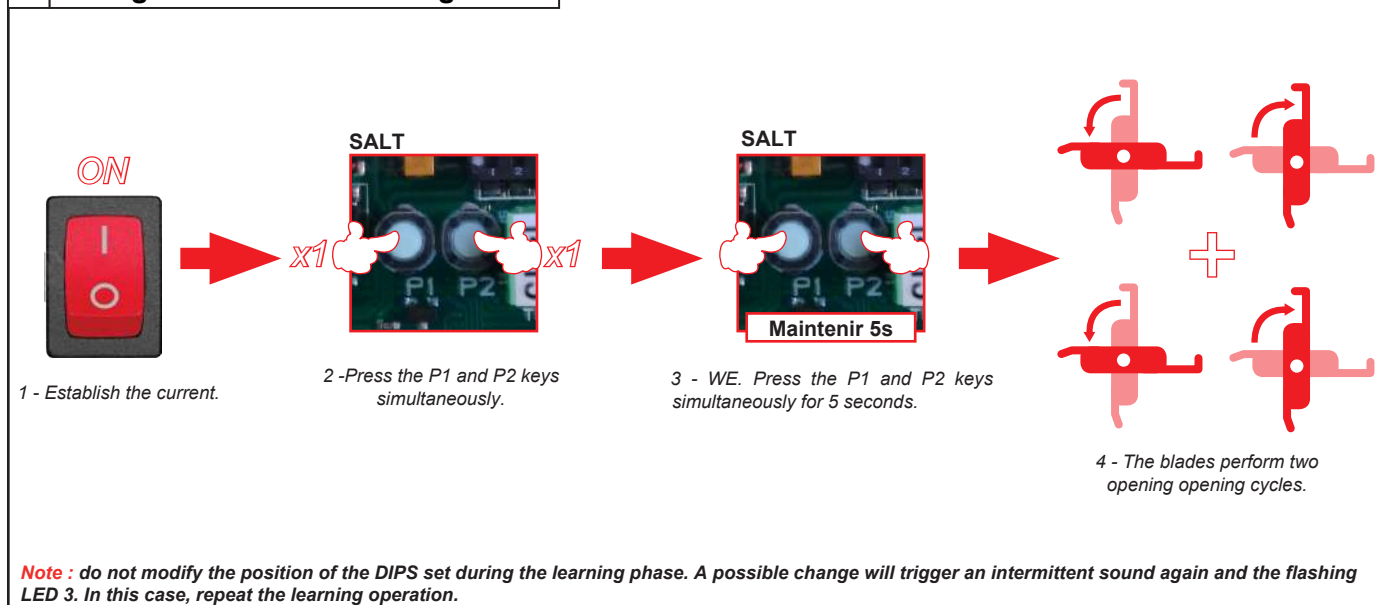


## 27 Lock the 4 screws of the BSO4202.

**Note :** idem paragraph 22 page 18.



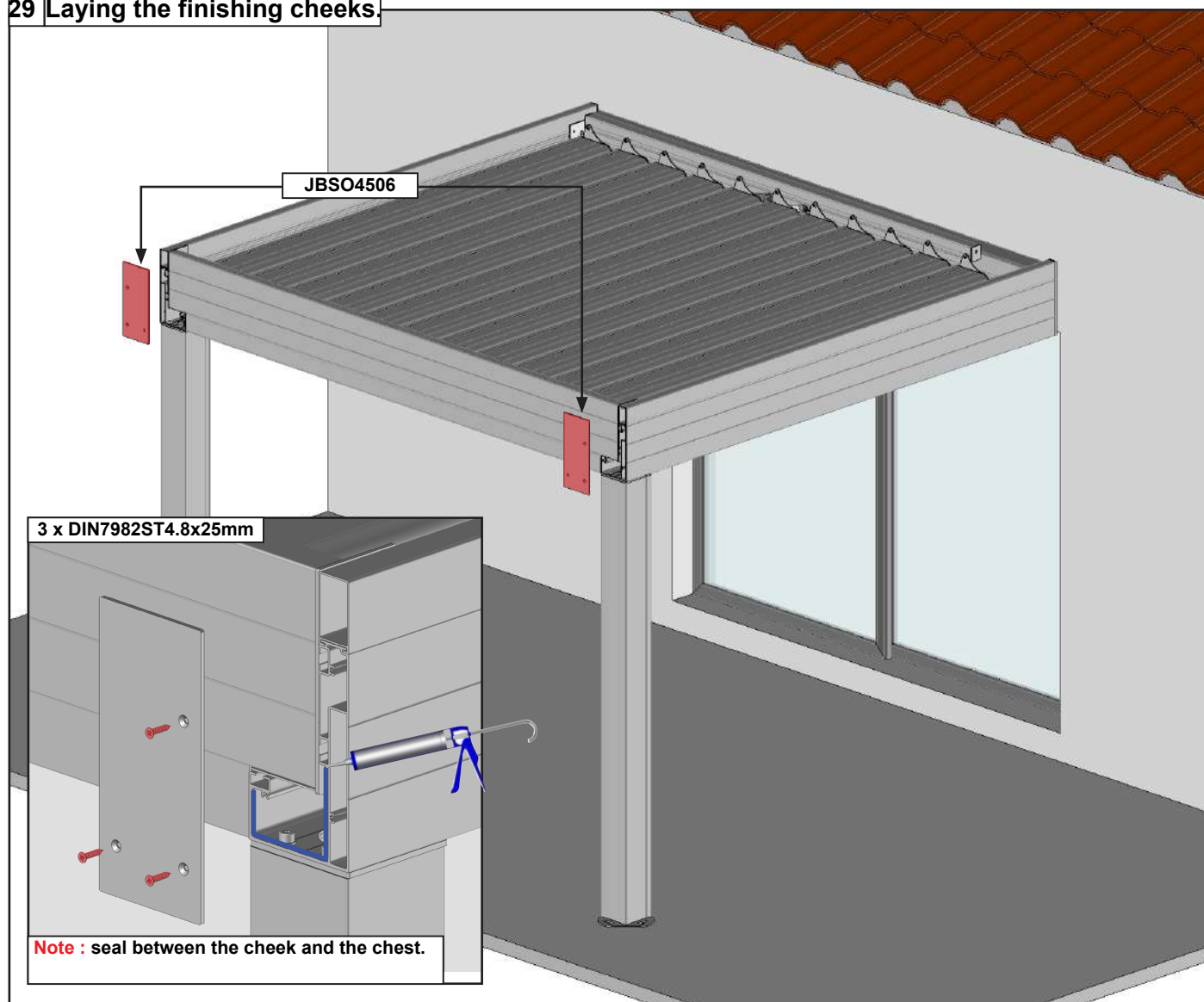
## 28 Configuration of the working time.



**IMPORTANT,** after setting the working time, make sure that the blades are level (deck flat). If this is the case, loosen the screws of the BSO4202, and redo the cylinder working time configuration to zero start position. (Totally closed)

For more operations such as setting the wind sensor or turning off the rain sensor, refer to the consumer information section on pages 24 to 25.

## 29 Laying the finishing cheeks.



## 1 - Poor evacuation of water Stagnant water in rafters blade holder:

- Check that the structure is not in an inverted slope. Disassemble all the boards of the structure and level the structure.

## 2 - Water flowing along the poles:

- Improper sealing at the front end trim tabs. Check or seal between the finiton cheeks of the front trunk and the front trunk. Refer to paragraph 29 on page 22.

## 3 - Leaking water at the blades:

- Bad closing of the blades. Repeat the preparation of the cylinder and the configuration of the working time. With the blades closed, loosen the BSO4204 (paragraph 27 on page 21), take out the 5mm cylinder (paragraph 24 page 19) tighten the BSO4204 and set up the working time configuration (paragraph 28 page 21).

## 4 - The blades do not open:

- Make sure that the cylinders are energized.
- Check the electrical connections. Caution turn off the power when handling.- Repeat the programming of the working -- time with all the blades mounted without the second and without the third blade.
- Check the squareness of the structure.
- Check the mounting of the operating profiles. Refer to paragraph 25 on page 20.

## 5 - The cylinder screw comes into conflict with the frame of the structure :

- Check the mounting of the maneuvering profiles. Refer to paragraph 25 on page 20.

## 7 - When assembling the frame, the front trunk poles are not level ( 90° ) :

- Perpendicularity problem. Level the rafters support blades or perform a calibration of the mounting plates on the ground.

## 8 - An LED ribbon stays on continuously:

- Check the cable passage at the PBSO47. Check that the LED cable is not stripped and in contact with the PBSO47. Caution turn off the power when handling.

- LED ribbon malfunction. Replace the LED ribbon.

## 10 - One day appears between the lap profile and the first blade :

- Normal phenomenon due to the flexion of the first blade. This phenomenon does not cause a leak.

## 11 - Condensation sous les lames :

- Phenomenon due to a big change of outside temperature important. This natural phenomenon does not call into question the quality of the bioclimatic pergola.

### Maintenance tips for the blade pergola.

A pergola with blades is subjected to many constraints: humidity, salty air, constraint of weight, wind....

We therefore recommend :

- **To clean** the frame at the beginning and end of the season. Be careful, do not use detergent

Do not open your pergola in case of:



**Rain**  
Pro-duct tightness in case of rain.

Open your pergola in case of:



**Snow**

**Forte chute de neige:**  
If it snows during your absence, remove as much snow as possible before opening the blades.



**Wind**

**Wind:**  
Open the blades of the pergola for a wind greater than 180 Miles / h.

## Deleting a radio code.



Intermittent



Maintain

1 - Press the P1 learning key 5 times and hold the 5th press, the control unit emits an intermittent beep. Without releasing the SEL key, press any key of the transmitter concerning the code to be deleted.



Continued



Validation

## Deleting the radio codes.



Intermittent



Maintain 10s

1 - Press the P1 learning key 6 times and hold the 6th press for 10 seconds, the control unit emits an intermittent beep. Without releasing the SEL key, press any key of the transmitter concerning the code to be deleted.



Continued



Validation



2 - Release the learning key P1.

## Remote storage of other radio codes.



Continued

Maintain

1 - Press the P3 key of the transmitter already memorized and hold it. Continuous beep.



Then

Continued

2 - Press a key of a code already stored. Stop the buzzer then continuous beep.



3 - Press a key of the new transmitter concerning the new code.



Fast



Validation

## Remote storage of other radio codes.



0s Time limit 5s



Slow

Maintain

1 - Press the P3 key of the transmitter already memorized 3 times and hold it. Slow beeps



Slow

2 - Press within 5 seconds a key concerning the code to be deleted.

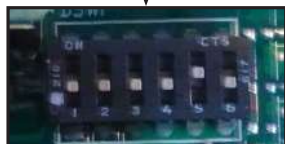


Validation

3 - The control unit no longer beeps as soon as the deletion is confirmed.

## Wind sensor.

### A Sensor setting.



Wind sensor adjustment

DIP1	DIP2	DIP3	Km/h
OFF	OFF	OFF	40
OFF	OFF	ON	45
OFF	ON	OFF	50
OFF	ON	ON	55
ON	OFF	OFF	60
ON	OFF	ON	65
ON	ON	OFF	70
ON	ON	ON	75

### B Operation.

- 1 - The alarm is triggered when: The speed detected is higher than the threshold set above.
- 2 - When the alarm is triggered: the control unit intervenes by rotating the blades of the pergola to 33% of the full opening. The central does not accept any order.
- 3 - The alarm is not triggered when: the sensor detects for 60 seconds a speed lower than the set threshold.

## Rain sensor.

### A Activation of the rain sensor



Maintain 10s

- 1 - Press the STOP button on the memorized transmitter for 10 seconds.



Continuous 4s



Validation

OU



Maintain 5s

- 1 - Press the P2 learning button on the previously memorized transmitter 7 times and hold the 7th press for 5 seconds.



Continuous 4s



Validation

- 2 - The control unit emits a continuous beep for 4 seconds.

### B Disabling the rain sensor.



Maintain 10s

- 1 - Press the STOP button on the memorized transmitter for 10 seconds.



x2



Validation

OU



Maintain 5s

- 1 - Press the P2 learning button on the previously memorized transmitter 7 times and hold the 7th press for 5 seconds.



x3



Validation

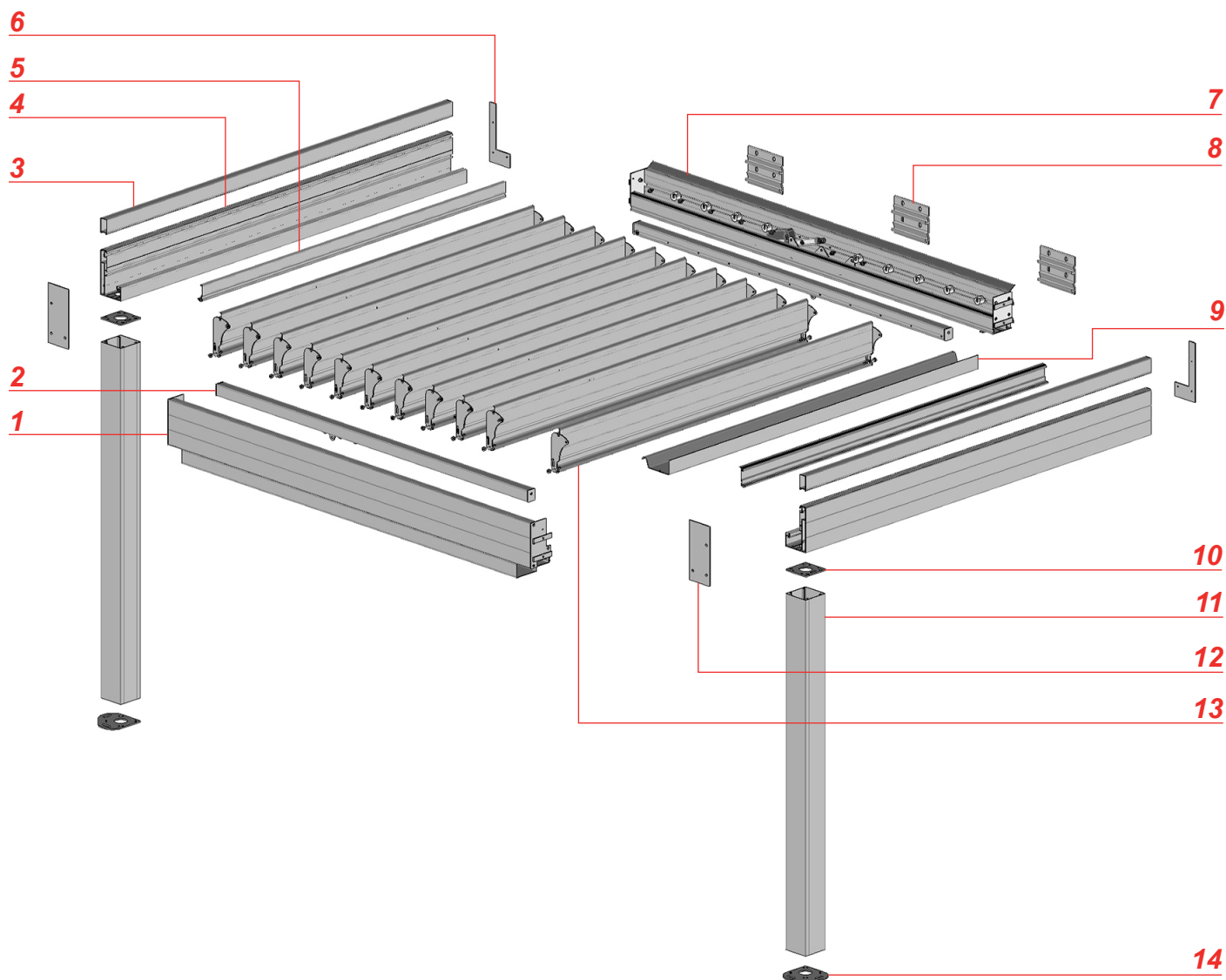
- 2 - The control unit emits a continuous beep for 4 seconds.

### C Operation.

- 1 - The alarm is triggered when: the sensitive surface of the sensor detects drops of water.
- 2 - When the alarm is triggered: the control unit intervenes by rotating the blades until it closes completely. The central does not accept any order.
- 3 - The alarm does not sound when: the sensor does not detect rain.
- 4 - After the rain alarm (evacuation of the residual water): if an automatic opening command is issued by means of the transmitter during the 6 hours following the end of the rain alarm, the blades position at 33% opening to allow the evacuation of rainwater. For 4 minutes the control unit only accepts the commands held, thus leaving the alarm state.



## Exploded view

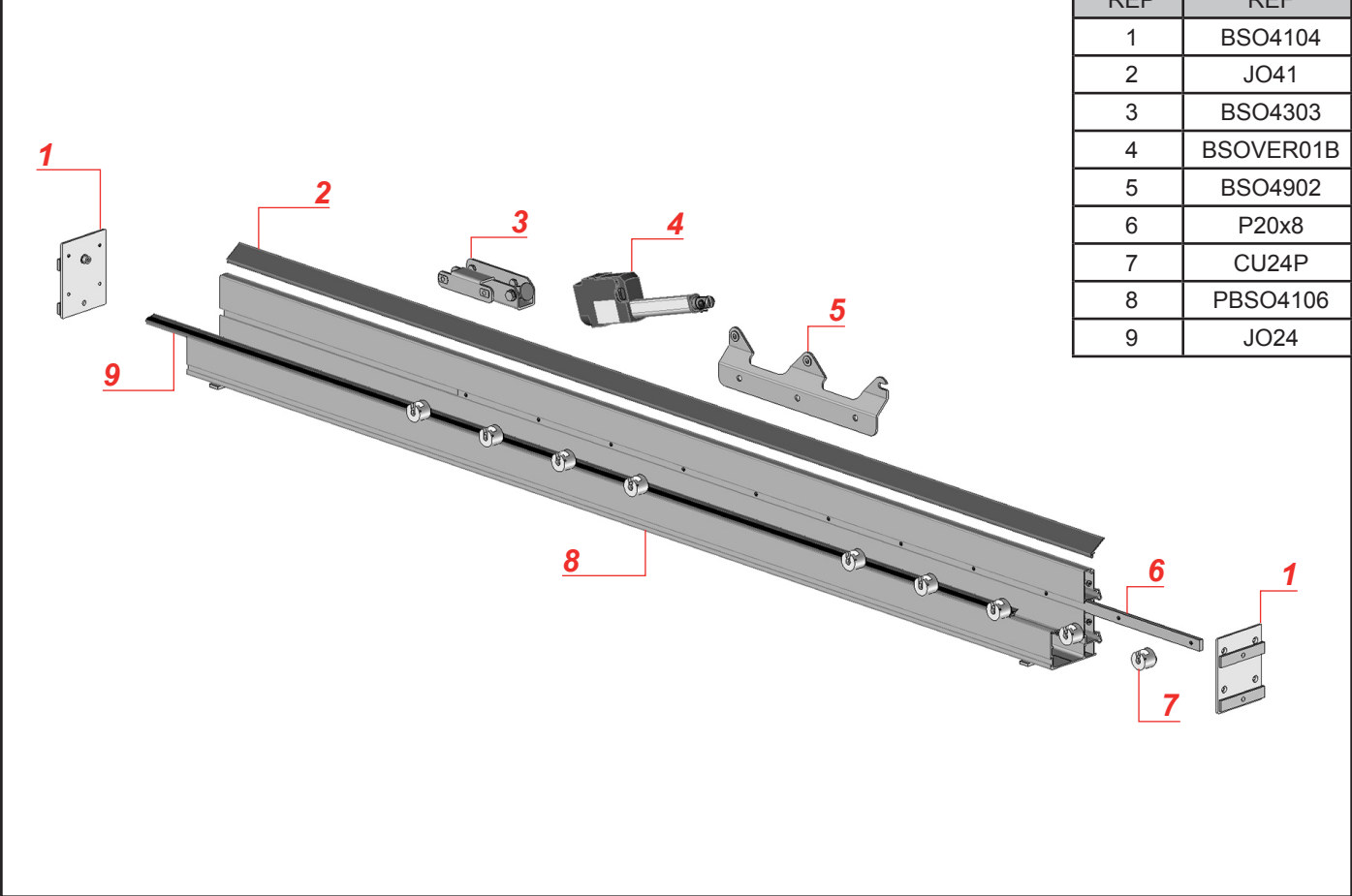


landmark	References	Designation
1	See exploded section	Set chevron blade holder
2	See exploded section	Maneuver profile set
3	PBSO4702	High side frame profile
4	PBSO4503	Lateral frame profile
5	PBSO47	Finishing profile side frame
6	JBSO4507	Wall seal cheek
7	See exploded section	Wall profile set
8	C21001	Wall bracket
9	PBSO4003	Collection profile
10	ST47	Front trunk connector plate
11	PA34	Pole profile
12	JBSO4506	Finishing play
13	See exploded section	Blade set
14	ST4502	Mounting plate 90 ° on the ground

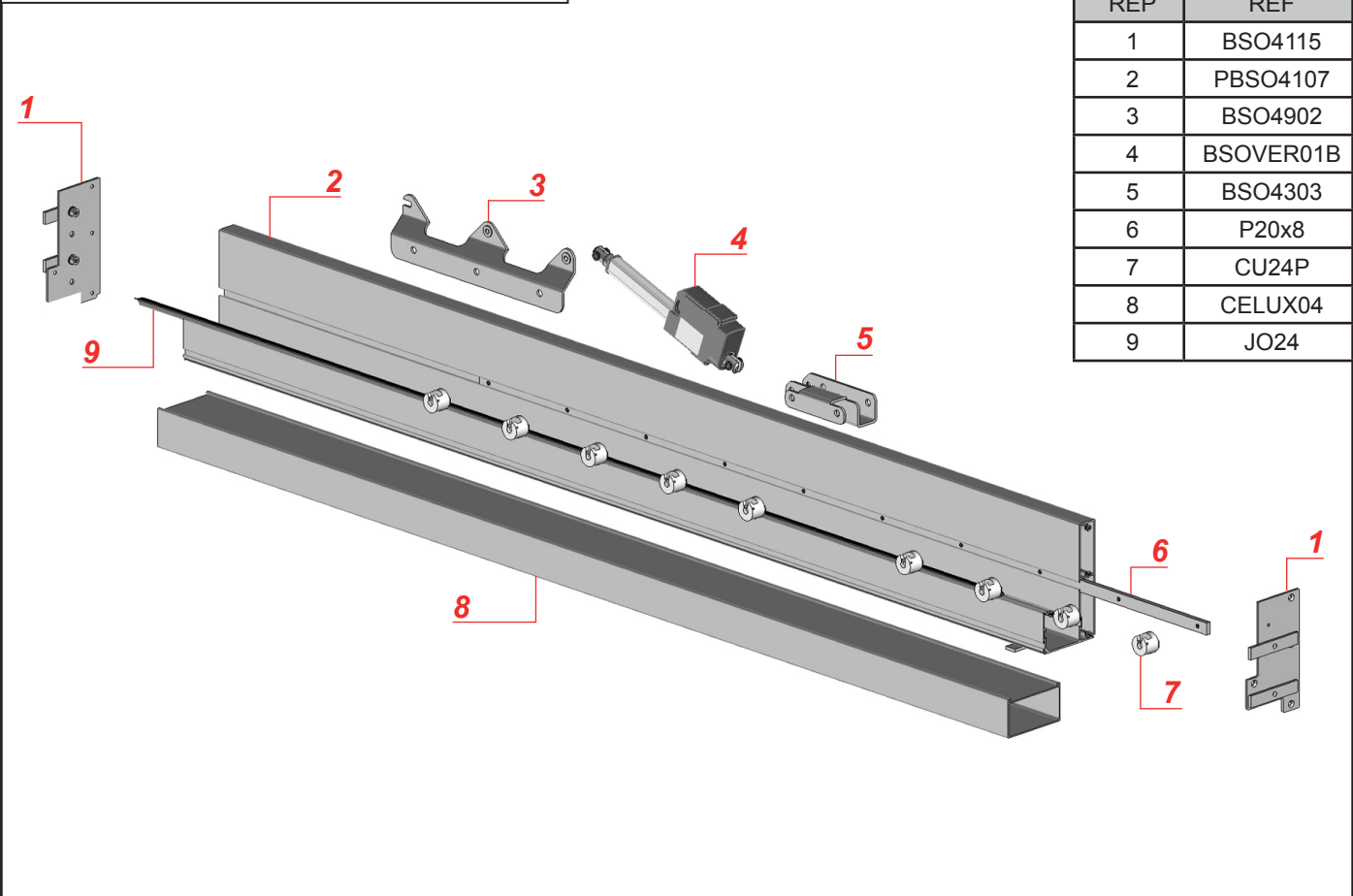


# Exploded section

## Set chevron support blades

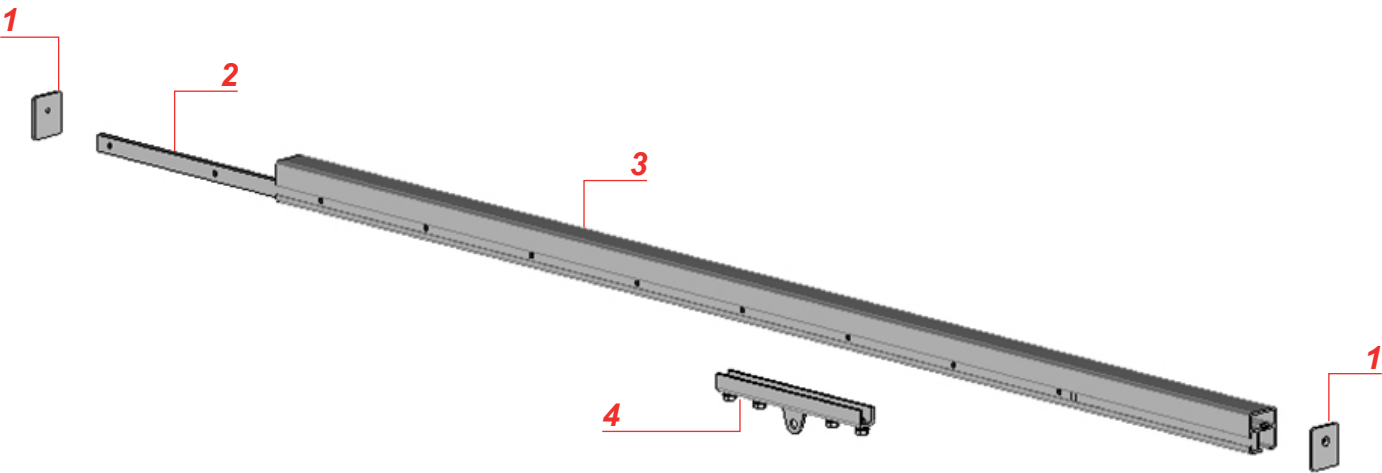


## Set chevron support blades.



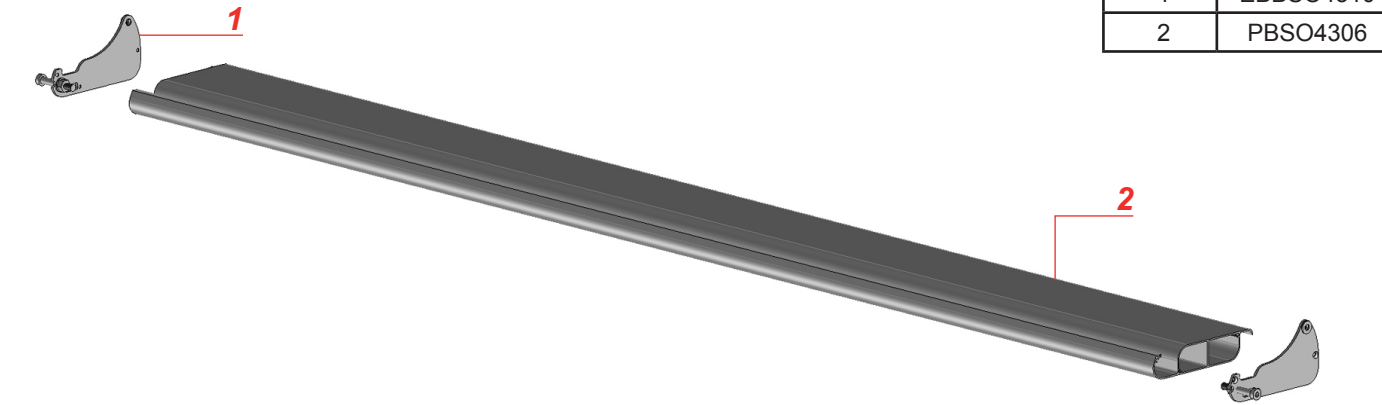
Maneuvering profile.

REP	REF
1	EBBSO4204
2	P20x8
3	PBSO4204
4	BSO4202



Swivel blade.

REP	REF
1	EBBSO4310
2	PBSO4306



## Accessoires.



TELEVN24C

AUTOMOBSOEVERB



AUTOMOBSOEVERVENT

AUTOMOBSOEVERPLUIE



TRFOLED24V

**TEXAS ALUMINUM SYSTEMS, LLC.**  
 21815 Katy Fwy Ste C116 Katy Tx 77450 USA  
 Ph: 832.352.0554 or Fax: 832.321.4016  
 Email: [texasaluminumsystems.com](mailto:texasaluminumsystems.com)

