5.15
DT-E

TECHNICAL AND OPERATING DOCUMENTATION

ASSEMBLY INSTRUCTIONS,
OPERATION AND SAFE USE

(original instructions)

5. Steel and aluminium components and assemblies
5.15. Pergola SB400 PRO R

PRODUCT NAME:

ALUMINIUM CONSTRUCTION
PERGOLA (ROOF MODULE) SB400 PRO R

THE PRODUCT MANUFACTURER'S DESIGNATION:

- Manufacturer name:
  SELT Sp. z o. o.
  KRS 0000589791, share capital: PLN 64,000,000
  NIP: 7543103311, REGON: 363154414, BDO No. 000009177

- Headquarters of the manufacturer:
  45- 449 Opole, ul. Wschodnia 23A

- Contact details:
  Tel: +48 534 598 065

- Website
  www.selt.com

- Webmail address:
  kontakt@selt.com

PRODUCT SAFETY MARKING:

The product meets CE safety requirements.

THIS TECHNICAL AND OPERATIONAL DOCUMENTATION:

- is valid from: 01 June 2024.

- applies to the product versions marked above.

TABLE OF CONTENTS

1 INTRODUCTION

1.1 PRODUCT SAFETY GUIDELINES.

The product has been manufactured in accordance with the latest technical knowledge in design and manufacturing technology
and complies with the safety requirements in accordance with the following standards.

Lp.	Subject	European legal basis	Polish Legal Basis
1	Blinds including external slatted blinds. Performance requirements including safety	EN 13659:2015	PN-EN 13659:2015
2	Construction products (CPR)	Regulation 305/2011 of the European Parliament and of the Council	Act of 16.04.2004 on construction products (i.e. Journal of Laws 2021 item 1213), as amended.
3	Essential requirements for machinery	Directive 2006/42/EC of the European Parliament and of the Council	Regulation of the Minister of Economy of 21.10.2008 on essential requirements for machinery (Journal of Laws 2008 No. 199 item 1228), as amended.
4	Low Voltage Directive (LVD)	Directive 2014/35/EU of the European Parliament and of the Council	Regulation of the Minister of Development of 2.06.2016 on requirements for electrical equipment (i.e. Journal of Laws 2016, item 806) Act of 13.04.2019 on conformity assessment and market surveillance systems (Journal of Laws 2019 item 1854) with subsequent amendments
5	Electromagnetic compatibility (EMC) directive	Directive 2014/30/EU of the European Parliament and of the Council	Act of 13.04.2007 on electromagnetic compatibility (i.e. Journal of Laws 2019, item 2388) Act of 13.04.2019 on conformity assessment and market surveillance systems (Journal of Laws 2019 item 1854) with subsequent amendments

Related documents: Declaration of Performance for compliance with EN 13659:2015 and instructions for installation, use of motors and control.

1.2 EXPLANATION OF SYMBOLS AND SIGNS

The following symbols (pictograms) indicate particularly important hazard and safety information.

Pictogram	Meaning of the pictogram	Information
	INFORMATION	Read the instruction manual before using the product. Compliance with the operating instructions is a condition: - failure-free operation of the product, - intended use, - to retain entitlements under, inter alia, the guarantee. For the safety of persons, keep the instructions.
	INFORMATION	No harmful or hazardous consequences for people or objects.
	NOTE!	Situation likely to cause damage to the product or requiring action by the user. No risk to humans.

	DANGER!	This symbol indicates all safety information, the non-observance of which poses a risk to life or health of persons. Risk to health or life. Risk: danger of serious injury or death. Dangerous operation that could cause injury or damage to the product.
	WARNING!	Risk to health or life through electric shock.
	DANGER!	Danger of crushing hands.
	WARNING!	Danger of head injury.
	ENVIRONMENT	Marking of electrical or electronic equipment subject to collection at designated points.

1.3 TERMS AND DEFINITIONS

The terms and definitions used in this documentation mean:

Product (Goods): PERGOLA SB400PRO R
The Pergola SB400PRO system is made of a perimeter frame of powder-coated aluminium profiles and stainless steel elements. The roof structure is made of movable aluminium feathers. The feathers have the possibility to change the angle of inclination. The structure of the product is offered as standard in a colour from the RAL palette after the manufacturer has confirmed their availability.
NOTE: the set comprises: two longitudinal beams (drive and bearing), two transverse beams (front and rear), concealed wall brackets, LED feathers (optional), moving roof consisting of aluminium feathers, concealed cable with pins and motor built inside the beam. The gutters can come in LED or standard versions, have plugs and no water drainage. For versions with 4 gutters, there are angle overflows to enable interconnection between the gutters. The beams are pre-drilled and have reinforcing connectors for wall fixing (optionally without pre-drills).

Movable roof:
It consists of feathers attached to longitudinal beams with adjustable feather angles. The feathers are moved using a mechanism driven by an electric motor through 2 drive arms.

Feather: Part of the product, made of extruded aluminium profiles with an aesthetic appearance. The shape of the tongue allows rainwater to be drained away from the roof surface within the design limits (cf. section 2.2) and protection from the sun's rays and snow load to a limited value (cf. section 2.2).

PERFORMANCE VERSIONS:

Single - Self-supporting structure containing a single mobile roof module together with concealed wall brackets (by default with drilled beams for fixing). It has 2 variations: 2 gutters without drainage or 4 gutters connected by overflows at the corners, also without drainage.

Modular - Self-supporting structure consisting of individual modules connected together by mechanical fasteners (modular screw connections). NOTE: they can only form linear sequences (longitudinal or transverse).

1.4 SUBJECT MATTER, PURPOSE AND CONTENT OF THE DOSSIER

The products manufactured by **SELT Sp. z o.o.** are the subject of this documentation.
The documentation applies to all types of **PERGOLA SB400PRO R.**

The operating and safety instructions, together with the engine manual, must be handed over to the end user.

IMPORTANT SAFETY INSTRUCTIONS
WARNING - FOLLOWING THESE INSTRUCTIONS IS ESSENTIAL
FOR THE SAFETY OF PERSONS
KEEP THIS INSTRUCTION

The documentation is part of the delivery of the product and should be kept close to it at all times.

The documentation includes:

- important recommendations for the installation, use and maintenance of the product,
- important recommendations for transport and storage,
- guidelines to be followed for the operation of the product.

SELT Sp. z o.o. shall not be liable for damage resulting from failure to observe the recommendations contained in this documentation.
In order to further improve the product, SELT Sp. z o.o. reserves the right to make changes which, while maintaining the essential technical parameters, are deemed advisable in order to increase the product's quality of service and safety of use.

2 TECHNICAL PRODUCT INFORMATION

The technical product specification is available by logging on to www.selt.com.

2.1 TECHNICAL PAREMETRES:

Pergola SB400PRO R - single

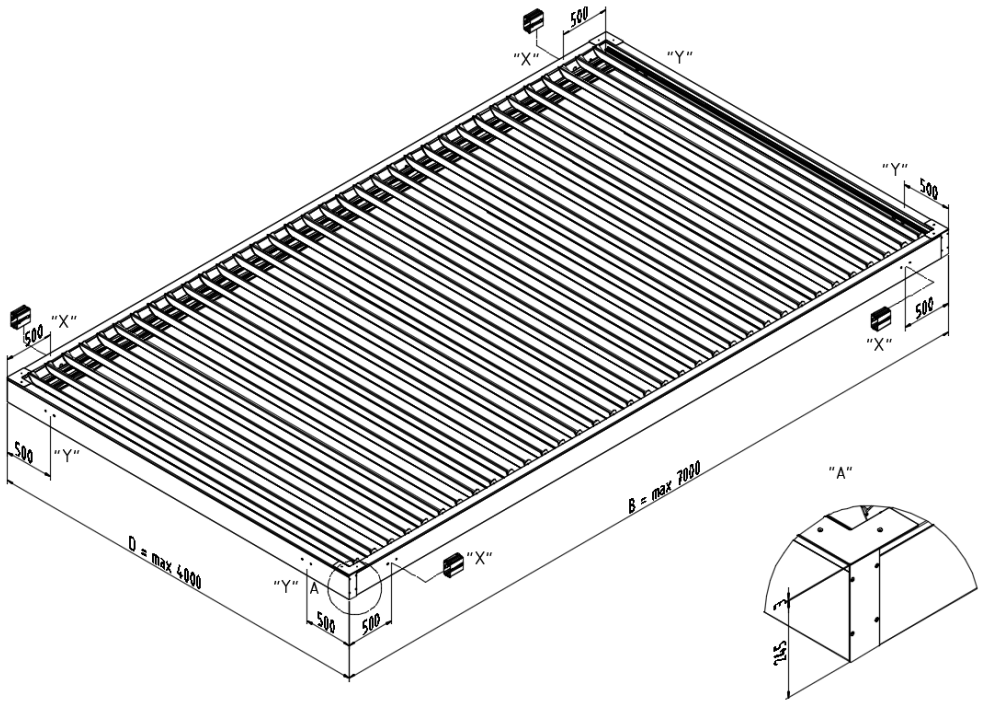

Fig. 1 SB400PRO R single pergola Overall dimensions: **B max** - maximum length, **D max** - maximum width, **H** - height (245 mm + 3 mm corner cap), holes for through-mounting- X=longitudinal beams, Y-cross beams.

Pergola SB400PRO R - modular

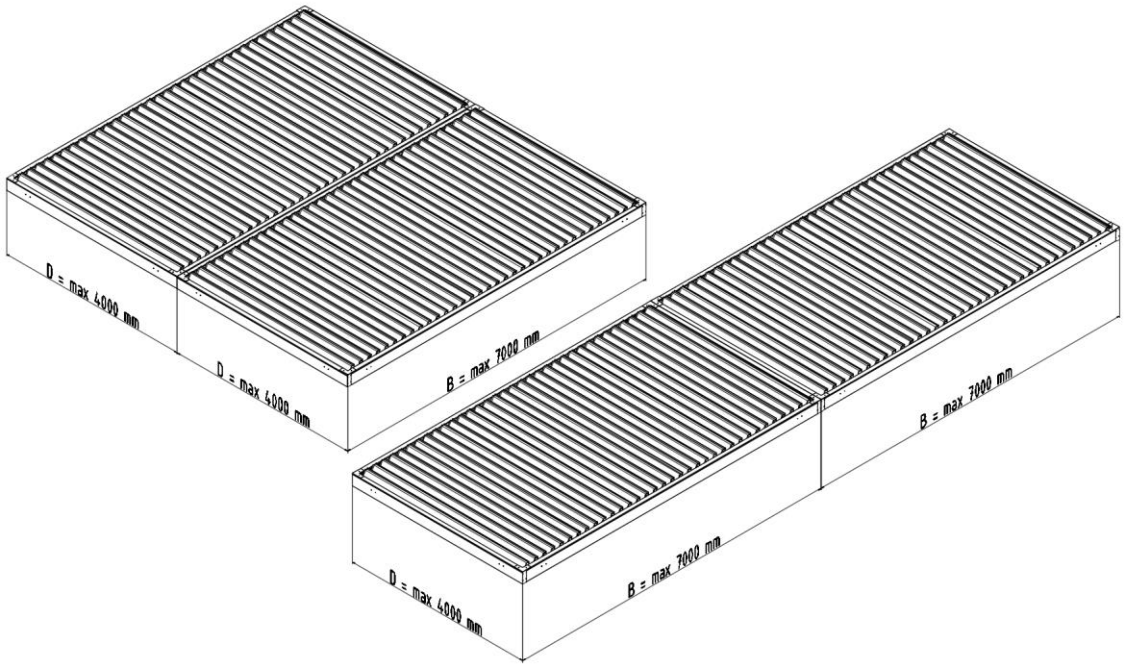

Fig. 2. Pergola SB400PRO R modularly connected linearly - via longitudinal or transverse beams.

System module dimensions:	Width*	Length*	Height framework	working height**
Load-bearing structure	up to 4000 mm	up to 7000 mm	245 mm +3 mm blank	295 (** condition with raised feathers)
Axial spacing of roof feathers	200 mm			
Difference in pen tip attachment (transverse slope - pen axis)	Choice: no difference or 15 mm difference (lowered on beam without engine)			
Scope of use / operation				
Ambient temperature (min/max)	+5 to +40°C (moving roof opening/closing)			
Air humidity (max)	90% non-condensing (opening/closing moving roof)			
Drives (drive types):	Linear motor. The motor can be operated via an external radio control unit.			
Connection to the electrical system	a power cable of approximately 4.9 m (the cable should be properly secured after installation).			
Driven by an electric motor with parameters:				
Engine model	SOMFY Pergola Tilit 0^0			
- supply voltage	24 V DC			
- power	35 W			
- current consumption	2,1 A			
- degree of protection	IP 66			
- continuous operation time	up to 6 min (depending on ambient temperature)			
- extension, axial force	max 300 mm, pull-out force 1500N			
- ejection speed	approx. 6-8.5 mm/s			
- operating temperature (min/max)	-10°C to +60°C			
LED power supply data:				
LED lighting	Optional - LED troughs, LED points in the pens. Power supply 24V DC, 150W, max. 6.25A, IP66 mounted in pergola pole			
Assembly:				
Application	External			
On-site assembly	To load-bearing substrate - fixing through longitudinal or transverse beams			

*-Tolerances on external dimensions are +/-10 mm.
**-drilling for wall brackets for beam with motor only possible for overhang of 260 cm

Detailed engine performance data is available on the engine manufacturers' websites and on the website:

www.selt.com→ OUR OFFER → AUTOMATION

2.2 PRODUCT CHARACTERISTICS

The products manufactured by SELT Sp. z o.o. have appropriate technical and performance parameters.

List of product types:

- single,
- modular,
- mounted outside the building, operated by means of an electromechanical drive connected to the with a control system,

They are characterised by the following features:

- Electrically-openable roof (feathers), designed to provide protection from the sun as well as the rain (according to the parameters of the product and its location).
- Permissible use of the product outdoors in accordance with the product parameters.
- The location, finish, installation method and seals used, as well as intense weather conditions, including heavy rain and/or snow, have a major impact on the level of rain protection the product provides.
- Movable roof feathers allow the sunlight to be regulated.
- Hidden motor and drive mechanism.
- The upper chamber of the beams, which is closed with a revision, allows cabling to be distributed.
- The application and use of the product should take place within the limits of the size limited by the sixth wind class according to EN 13659) and/or the maximum snow load.
- Starting the rotation of the feathers during snowfall, in icy conditions or when there is snow or ice on the roof, as well as use outside the temperature ranges specified in the instructions, is not permitted and may result in damage to the product or even personal injury or death.
- It does not emit toxic substances during its lifetime.
- Noise emissions from an electromechanically driven product (related to the working movement of moving parts, produced by the electric motor, mechanism and pens during operation) are not considered a significant hazard and are a matter of comfort.
- The product's motor has an IP 66 enclosure protection rating.
- The design of the product and drive allows the feathers to be stopped at a selected angle in their working area.
- The rotary movement of the feathers, can be activated by a manual switch or by remote control.
- Variations in the closing angle of the movable roof feathers can be around 2° and are a natural feature of the system due to the manufacturing tolerances of the components and their adjustment during installation.
- The guards for the moving parts are designed and manufactured to ensure the safety of the operators, assuming they are operated correctly.
- Vapour may condense on the product and especially on the lower part of the product and water may run off or drip.
- Waterproof, aesthetically pleasing drainage via integrated gutter and columns with drains.
- Possible 2 variations: two longitudinal gutters without drainage or four gutters on the perimeter connected by overflows at the corners, also without drainage.
- Optional LED lighting in LED gutters and/or pens.
- The maximum drainage capacity drains rain at an intensity of up to 0.04 l/s/m^2 with a maximum duration of 5.3 minutes (dependent on the configuration of the drainage holes). Intensity is given with no inclination of the feather axes. In the case of a difference in inclination, the capacity is reduced and, in the case of prolonged rainfall, may cause the gutter to overflow on the side of the lower feather fixing.
- Permitted use for snow protection (up to 50 kg/m^2)-as an even layer of uniform height.

The use of ordinary silicone for sealing the product is not permitted. Only Crystal Fix or an equivalent sealant with the parameters given in point 4.4 shall be used.

3 TRANSPORT AND STORAGE OF GOODS

3.1 COMPLETENESS AND QUALITY CONDITION OF THE DELIVERY

The goods of SELT Sp. z o.o. are in accordance with their production technology. In the case of any reservations concerning the product or damage to its packaging, such reservations or remarks should be notified to the driver / warehouseman / assembly team and marked on the WZ document under pain of losing any claims on this account, and a protocol describing such reservations or remarks should be drawn up with the participation of the driver.
At acceptance, mechanical defects, scratches, cracks, etc., as well as quantitative objections must be reported in particular, under penalty of being deemed not to exist. Hidden defects must be reported in accordance with the warranty or guarantee conditions.

3.2 GENERAL CONDITIONS FOR TRANSPORT AND STORAGE OF THE PRODUCT

List:

- The product is pre-packed in a cardboard box, which protects it from damage during storage, during transport and during its movement to the final installation site,
- the products to be transported/stored should be positioned in accordance with the arrows on the product packaging,
- products should not be stored in more than 2 layers due to the possibility of crushing the packaging, which may result in permanent damage to the product,
- do not load the product packaging with other objects,
- products placed on the means of transport must be secured against displacement and damage during transport (e.g. spacers, safety belts, etc.),
- during transport the products must be protected from rain or snow,
- storage areas should be dry, ventilated and protected from the harmful effects of the weather (sun, rain, etc.),
- if the weight of the product exceeds 25 kg, its transport to the place of final assembly must be carried out by at least two persons (depending on the weight of the ordered product).

3.3 DESCRIPTIONS THAT MUST MANDATORILY APPEAR ON THE PRODUCT PACKAGING.

Before installing and using the product, carefully read the technical and user documentation available by logging on to http://www.selt.com/dte-pl.

4 ASSEMBLING THE PRODUCT

This chapter contains the general requirements for the installation of the product.
Correct installation is a prerequisite for the correct functioning of the product.
SELT Sp. z o.o. recommends the use of qualified fitters who will have the skills to assemble the product correctly.

4.1 GENERAL REQUIREMENTS FOR SAFE INSTALLATION

- the rules of the trade must be observed,
- the applicable health and safety regulations must be compliedwithparticularly with regard to the safety of working
  with electrical equipment and working at heights,
- the product must be fixed mechanically; foams, adhesives or similar materials must be used in accordance with the recommendations of their manufacturers, taking into account the specific nature of the product,
- the base to which the handles of the product are to be attached should be of an adequate design,
- prior to installation, all unnecessary objects, including electrical cables, must be removed from the installation area (check the course of the installation in the area of the fixing points to ensure that they are not damaged), and the installation area must be marked and appropriate safeguards provided to protect people.

Information table for the substrate to which the substructure is to be mounted
The product should be mounted to a substrate with the right parameters or a substructure with the right parameters.
The aforementioned requirements for the substrate and substructure require the assessment of a specialist and are the responsibility of the developer and contractor.
Other installation methods than those suggested by SELT are possible, provided that the requirements of building and safety knowledge are observed. In any case, this requires specialist knowledge and is done at the risk of the builder or contractor.
It is recommended that arrangements be made in this regard with an authorised designer.

4.2 REQUIREMENTS FOR THE SAFE INSTALLATION OF THE PRODUCT AT HEIGHT

The installation of the product, by necessitating work at height, is particularly hazardous work, as it poses a particularly high risk of danger to the safety and health of people, particularly falls from height.

It is the responsibility of the installer (hereinafter referred to as the Installer) or the party commissioning such work (hereinafter referred to as the Investor) to ensure that a health and safety plan is drawn up during installation.
The developer/installer should specify specific health and safety requirements when carrying out work at height, and in particular ensure:

- direct supervision of their execution by persons designated for this purpose (e.g. works manager, foreman),
- appropriate safety measures, primarily fall protection equipment,
- detailed instruction of workers performing work at height.

Work at a height of more than 2 m where personal protective equipment against falls from height is required must be carried out by at least 2 persons.
Work at height should be organised and carried out in a way that does not force workers to lean beyond the handrail of the railing or the outline of the device on which they are standing. It is not permitted to stand on parts of the product.
The Installer/Installer must ensure that only authorised and appropriately trained and informed persons have access to sites where work at height is being carried out. The Investor/Installer shall inform of the works at height being carried out and of the necessary safety measures to be observed during such works by persons who are or may be in the area where such works are being carried out or in the vicinity of such area.

4.3 PREPARATION FOR INSTALLATION

- unpack the product and check that all the components necessary for its installation are present,
- before installation, check that the substrate/substructure has sufficient load-bearing capacity for safe installation and operation.

Attention:
1) The SB400R frame is drilled as standard and comes with wall brackets including fixing connectors (no ground anchors).
2)to the Installer/Investor topurchase and select the screws, dowels and bolts that connect the system to the structure of the building
.

4.4 GENERAL GUIDELINES FOR ASSEMBLING THE PRODUCT

- The SB400PRO R pergola is an open outdoor patio covering. The equipment under the pergola must be designed for outdoor use.
- 4 persons are required to assemble the supporting frame safely.
- Incorrect installation or errors during installation can have serious consequences in the operation of the product.
- before starting the installation, check that the installation space is free of obstacles, including people and objects, and ensure that the installation space and the surrounding area are properly marked and secured,
- anchoring elements for mounting the product to the substructure are not included, as they should be selected individually by the installer depending on the material to which they are to be fixed (it is recommended to make arrangements with an authorised designer),
- the substrate/substructure must be load-bearing and able to withstand the forces generated by the anchoring of the product and during its use,
- Selt shall not be liable for damage or loss caused by the use of anchoring elements that are too weak or by anchoring in a substrate with insufficient load-bearing capacity,
- protect the product from soiling (e.g. mortar, installation foam, silicone) which may cause damage,
- if it is necessary to use polyurethane foam, silicone or other agents, it is essential to follow the manufacturers' recommendations on the packaging

Incorrect installation can contribute to dangerous situations for the user.

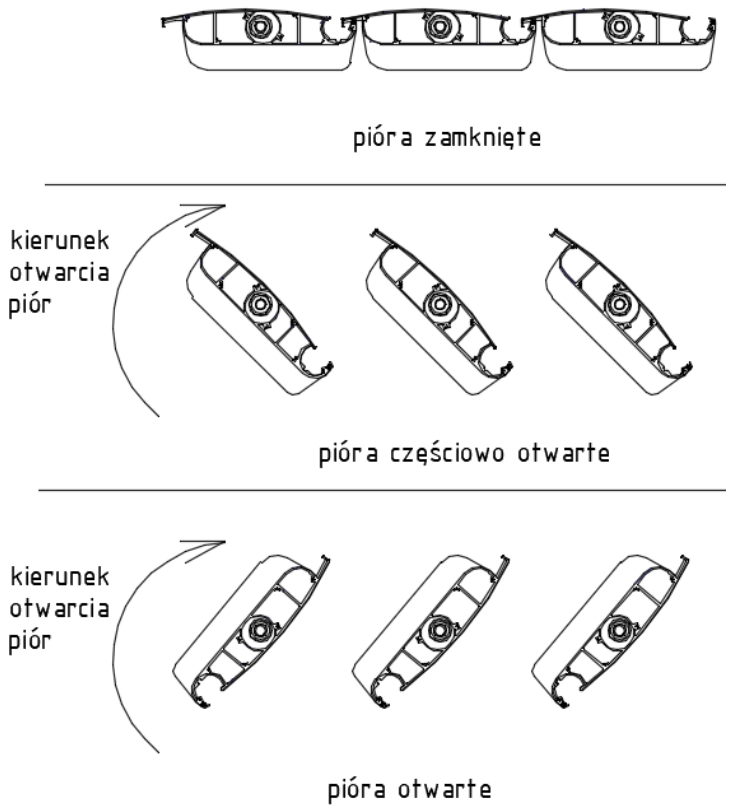

Fig. 3. Standard setting of feather opening direction on Pergola SB400PRO

The illustrations are for illustrative purposes only and do not write off all product features, including those relating to the use of gaskets.

Only the following sealant should be used for sealing: FIX ALL CRYSTAL from Soudal or a product of equivalent performance.

Technical data (according to the sealant manufacturer):

- consistency	Paste	Elongation after rupture	350% (ISO 37)
- time of epidermis formation	approx. 4 min. (at 23stC/ 50% RH)	Permissible deformation	+/-20% (ISO 11600)
-fast curing	Approx.4 mm/24h (at 23stC/ 50% RH)	Thermal resistance (after curing)	from -40 deg C to +90 deg C
- relative density	1.05 g/cm^3	Flexibility module	0.6 N/mm^2 (ISO 37)
- Hardness (Shore A)	38 +/- 5	Max. stress	1.8 N/mm^2 (ISO 37)
Flexible return	>75% (ISO 7389)	Application temp.	from +5 deg C to +35 deg C

4.5 ASSEMBLY TOOLS

Instructions for assembly, operation and safe use after logging in are available at www.selt.com.

List:

- drills for metal and concrete,
- impact drill,
- ladder/scaffolding, crane, basket lift, HDS,
- screwdriver,
- measure,
- hammer
- pencil/writer,
- spirit level,
- spanners,
- pin spanners (Allen keys),
- Rope for securing / retracting / removing components,
- torque spanner.

In addition, persons assembling the product must be provided with appropriate personal protective equipment (such as, but not limited to, protective clothing, gloves, helmet, safety goggles and others according to individual conditions, such as, but not limited to, height protection).

The motor, together with the motor mount and transmission mechanism, is factory-tightened in the drive beam compartment.

4.6 WALL ANCHORAGES

The SB400R module requires anchoring to the supporting substrate. Use 4 anchor points in the corner areas of the pergola. Standard locations are indicated in Fig. 4. Recommended installation by anchoring on longitudinal beams. Anchoring on transverse beams is permitted as an alternative.

Attention:

- We recommend consulting an authorised designer regarding the positioning of the frame anchorage points.
- The through-hole fixing points are located on the longitudinal beams between the feathers. Their position can only be changed in increments of 20 cmi.

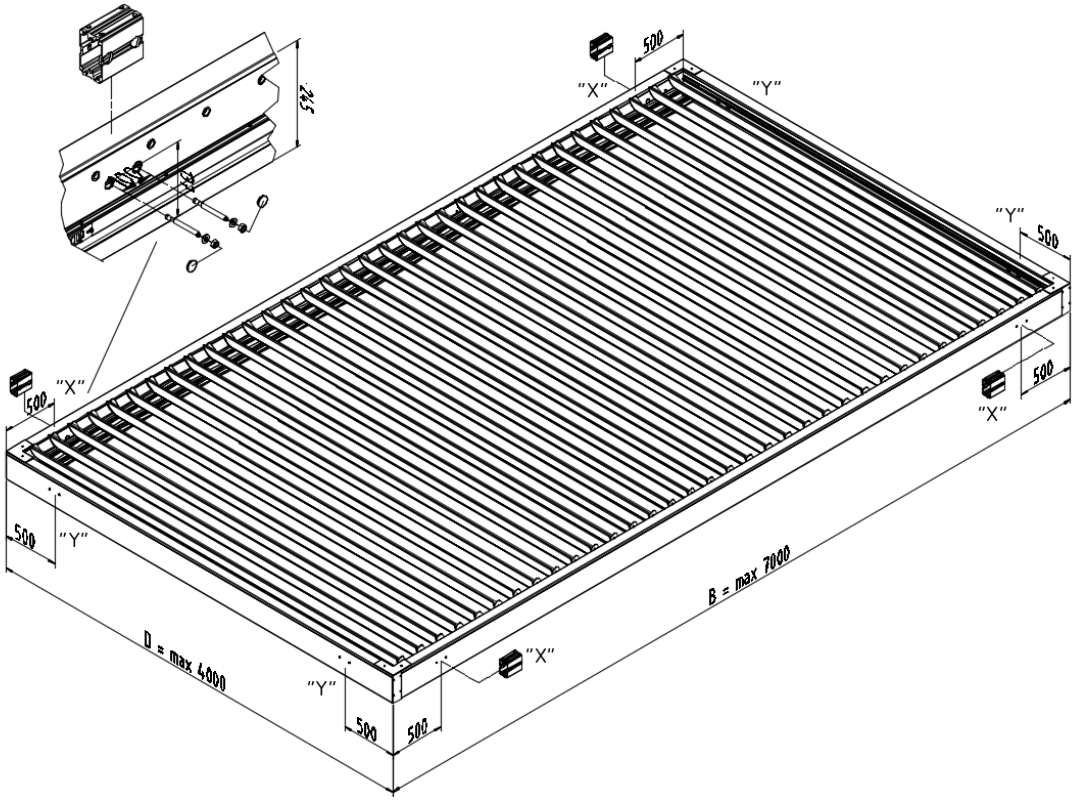

Fig. 4. Recommended anchorage points ("X" - preferred on longitudinal beams - alternatively "Y" on transverse beams)

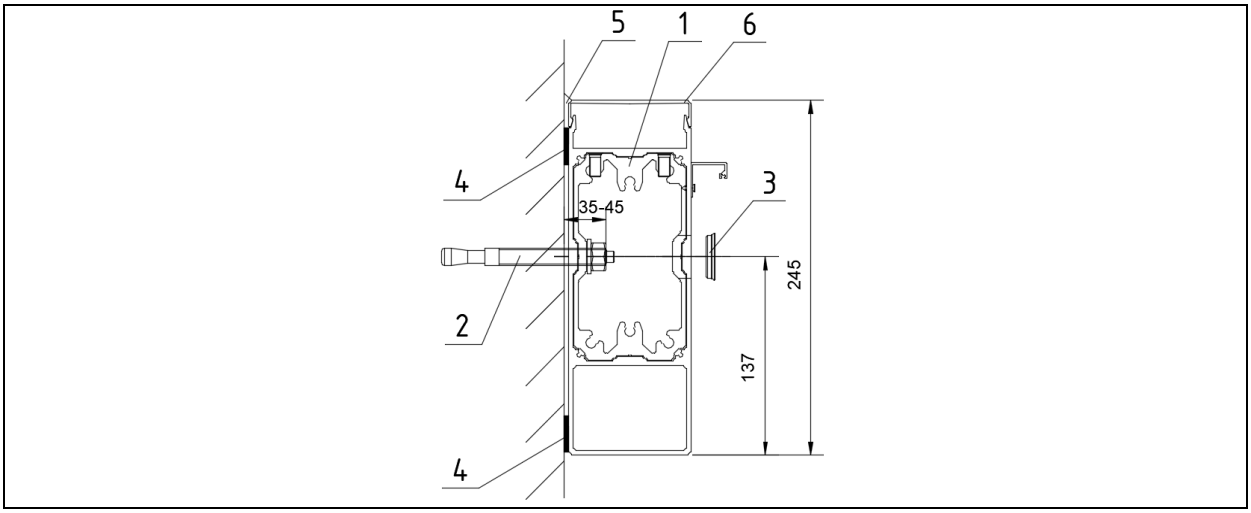

Figure 5 - Through fixing (1- wall fixing reinforcement connector, 2- M12 anchor (not supplied by SELT), 3- painted cap, 4- EPDM tape strip, 5- seal with silicone, 6- beam revision).

	The fitting of EPDM strips (fig. 5 - item 4) is required due to the removability of the revision. It is imperative that the sealing of the revision at the wall junction is carried out in-house with a weatherproof elastic sealing compound (Fig. 5 - Item 5).

NOTE: The through fixings given below are designed for anchoring in a concrete/reinforced concrete wall with a minimum concrete grade of C20/25 (non-cracked). Possible anchors for anchoring the wall bracket:
- Mechanical anchor FISCHER FAZ II Plus 12/10 or equivalent. Anchorage depth min. 60 mm. Minimum distance of the anchor axis from the top edge of the concrete is 75 mm and from the bottom edge of the concrete is 75 mm Minimum substrate thickness 170 mm
- FISCHER FIS A M12x120 screw anchor (galvanised steel, class 5.8) or equivalent. Anchorage depth min. 70 mm. Minimum distance of the anchor axis from the top edge of the concrete is 75 mm and from the bottom edge of the concrete is 75 mm Minimum substrate thickness 150 mm.

- In the case of anchoring to a substrate with a lower load-bearing capacity than concrete grade C20/25, an individual anchorage design must be carried out taking into account the design forces shown in Table 1 or 2.
- In the case of anchoring to a substrate with insulation, an individual anchoring design must be carried out, taking into account the design forces shown in Table 1 or 2.

Table 1 (including snow and wind)

Computational response	Maximum forces *
Vertical shear	10.28 kN

* The force values given in Table 1 are for a single through-wall bracket (for 2 anchors).

Table 2 (including wind only)

Computational response	Maximum forces *
Vertical shear	6.71 kN

* The force values given in Table 2 are for a single through-wall bracket (for 2 anchors).

4.7 ASSEMBLY

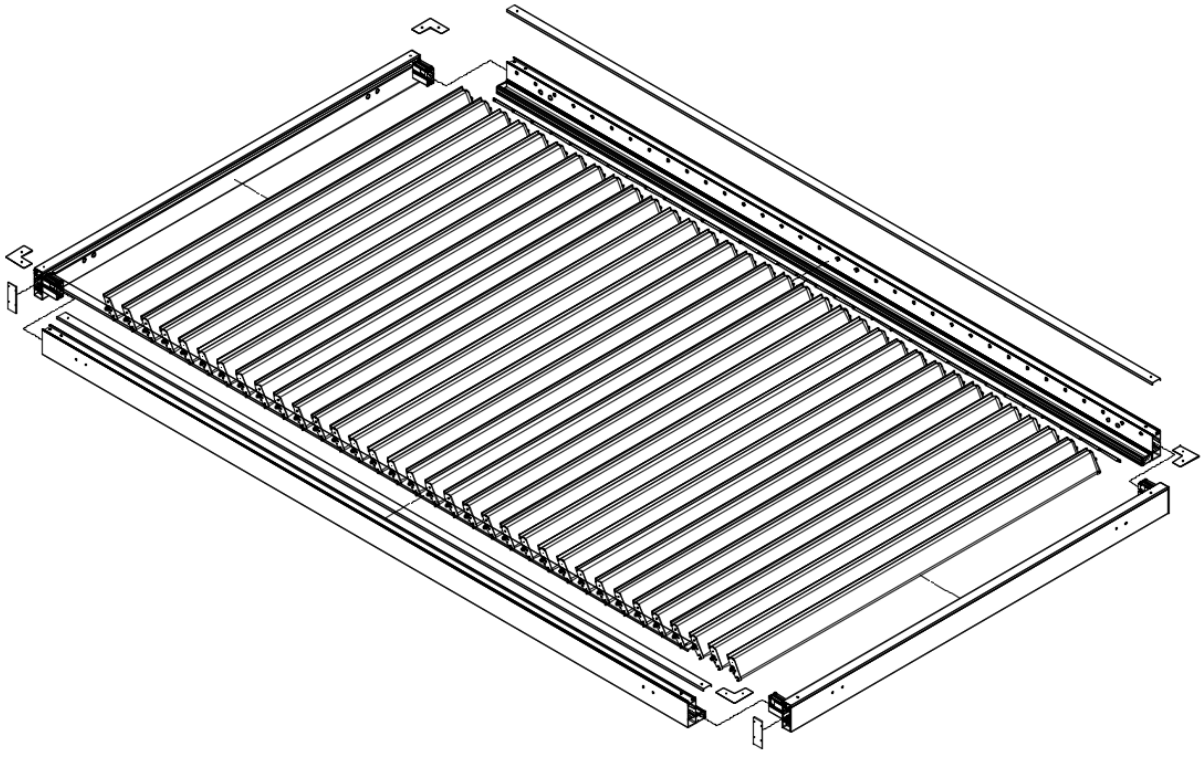

Fig. 6 View of the installation of Pergola SB400PRO R elements with two gutters.

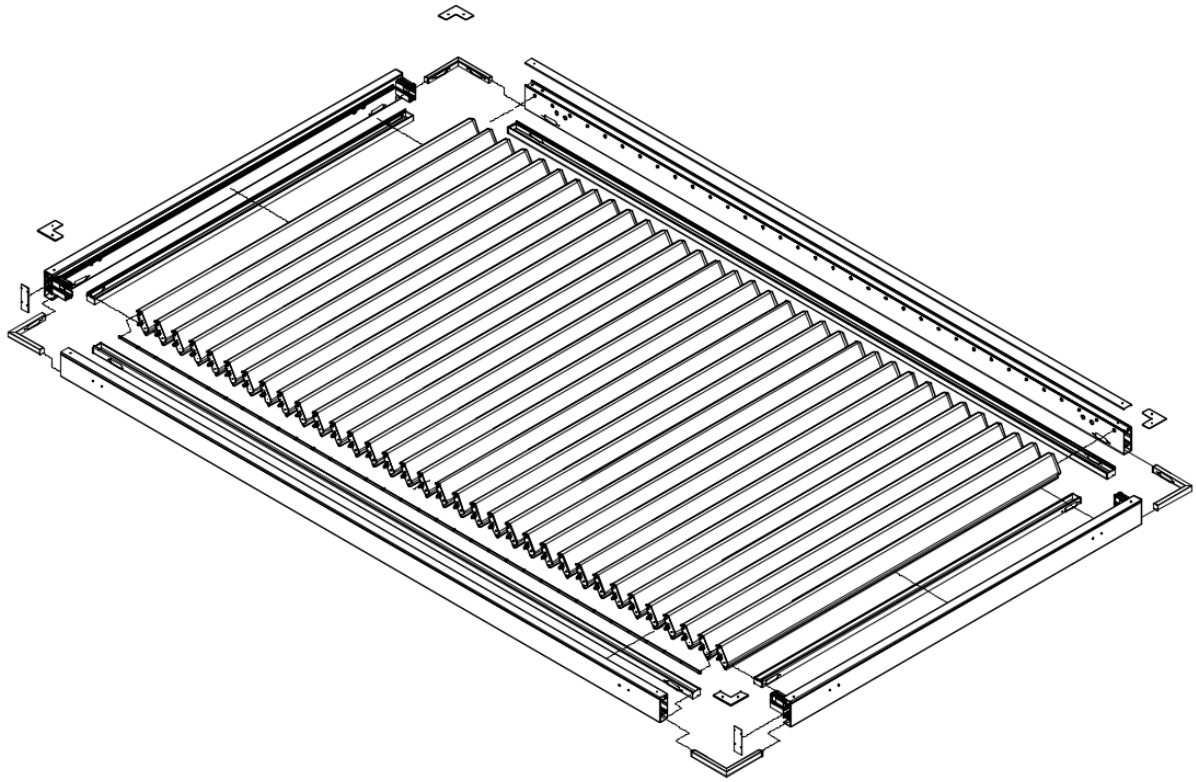

Fig. 7. View of the installation of the SB400PRO R Pergola elements with four gutters.

Attention:

- Before installation, the visual condition of the packaging of the components delivered for installation, the visual condition of the components and their completeness must be verified. SELT Sp. z o.o. shall not be liable for damage occurring after the receipt (passing of risk).
- The components are supplied with packaging and a rudder guard to protect them during assembly.
- Accessories (feet, bolts, screws, small circlips, plastic Clip rings, small and large slip rings, feather pins, silicone, installation instructions) are packed in cardboard boxes.

Attention:

- Before anchoring, the correct assembly of the superstructure must be checked by verifying the diagonals between the columns and the entire superstructure and corrected if necessary.
- The assembled load-bearing structure must be permanently anchored to the substrate at the site by through-anchoring the beams, using anchors to ensure stable fastening. The choice of anchoring must be made by an authorised designer. For fixing the product to the substrate we recommend screws / anchors with a diameter of 12 mm.

4.7.1 ASSEMBLY OF THE FRAME

For the version with 2 gutters, the gutters are already tightened to the beams.
For versions with 4 gutters, the gutters and angle overflows are issued loose and tightened on installation.
Dal both versions, the bones (inserts) for through-wall fixing are fixed in the beam.

NOTE: During assembly, support structure components must be secured against falling onto the assemblers. The assembled support structure (frame) must be positioned in the correct place **and anchored to the substrate with a suitable fixing product**. Suggested anchors size M12. It is up to the purchaser of the system to purchase and select the components for anchoring the structure.

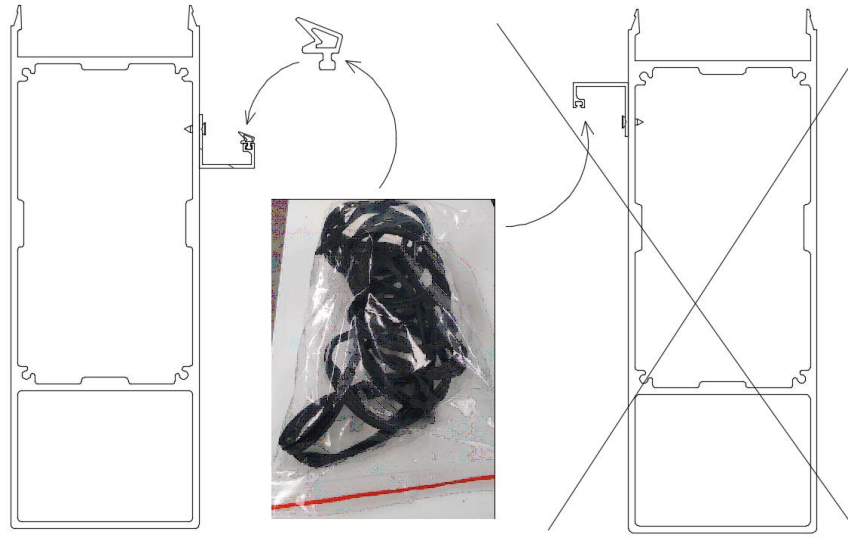

Figure 8

In accessories, a rolled up 1 pc pen seal is issued in a ziplock bag.
Before fitting the frame, the frame must be inserted into the groove of the sealing tongue of one crossbeam, where it is fitted as a "U" (gutter). For the other crossbeam, the gasket is not used.

Installation steps 1 to 3 only for the version with 4 gutters.
The drawings show angle overflows present only for the version with 4 gutters.
The method of installation with 2 gutters is identical (the difference is the absence of an angle overflow).

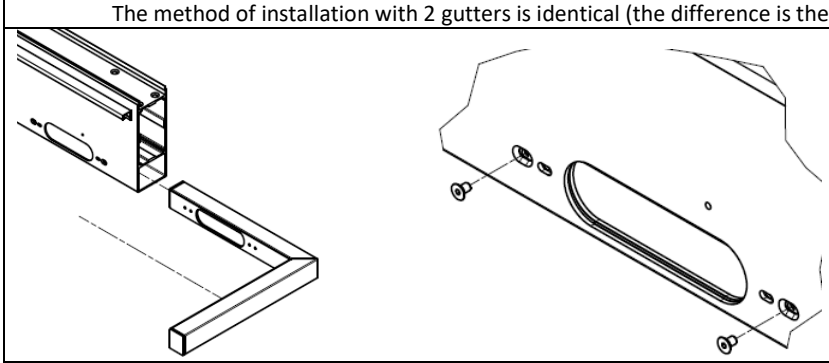

Figure 9

1. Attach an angle overflow to each end of the crossbeams (Fig. 9).
2. Insert the angle overflow so that the side with the bean cutout coincides with the hole in the beam. Before sliding on the EPDM foam of the overflow, apply an additional band of silicone tightly around the edge of the bean hole and around the two small holes at its ends.
3. When inserting, avoid abrading the sealing layer and only apply EPDM to the beam wall after aligning the contours of the beans. Tighten with 2 M5x8 countersunk screws (in the outer holes of the bean with countersinks) (fig.9-right).

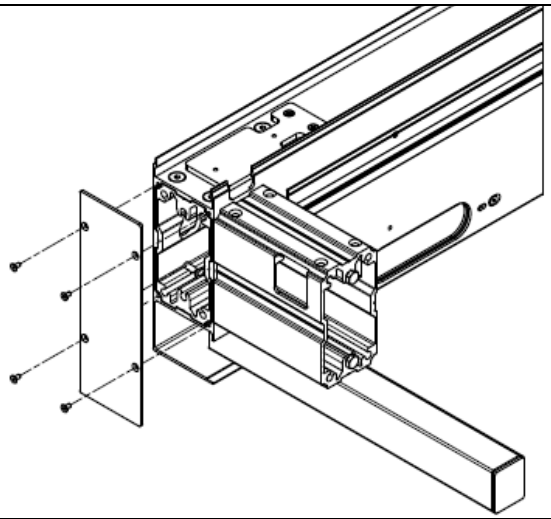

Figure 10

4. At each end of the crossbeam on the side of the fitted angle overflow, tighten the 85x245 cap. Each with 4 M4x8 screws (fig. 10).
5. Repeat for the second crossbeam (both ends).

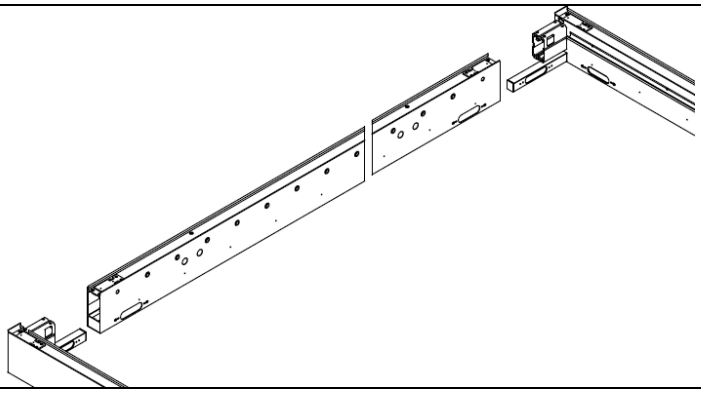

Figure 11

6. The two transverse beams are successively inserted into the ends of the longitudinal beams - with the bone into the upper chamber and the angle overflow arm into the lower chamber with the cap against the wall)- fig.11.
7. Insert the angle overflow so that the side with the bean cutout coincides with the hole in the longitudinal beam. Before sliding on the EPDM foam of the overflow, apply an additional band of silicone tightly around the edge of the bean hole and around the two small holes at its ends.
8. When inserting, avoid rubbing off the sealing layer and only apply EPDM to the beam wall after aligning the bean outlines. Tighten with 2 M5x8 countersunk screws (in the outer holes of the bean with countersinks) (see Fig.9-right).

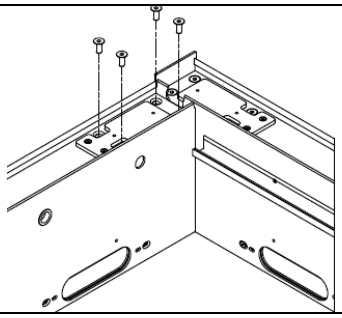

Figure 12

9. The corner inserted into the longitudinal beam is screwed from above using 4 M8x20 countersunk screws (fig. 12).
10. Repeat for all corners of the frame.

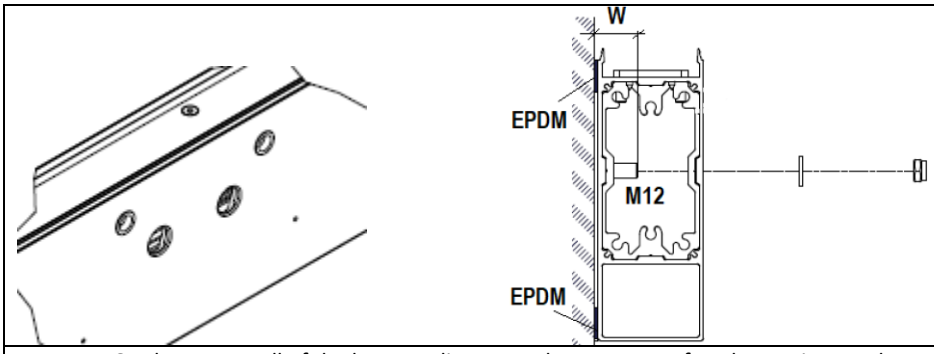

Figure 13

11. On the outer wall of the beams adjacent to the masonry, after degreasing, apply EPDM self-adhesive spacer strips (Fig. 13-right) at its upper and lower edges. This is necessary in order to be able to remove the revision later without damaging it.
12. Place the frame in the target position. At the point where the beam is anchored to the wall, determine the position of the anchors according to the layout of the anchor holes on the rear face of the beam (fig. 13). 2 holes are drilled in each anchor at an axial distance of 100 mm.
13. Install the M12 size anchors (not supplied by SELT) into the substrate, ensuring that they are levelled together and that the axial distances are maintained in accordance with the hole pattern in the beam. Maintain the correct spacing between the anchors and the wall face in the range W= min. 35 and max. 45 mm (fig. 13-right).

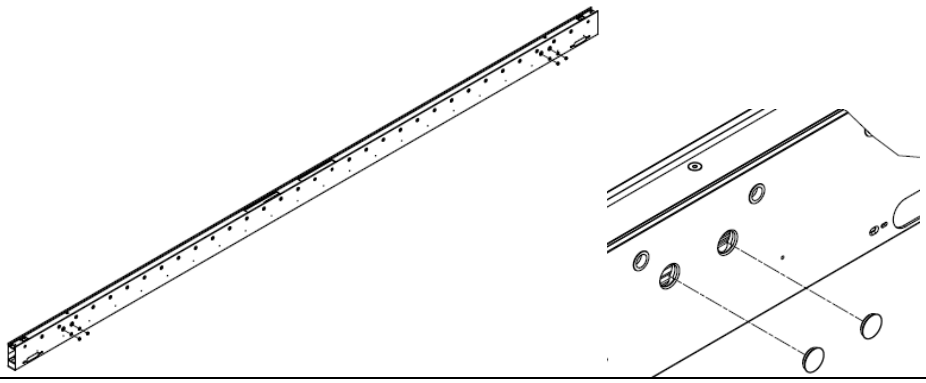

Figure 14

14. Place the wall beam over the anchors (or make a through fixing of the anchors through the beam) and fix the beams using a nut washer from the anchor (size M12). Tighten torque according to anchor manufacturer's instructions (fig. 14).
15. Plug the holes for the anchors in the beam with aluminium plugs set on silicone (fig. 14-right).

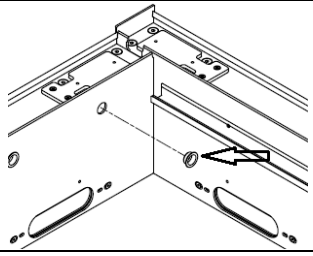

Figure 15

16. Thread the outermost slip rings into the large windows for the feather axles on the longitudinal beams (Fig. 15).

4.7.2 MODULAR ASSEMBLY

Modular bonding is carried out by bolting individual frames together.

Note: Seal the joints of the modular pergolas from above with silicone (EPDM gaskets do not provide a complete seal against precipitation).

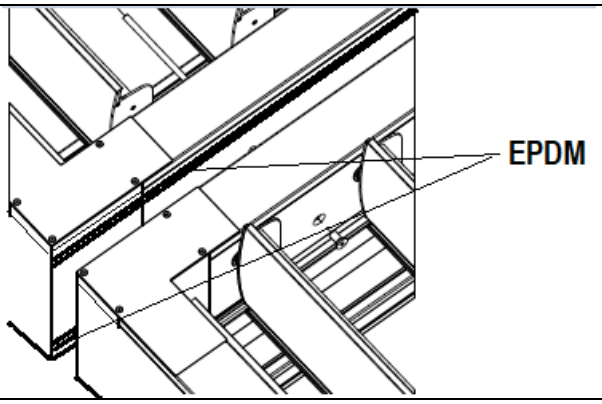

Figure 16

1. Apply, after degreasing the surface, two strips of EPDM tape to the beam of the integrated pergola frame on the side of the second frame to be added. Stick the strips at the upper and lower edge of the beam. It is recommended to glue the edge of the upper strip below the revision lock (fig. 16 and cross-section in fig. 13)- for later access to the inside of the beam.

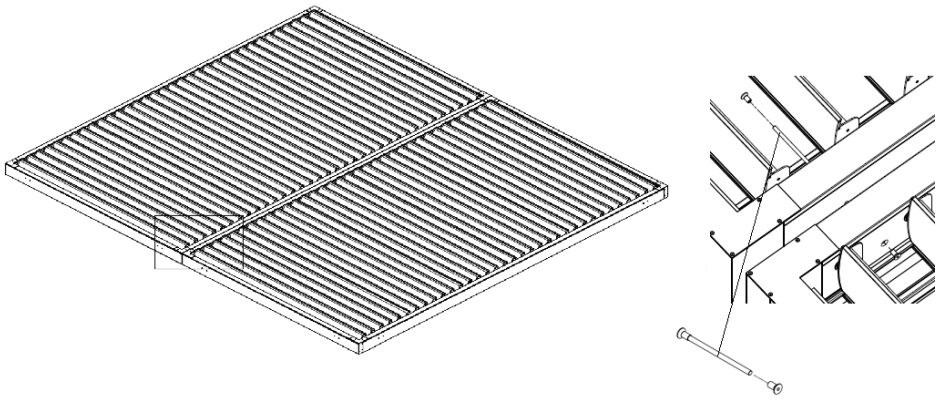

Figure 17

2. Push the frames together, ensuring that the through-holes for the module connectors are aligned.
3. Screw an M8 cone nut with allen socket onto one end of the M8 pin until you can feel the resistance (fig. 17). Thread the pin through the mounting hole on the side of the beams. From the opposite side, screw on the second M8 cone nut with Allen socket (fig. 40). The tightening torque is 17 Nm.

4.7.3 INSTALLATION OF GUTTERS (4 GUTTER VERSION ONLY)

The gutters are factory-tightened to the beams only for the version with 2 gutters. Dal 4 gutters must be tightened on assembly. Pay attention to:
- compatibility and overlap of bean drain openings,
- compatibility and overlapping of the mounting holes in the beam and the upper wall of the gutter
- gutters for longitudinal beams have an overall length equal to the longitudinal beam
- The transverse gutters are inserted between the longitudinal gutters and are shorter than the beams.

	The gutters in the Sb400R PRO modules do not have drains. There is the option of drilling holes in the bottom of the gutters at the indicated locations for the attachment of drains in one of 2 versions: aluminium painted "Water Flow" or plastic (light grey). Depending on the variant, there can be gutters without a side LED chamber and wider ones with an integrated chamber for the LED strip. The gutter covers on the outside may have arched grooves for the cable exit for the LED strip.

Beams and gutters already have drill holes for screws. The outer wall of the gutter to be screwed to the beam must always be degreased before installation.

1. After degreasing, the rear surface of the gutter adjacent to the beams must be sealed thoroughly with a strip of silicone (supplied with the product). Continuity of the sealing strip is required. In addition, make a closed loop around the bean hole of the drain very carefully with the sealant around the perimeter. Also apply an additional two loops of sealant around the openings at both ends of the bean overflow.

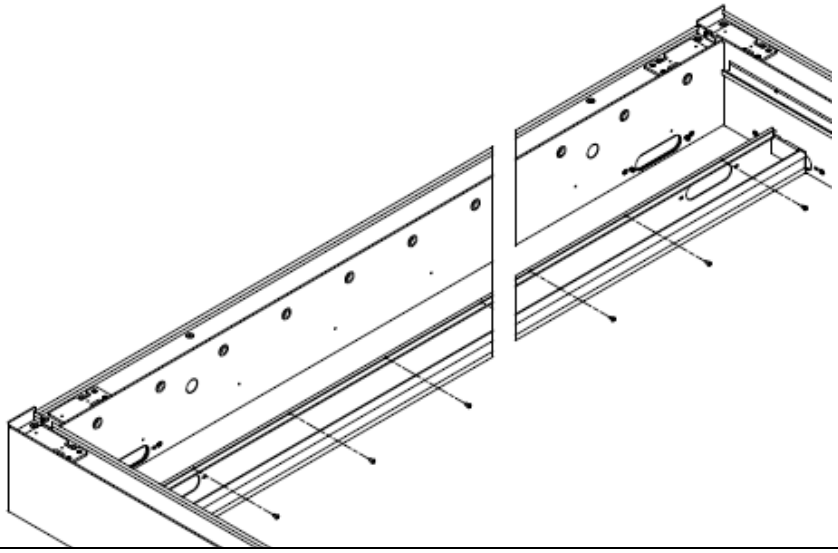

Figure 18

2. Apply the gutter to the beam (align the bottom of the gutter with the bottom of the beams). Ensure that the perimeter of the bean drain and the holes in the gutter and beam overlap.
3. Tighten the gutter with St4.8x13 lacquered screws (Fig. 18).

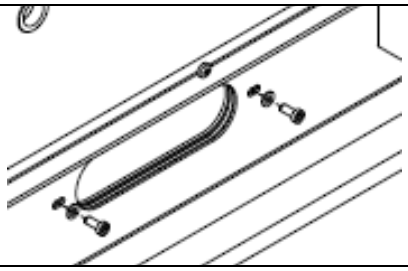

Figure 19

4. In addition, tighten M5x12 socket head cap screws at both ends of the bean drain. Place an A5.3 flat washer under the bolt head (fig.19).
5. Thoroughly coat the edge of the bean hole with a thick layer of sealant by gently flattening it with a moistened finger. In addition, around the heads of the M5 screws also apply the sealant thoroughly.
6. If a safety grille is fitted to the drain, seal the edges before fitting.

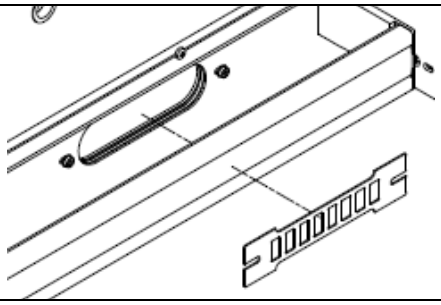

Figure 20

7. It is possible to fit an additional safety grille on the bean drain. To do this, loosen both M5 screws at the ends of the hole and push the ends of the grille forked as far as they will go into one screw and then back towards the other (fig. 20).

8. Perform a thorough sealing with silicone of the areas of potential leakage. These are:
   - top joint between gutter and beams (all round)
   - Inner edge of gutter end cap junction with gutter profile - around the entire perimeter of the junction
   - top contact of transverse trough with longitudinal trough
   - perimeter contact of bean to beam drain
   - lateral connection of the beams to each other or to the posts on the inside of the pergola

ATTENTION 1: During the first heavy rainfall, it is advisable to visually inspect the leak-sensitive contact points and, if any leaks are found, to refill the seals with silicone. These points of contact are usually the joints between gutters and beams, the joints between transverse and longitudinal gutters, the joints at the perimeter of the gutter end caps, the lower edges of the gutters under the lateral oval downspouts, the inside of the joints of the oval overflows in the beams connected to the gutters, the points of the end caps and the rear exit of the wall anchors from the beams, the joints of the perimeter of the beams with the columns, and the joints of the beams with the wall.

ATTENTION2: The condition of the completed silicone sealings must be checked regularly at intervals of max. 6 months and any defects absolutely must be repaired (after degreasing and removal of the damaged or leaking section of the sealings). If leaks or drips are noticed, immediate action must be taken to rectify the lack of tightness.

NOTE3: The safety grille has the effect of reducing the drainage capacity of the gutters.

NOTE: Sealing the perimeter of the gutter cap from the inside reduces the risk of the lower chamber of the gutter bursting in the event of a leak.

4.7.4 CONSTRUCTION SEALING

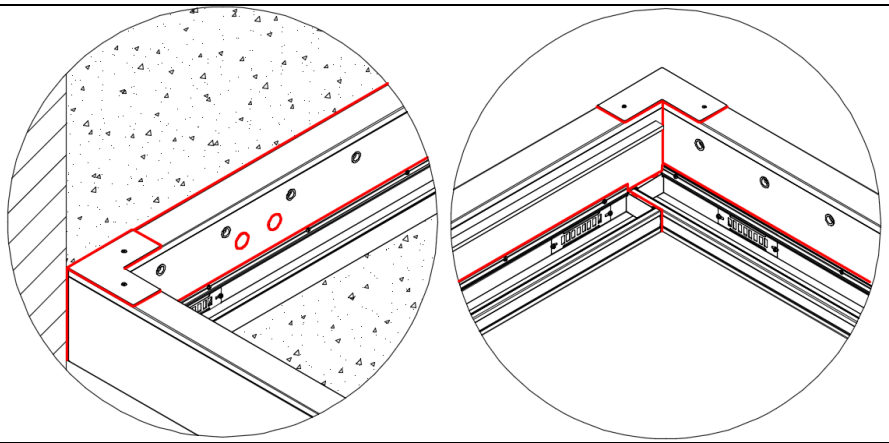

Figure 21

1. For sealing, only use a sealant with the parameters according to section 4.4 or an equivalent product.
2. The joints and crevices to be sealed must be thoroughly cleaned and degreased beforehand.
3. Fig. 21 shows in red the contact lines absolutely required for sealing. These include, but are not limited to: the joists joining the beams to each other (vertical joints), the outline of the angled end caps on the revisions, the top edge of the joint between each gutter and beam, the outline of the joint between the gutter end cap and the beams or adjacent gutter, the outline of the through-anchor end caps, the joint between the revisions and the building wall, the top joints of the pergola modules, and others.

4.7.5 FEATHER ASSEMBLY

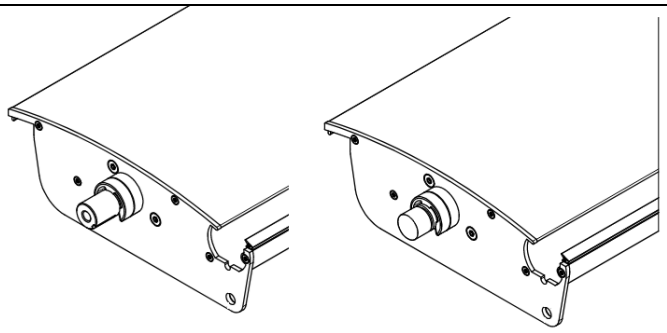

Figure 22

1. The feathers on the drive side have a circular hole in the lower corner of the cap. This is not present on the bearing side (note: the plastic Clip rings on the shafts are not fitted at the factory - they must be fitted later).
2. There are 2 different types of feather pins on the drive cap side (Figure 22):
   - 2 drive feathers have an inner threaded hole and outer groove in the pin
   - other pens have a pin without an internal hole
3. In addition, for variants with light points in the pens, a cable with a plug protrudes from the pins on the side opposite the drive.

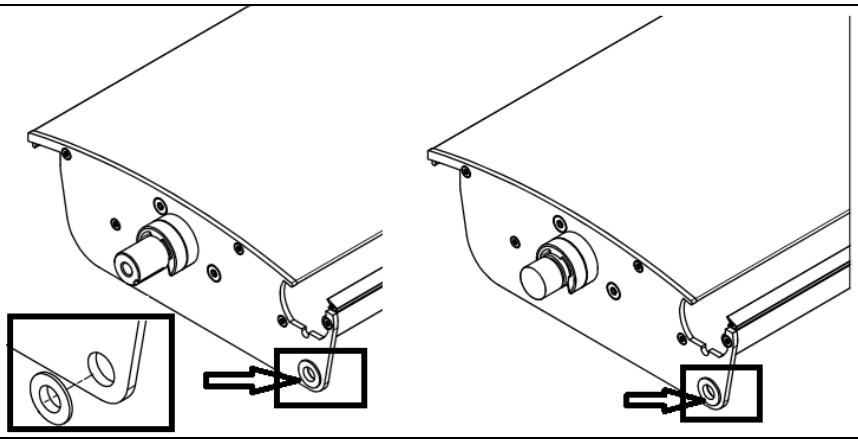

Figure 23

4. Thread small plastic slip rings onto the holes in the lower corner of the plugs from the outside (fig.23). The feather pins do not have factory-applied Clip spacer rings.

NOTE: Clip plastic rings should be fitted in such a way as to eliminate excessive longitudinal play of the pen and to prevent the pen from creating a hazard by falling out.

NOTE : For the seating of all steel circlips, a dedicated circlip seating tool is required.
Inserting steel circlips without using a dedicated tool can create micro-cracks in them and generate cracking and corrosion over time.

Clip rings come in a plastic version (8 mm thick) pressed onto the shaft itself. Provision is made for 4 per pen.

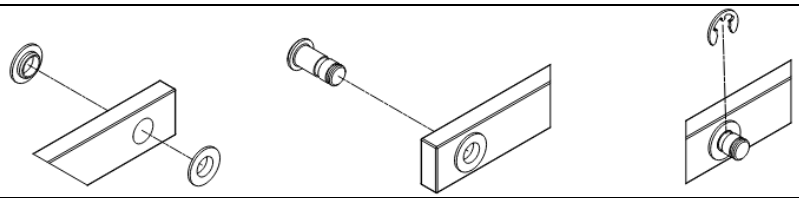

Figure 24

1. Fit small slip rings in the drive linkage - on both sides of each linkage hole (fig. 24-left).
2. Then push the steel pin (fig. 24-centre) fully into each hole with the rings in place and, from the side opposite its head, insert a small circlip in the groove further from the end (fig. 24-right) using a dedicated tool.
3. Repeat steps 1 and 2 for the entire tendon.

NOTE: Press the slip rings precisely into the holes - failure to seat them deeply may result in difficulty in connecting to the feather caps.

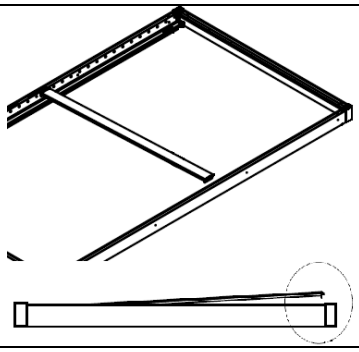

Figure 25

4. Start assembly by inserting the 2 drive feathers. The drive plug side must be located on the motor side. The drive holes of the feathers can be located by the presence of the plastic bands in the 2 holes of the beam.
5. As a first step, cut and remove the bands securing the drive arms to the holes in the beam intended for the drive feathers (mark or remember which holes these are).
6. Place the drive pen over the beam and insert the side with the drive shaft into the drive pen hole (fig. 25). Push all the way in, then lower the opposite end horizontally and slide its shaft into the opposite hole in the beam. Push through the entire pen so that the shaft on the opposite drive side is completely inside the beam.

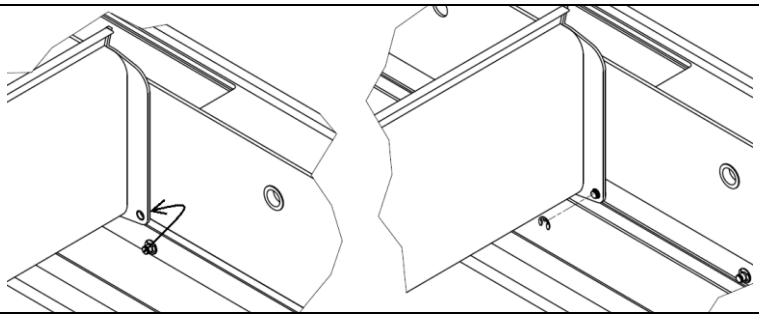

Figure 26

7. The drive linkage, which has previously been reinforced with all pins, is placed in the trough on the side of the drive beam.
8. Turn the pen upright.
9. Raise the linkage to the level of the lower hole in the pen drive cap and apply it from the outside (between the cap and the bar) to the side of the drive cap (fig. 26-left).
10. Press the protruding end of the tie rod pin into the hole of the pen cap (fig. 26-right). When pressing in, take care not to push the slip ring out of the cap.
11. Secure the visible end of the pressed-in pin with a small circlip exactly in the extreme groove of the pin - use a dedicated tool (fig. 26-right).

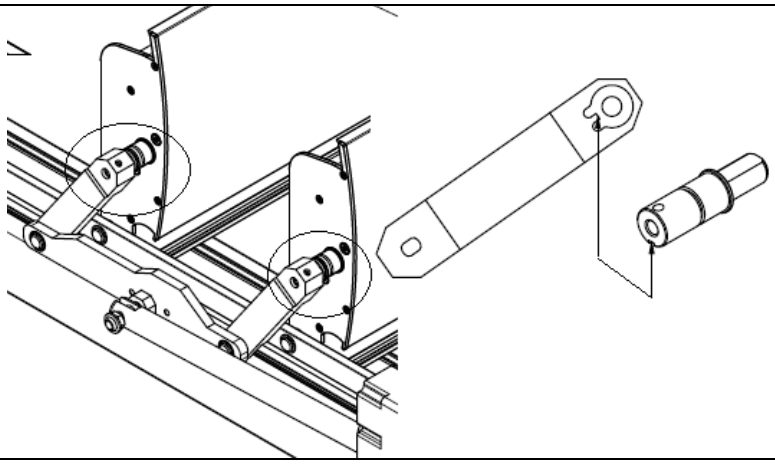

Figure 27

12. Slide one of the drive arms located inside the beam onto the feather drive pin inserted into the beam - using access from the inner window at the top of the drive beam (at the engine). Ensure that the keyways and grooves of the drive arms and the shaft in the pen are accurately aligned (fig. 27).

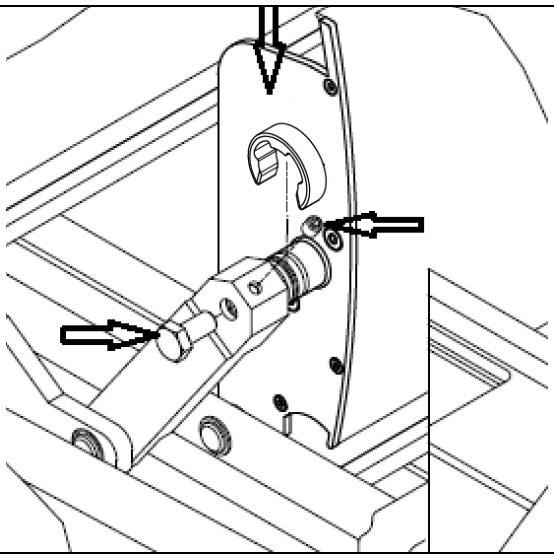

Figure 28

13. Position the tongue vertically and tighten the safety devices: - from the side of the arm into the shaft axis - M8x16 hexagonal screw. Tighten leaving clearance (fig. 28).
14. Place a safety Clip ring on the pen shaft on the beam side (to leave no slack).
15. Also put Clip rings on the shafts at opposite ends of both feathers (to leave no slack).
16. Repeat the above steps for the second drive pen, paying attention to the current linkage already in place (possible need to rotate the pen plane during insertion).
17. Fully tighten the hexagon socket screws in the shaft axis of both feathers (tightening torque 17 Nm) and, at the upper ends of the arms, screw the M6x8 grub screws with Allen socket into the threaded hole (tightening torque 7 Nm)-fig.28

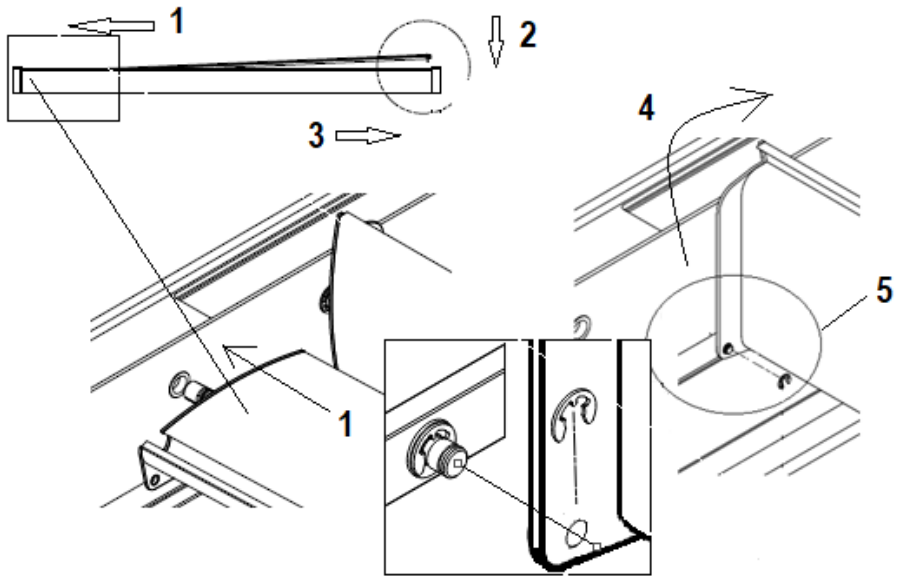

Figure 29

18. Mount the next feathers starting from the place of the already mounted feathers towards the ends of the pergola. Place the tongue horizontally over the beam, tilt it and insert the shaft on the drive side into the hole in the beam. After pushing it in as far as possible, lower the opposite end and insert it into the beam as well (steps 1 to 3 in fig. 29).
19. Insert the tie rod pin from the beam side (fig. 29) When pressing in, take care not to push the slip rings out of the pen cap.
20. Slide the tongue into the drive beam and rotate it vertically so that the tie rod pin slips over the hole in the lower corner of the drive cap. Check the presence of the slip ring in the cap and do not push it out. Secure the visible end of the pin with a small circlip exactly in the groove of the pin (fig 29) - use a dedicated tool.
21. Clip safety ring (insert max. 2 pcs. tight) onto the pen shaft on the drive beam side.
22. On the opposite ends of both feathers also place Clip rings on the shafts (as tight as possible).

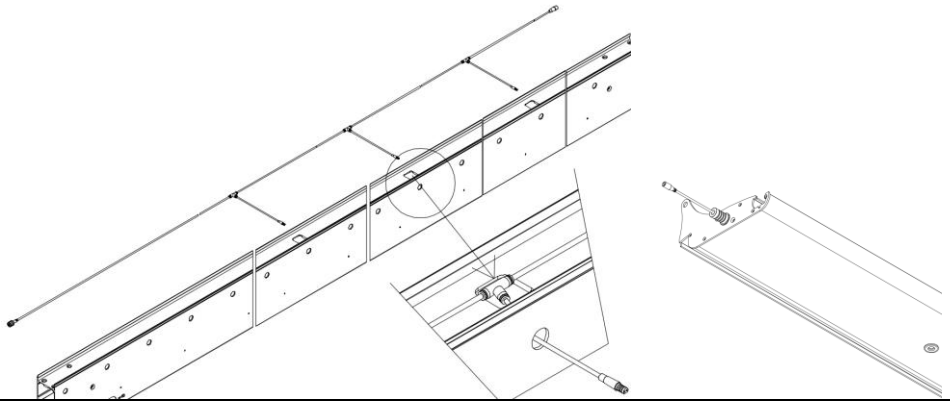

Figure 30

23. Repeat steps 18 to 22 (or up to 25 for pens with LED points) for subsequent pens.
24. If light points are present, follow the steps described in separate DTE No. 5.10.
25. For feathers with light points, before inserting the feather pin into the bearing beam, press together the cable connectors protruding from the beam and the pin (fig. 30). Push the connector inside the beam. Then insert the pen as standard according to the steps above.

4.7.6 INSTALLATION OF REVISIONS AND GRILLES

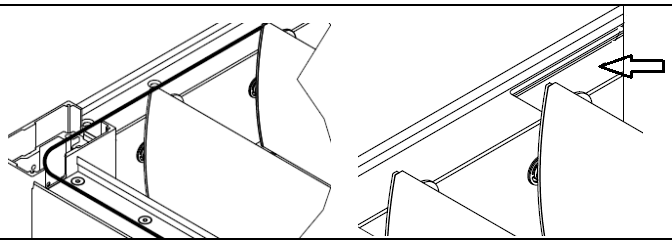

Figure 31

1. Distribute the cabling in the upper (open part of the beams) - fig. 31. The beam connections have open windows in the upper walls for cable routing.
2. Insert the Louver control unit into the window of the top of the drive beam above the motor (fig. 31-right arrow). Insert behind the motor inside the beam chamber.
3. Make and check the electrical connections and test the correct operation of the pen opening and closing mechanism.

NOTE!
Electrical cables should be properly protected. Do not allow the insulation to be damaged by sharp edges of openings.
The TILT motor requires connection to a Louver control unit. The control unit should be connected to a 24 V DC power supply and the power supply to 230 V AC. Connection without a power supply unit will lead to damage to the control unit or the motor and may cause a shock hazard.

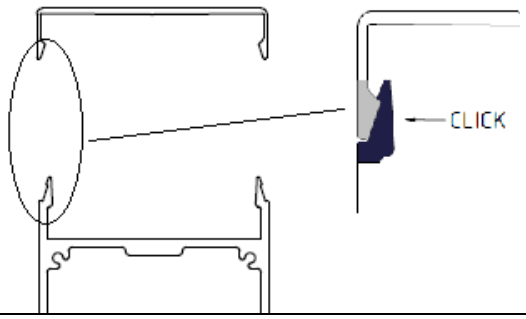

Figure 32

4. Click on the revision (cover) from above on the beams - fig. 32. The beams on the wall side have a lateral spacer of EPDM tape (glued on assembly) to avoid damage to the paint finish of the revision during subsequent assembly or dismantling.

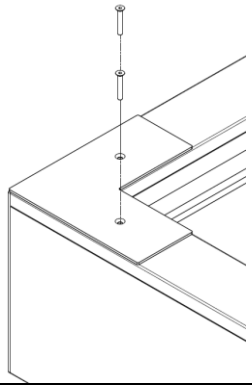

Figure 33

5. In the corners of the pergola, apply corner caps to the revisions The revisions on the transverse beams come to the beam caps at the joint, and on the longitudinal beams to the transverse beam revisions.
6. For the corner of the beams, place a corner plug on the revision and flush with the edges of the revision. Transfer the hole pattern from the blanking plug to the revision. Drill the revision with a 5.5 to 6.0 mm Ø drill bit.
7. Before application, it is advisable to degrease the underside of the plug and apply sealing compound. Place the blanking plugs on the revisions and fit the holes. Tighten from above with M5x35 countersunk screws with Allen socket (Fig. 33). After tightening, seal the screw heads with sealing compound.

Note: Seal the joints between the revision and the wall from above with silicone (EPDM gaskets do not provide a complete seal against precipitation).

ATTENTION : If the drive arms are unscrewed from the feathers, the roof will close abruptly, creating a risk of pinching and crushing.
Before doing so, the feathers must be opened and permanent locking elements inserted between them to prevent them from closing by themselves. The filling must not damage the paintwork.

4.7.7 INSTALLATION OF GUTTER DRAINS (OPTIONAL)

Gutter drains are optional. SELT recommends the use of 2 drains for proper drainage.
There is a choice of 2 types of drain connection:

a) Water Flow - lacquered aluminium with a mounting socket made in the gutter and screwed on (installation described below in steps 1 to 6).
b) Plastic - grey in colour with a through hole made in the gutter and clamped in place (assembly is described below in steps 8 to 12.

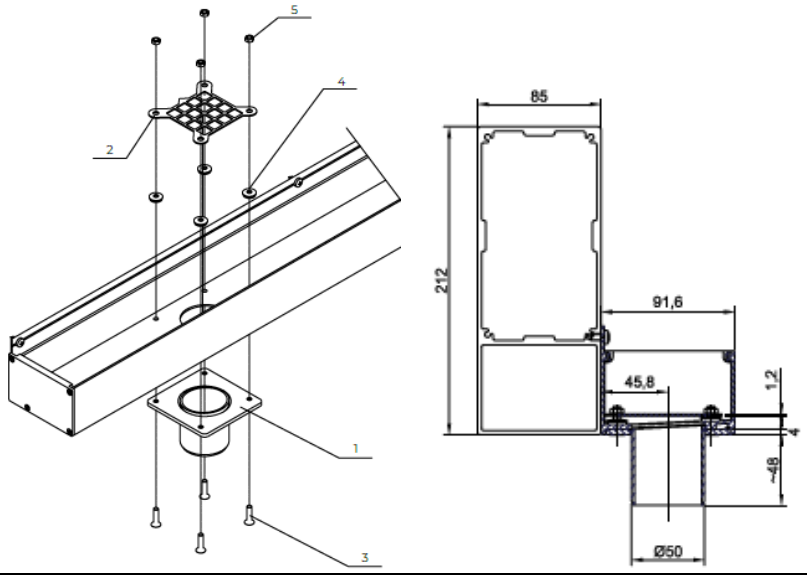

Figure 34

(Water Flow drain)

1. Apply sealant to the drainage element (1) around the outer edge of the pipe edge and around the screw holes

(closed loops). Insert it from underneath into the slot milled in the gutter bottom, paying attention to the slope of the chamfered upper edge of the pipe in line with the slope of the gutter bottom and the alignment of the mounting holes (they are rectangular). Insert stainless steel screws M5x20 with countersunk head and Allen socket (3) into the holes from the bottom - fig. 34.

2. From above, seal around the protruding screw threads (3) with sealant and apply dedicated EPDM washers (4).
3. Carefully use your finger to apply and spread the sealant to the edge of the gutter opening at the junction with the edge of the cut tube (1) - creating an airtight barrier against water penetration throughout the opening.
4. Set the stainless steel grating (2) on the spacers from the washers, positioning it with the spout against the higher wall of the gutter.
5. Screw the entire assembly together using M5 self-locking nuts (5).
6. Carry out a leakage test (bucket of water), checking for any leaks. Improve sealing if necessary.

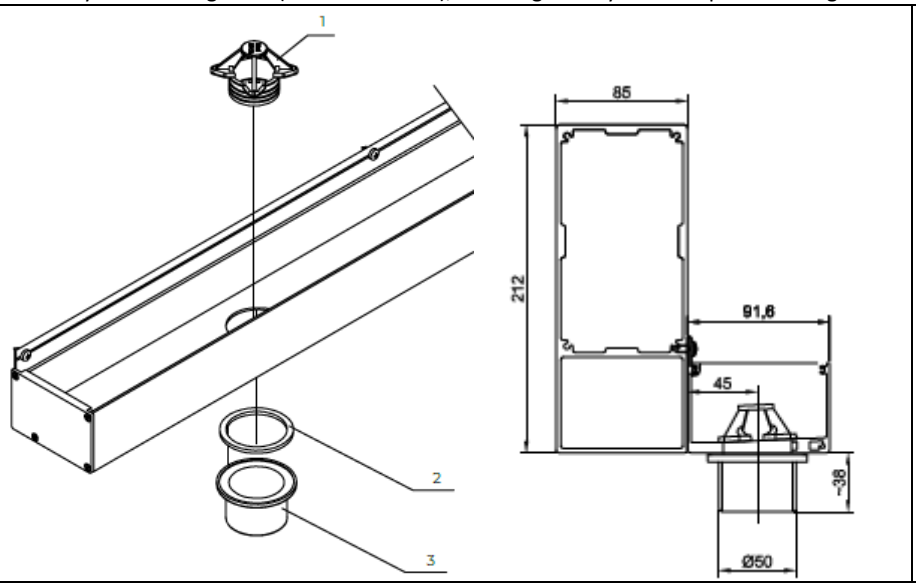

Figure 35

(plastic drain)

7. Seal the edge of the opening in the gutter bottom thoroughly by applying sealant around the perimeter of the joint.
8. From above, insert the plastic basket drain (1) into the opening in the gutter - Fig. 35.
9. Place the factory gasket (2) on the plastic spigot element (3).
10. Screw the two components (1 and 3) firmly together. The strength of the twist and the accuracy of the seal determine the tightness of the entire joint.
11. Complete the seal from the top around the perimeter of the drain.
12. Carry out a tightness test (pouring water into bucket) and check for leaks. If necessary, increase tightening force or improve sealing.

5 PRODUCT HANDLING AND SAFETY

The product may only be used if there are no defects.

5.1 GENERAL HEALTH AND SAFETY REQUIREMENTS

- In order to ensure the proper functioning of the product, SELT Sp. z o.o. forbids any structural changes, failure to comply with the above condition releases the manufacturer from responsibility for the product, from liability for any damage or loss, and the customer loses any warranty or guarantee rights on it.
- During transport, assembly and disassembly as well as during handling, care and maintenance of the product, health and safety and environmental protection regulations must be observed.
- The product should only be maintained and repaired by persons with the appropriate authorisations and qualifications (trained).
- Persons entrusted with the day-to-day use, hygiene and maintenance of the product are obliged to read and observe the operating instructions in their entirety.
- It is not permissible to clean the product in any other way than that described under "Maintenance and repairs".
- Maintenance work and product repair should only be carried out when the product is disconnected from the electricity supply.
- Observe the markings on the product (e.g. pictograms, arrows indicating the direction of movement).
- Care must be taken to ensure that the markings are not covered by a layer of paint or damaged in such a way that they cannot be read.
- The electrical and control installation should be carried out and inspected by an authorised person.
- The switch for controlling the device should be mounted at a height that complies with national regulations for people with disabilities, preferably at a height of less than 130 cm.
- In the event of snowfall, and when the temperature is at or below 0 degrees, the blade rotation mechanism must not be operated.
- If the drive arms are unscrewed from the feathers, the roof will close abruptly, posing a risk of cutting and pinching; before doing so, the feathers must be opened and permanent locking elements inserted between them to prevent spontaneous closure. The filling must not damage the paint finish.
- The SB400PRO R pergola must not be used, including being underneath in the event of storms, hailstorms, heavy snowfall, heavy rain (the roof should remain in the open position).
- The pen working area should be free of any obstructions and objects (e.g. cables, twigs, leaves).
- It is forbidden to stand, climb, load or hang on the pergola structure of persons or things (especially on the roof feathers).
- It is prohibited to attach any objects to the product without the express written consent of the manufacturer.
- It is forbidden to put one's hand between moving feathers and other moving parts or to insert fingers between profiles.
- The product should be mounted at a height that prevents free access to the feathers and mechanisms, and where there is partial free access to these elements, other safeguards should be used to exclude this access.
- In the event of unusual noises from the engine or other components, the power supply should be cut off immediately until it can be verified that a fault has occurred and, if necessary, have it rectified.
- Heat sources such as barbecues, open fires must not be located under the pergola.




5.2 SAFETY REQUIREMENTS RELATED TO SPECIFIC CONDITIONS AND PLACES OF USE OF THE PRODUCT.

The specific safety requirements apply to children up to the age of 42 months. The special use requirements apply in all places where young children have access to or are likely to be present, such as, for example, homes, children's homes, hospitals, churches, shops, schools, nurseries, public places and other places where children may be present. In the event of a change of use to one of the above, the above comments should be implemented.
The special use requirements also apply in all areas where people with disabilities are present.

Before using the product, it is up to the Purchaser to carry out an individual risk assessment of its use with particular regard to the safety of children and people with disabilities.

When determining the performance requirements of a product, it is important to consider reasonably foreseeable conditions of use and potential hazards.

Do not allow children to use the roof control device. Keep the remote control device away from children.

It is absolutely necessary to ensure that children or other personsdo not put their fingers into the moving parts of the roof and the openings in the profiles. Do not let children play near the moving parts of the roof.

Risk of head injury from being in the area of moving roof feathers. It is forbidden to stay in the area of the running feathers and mechanisms. If the drive arms are disconnected from the drive feathers, the feathers will close abruptly on their own - risk of cutting and crushing.

Inspect the installation frequently for signs of wear or damage to the cables. Do not use if repair is necessary.

Avoid contact of the product with hot objects (e.g. heaters, cookers, irons, chimneys, etc.) or placing sources of convective heat (e.g. cookers, cookers, barbecues, etc.) under the mobile roof, as this may lead to damage to the product.

5.3 SPECIAL SNOW LOAD REQUIREMENTS

The manufacturer allows a maximum snow load of up to 50 kg/m^2 on the roof feathers.
Snow can load the roof as an even layer of uniform height.
There must be no localised accumulation and formation of snowdrifts or snow sliding from adjacent roofs and buildings onto the pergola.
Due to the different snow weights due to the duration of snow deposition and the influence of moisture, the snow weight varies over a wide range. Different snow weights according to EN1991-1-3:

Tablica E.1: Średni ciężar objętościowy śniegu

Rodzaj śniegu	Ciężar objętościowy [kN/m^3]
Świeży	1,0
Osiadły (kilka godzin lub dni po opadach)	2,0
Stary (kilka tygodni lub miesięcy po opadach)	2,5 – 3,5
Mokry	4,0

Recalculation of permissible cover thickness

	Permissible thickness of snow cover depending on type [cm]			
Pergola	fresh	settled	old	wet
SB400PRO R	**50**	**25**	**14**	**12**

With snow accumulation, there will be visible and excessive sagging of the feathers and beams and the possibility of localised leaks from the feathers and gutters.
We warn of the need to constantly monitor and react quickly to the increase in coating thickness, particularly during additional wind exposure.

5.4 OPERATING SAFETY

Recommendations and actions:

- the product is safe to use provided that the instructions in the documentation are followed and that it is installed correctly,
- use the product only for its intended purpose,
- It is forbidden to use a product which does not comply with shock and fire safety requirements,
- keep remote control devices out of the reach of children, they are not a toy,
- it is forbidden to exceed the specified product operating parameters set out in the technical and user documentation,
- the running time of the electric motor is defined in point 2.1 "Technical characteristics" (it depends on the motor type and manufacturer, details are available on the motor manufacturer's website or www.selt.com). Exceeding the specified operating time of the motor can lead to permanent damage to the motor,
- It is forbidden to use a faulty or incomplete product or to carry out makeshift repairs; such use may damage the product, endanger the health and life of the user and may invalidate the guarantee,
- no sharp objects or protruding parts should be kept in the vicinity of the guards, which may catch on on the moving roof and damage it,
- the system must not be operated, including rotation of the blades, in heavy snow, rain, frost or hail (it should remain in the open position),
- it is not permitted to be under the pergola during violent or intense weather phenomena (e.g. heavy rain, heavy snowfall, thunderstorms, hailstorms, strong winds, etc.),
- a wind sensor is strongly recommended,
- the system should be cleaned regularly and serviced at the intervals indicated,
- use only original spare parts,
- all work relating to the inspection and repair of the product should be carried out by a suitably trained person with the required authorisations and qualifications,
- it is forbidden to use the product and the electrical installation without valid and required inspections and measurements,
- it is essential to disconnect the product from the electrical system before carrying out any maintenance or cleaning work,
- when working on the façade of a building to which the product is anchored, the product must be disconnected from the power supply,
- look out for any signs of wear or damage to electrical cables,
- if you notice signs of wear or damage to the electrical cables, disconnect the product from the power supply and have the fault rectified by an authorised person,
- in the event of very noisy operation of the motor or other components, switch off the power supply immediately and have the fault checked and repaired if necessary,
- It is forbidden to use or leave sharp objects on the product,
- if an automatic weather sensor is used (wind/sun), it should be switched to manual mode during the period: when the product cannot be used (e.g. due to lower temperatures, suspected malfunctions, during inspection and maintenance periods, when the installer operates the product's blades and mechanisms); it is also recommended to switch off this sensor and open the roof in case of prolonged absence,
- the product should be cleaned regularly, at least once a year, and more often as required under conditions of increased pollution (e.g. urban environment) and in coastal environments,
- when cleaning the product take special care because of moving parts and possibility of injury; disconnect the power supply, mark and secure the work area properly; before cleaning of the product remove loose dirt with a hoover with a soft brush or broom and then clean with water and mild detergents using a soft cotton cloth; after cleaning always rinse the surface of the feathers with water (use cleaning agents in accordance with the manufacturer's instructions); it is forbidden to use abrasive agents or pressure washers which may damage the lacquer coating,
- moving or rotating parts of the product should be lubricated annually with silicone spray,
- the product must be inspected continuously and contaminants such as branches, leaves, birds' nests and other objects must be removed at all times; when removing these contaminants, care must be taken that they may fall on persons in the vicinity of the product or on objects under the product,
- The use of sharp objects on the product may damage the paint finish,
- roof coverings in urban and coastal environments are exposed to pollutants (smoke, smog, acid rain, salty seawater), which results in soiling of the paint coating. The product should be cleaned regularly, at least once a year, and more often under conditions of increased pollution and in coastal environments.

Do not operate the product in strong gusts of wind, during snowfall, freezing rain or in very heavy rain, as the product may be damaged or destroyed and people in the vicinity may be endangered (applies to product installed outdoors). In such cases, the roof feathers should be in the closed position.
Wind automation is recommended to help meet safety conditions.

In the event of any irregularities in the operation of the product, immediately notify the relevant SELT Sp. z o.o. service centre. Using a defective product and attempting to repair it yourself poses a danger to health and life and may result in the loss of warranty rights, among other things.

5.5 CONNECTION TO THE ELECTRICAL SYSTEM

Once Pergola SB400PRO R has been assembled, the drive and control system can be connected to the previously prepared installations: power supply and control. It is the responsibility of the installer/investor to prepare the installations.

The connection to the electrical supply system is to be made on the basis of an individual wiring diagram drawn up in advance, taking into account the principles of electric shock protection.
The connection must take into account the environmental conditions in which the product will be used and the recommendations contained in the DTR of the motor. Annex at the end of this document.
Normal environmental conditions:

- Such conditions exist, for example, in living quarters and offices, auditoriums and theatres, classrooms (with the exception of some laboratories), etc.

Environmental conditions with increased risk:

- Hazardous environments include bathrooms and showers, kitchens, garages, cellars, saunas, pet rooms, hospital operating theatres, hydrothermal pumps, heat exchangers, spaces enclosed by conductive surfaces, campsites, open areas, etc.

In rooms and spaces where there are conditions of increased risk, automatic devices should be used to switch off the power supply to the faulty product, e.g. residual current circuit breakers.

Residual current circuit breakers:

- recommended for use in bathrooms, kitchens, garages and cellars,
- mandatory for swimming and showering pools, saunas, construction sites, the power supply of outdoor equipment, agricultural and horticultural farms, camping sites and recreational vehicles, as well as rooms at risk of fire.

Residual current circuit breakers are only a supplement to direct contact protection, they cannot be the only means of protection. Their function is to supplement protection when other means of protection against direct contact are ineffective or in the event of carelessness on the part of the user.
When connecting, the safety regulations for use must be taken into account, e.g. the minimum height, from the floor, at which electrical equipment can be installed.

General guidelines for safe connection:

connection must be made by an electrician with electrical qualifications and professional experience,
observe health and safety regulations when connecting,
electrical connection and setting of the motors must be carried out in accordance with the motor manufacturer's instructions enclosed with the product / available on the website listed below.

A detailed description of the conditions for shock protection purposes to be met by the electrical installation which is to supply the product.

In accordance with the standards in force in the country concerned. Depending on the consumers used and the control configuration.

Power class	What we feed	Type of installation	Overcurrent protection	Protection against electric shock
Class I equipment has basic insulation which provides protection against direct contact. In addition, in order to provide protection against indirect contact (interference protection or supplementary protection), a protective conductor (PE) or a protective-neutral conductor (PEN) is connected to the protective terminal of the appliance. This achieves: 1. protection by automatic de-energisation through the use of suitable devices 2. limitation of touch voltages to levels not exceeding the safe touch voltage (UL) values established for the given environmental conditions.	24V motor supplied by a 230V/24V inverter Class I device	It is necessary to use a 230V~3-core installation (protective conductor, neutral and phase conductor)	Fuse matched to the power of the consumer	Residual current circuit breaker
Class II equipment is characterised by the use of reinforced insulation, which provides both direct and indirect contact protection. Another way to provide protection against electric shock in Class II equipment is to use primary and secondary insulation. Because reinforced or additional insulation is used, it is not necessary to connect the equipment enclosure to the protective earth conductor, and it is possible to supply equipment in this class, for example, via two-wire cables with IEC C7 connectors. Protection class II equipment is marked, e.g. on the nameplate, with an appropriate symbol (so-called square within a square).	24V motor supplied by a 230V/24V inverter Class II equipment	It is sufficient to use a 230V~2-core installation (neutral and phase wire)	Fuse matched to the power of the consumer	Residual current circuit breaker

The electrical connection and adjustment of the motors must be carried out in accordance with the motor manufacturers' instructions.

The instructions are enclosed with the product and are also available on the motor manufacturers' websites:

www.selt.com → OUR OFFER → AUTOMATION

Incorrect connection of the motor can damage the product or create a hazard.

The motor is fitted with a thermal cut-out that will switch off the drive after approximately 5 minutes of continuous operation to protect against overheating (depending on external conditions). After being switched off by the thermal protection, it is necessary to wait until it has cooled down. The waiting time depends on the type of motor and the ambient temperature (usually after about 16 minutes the thermal protection should switch off).

	**Important** Conductors passing through a metal wall should be protected and insulated with a sleeve or cover. Fix the wires to prevent them coming into contact with moving parts. If the receiver is used outdoors and the power cable is of type H05-WF, install the cable in a UV-resistant channel, e.g. under a gutter. Provide access to the receiver's power cable: so that it can be easily replaced.
	**Warning** Always make a loop in the supply line to prevent water penetration into the consumer!

5.6 CONTROL

Programming of the control (assignment of remote controls, weather sensors and other controls) should be done in accordance with the control manufacturer's instructions.

		Drive and control io Somfy
LINEAR MOTOR		Somfy Pergola Tilt 24V io 300 mm 0° with Hall sensor
RADIO RECEIVER FOR THE ENGINE		Pergola io Louver
PILOT	Pilot	Situo 5 io PURE II
	Remote control * for sun sensor version	Situo 1 A/M io
	Remote control * for sun sensor version, with wheel for ergonomic brightness control of the White LED Receiver io control panel LED lighting	Situo 1 Var A/M io Situo 5 Var A/M io
WEATHER SENSOR	Wind sensor *	Eolis io 230V
	Wind and sun sensor *	Soliris io 230V
	Sun sensor *	Sunis Wirefree sensor io
	Rain sensor *	Ondeis 24V
CONTROLLER	to LED *	WHITE LED RECEIVER io DIMMING
	for radiant heaters *	Heating Slim Receiver io on/off
	Control via internet*	Tahoma switch

* - at an extra charge

⚠	**The control unit may only be mounted inside the drive beam (through a window above the motor) or externally in a housing with a protection level of at least IP65. Failure to comply with the control unit manufacturer's instructions will result in the loss of warranty.**

Connecting the wires of the SOMFY Pergola Tilt 0 motor inside the Louver controller (fig. 36):

3] Okablowanie Pergola Tilt io z lub bez enkodera						
Pergola io LOUVER CONTROL	**+Vdc** (Napęd M1)	**0 Vdc** (Napęd M1)	**+Vdc** (Enkoder M1)	**0 Vdc** (Enkoder M1)	**C1** (Enkoder M1)	**C2** (Enkoder M1)
	Zasilanie napędu +24 Vdc	Zasilanie napędu 0 Vdc	+24 Vdc Enkoder	0 Vdc Enkoder	Wejście "Otwarty kolektor" Enkoder kanał 1	Wejście "Otwarty kolektor" Enkoder kanał 2
Kolorowe przewody Pergola Tilt io	Brązowy	Niebieski	Czerwony	Czarny	Żółty	Zielony

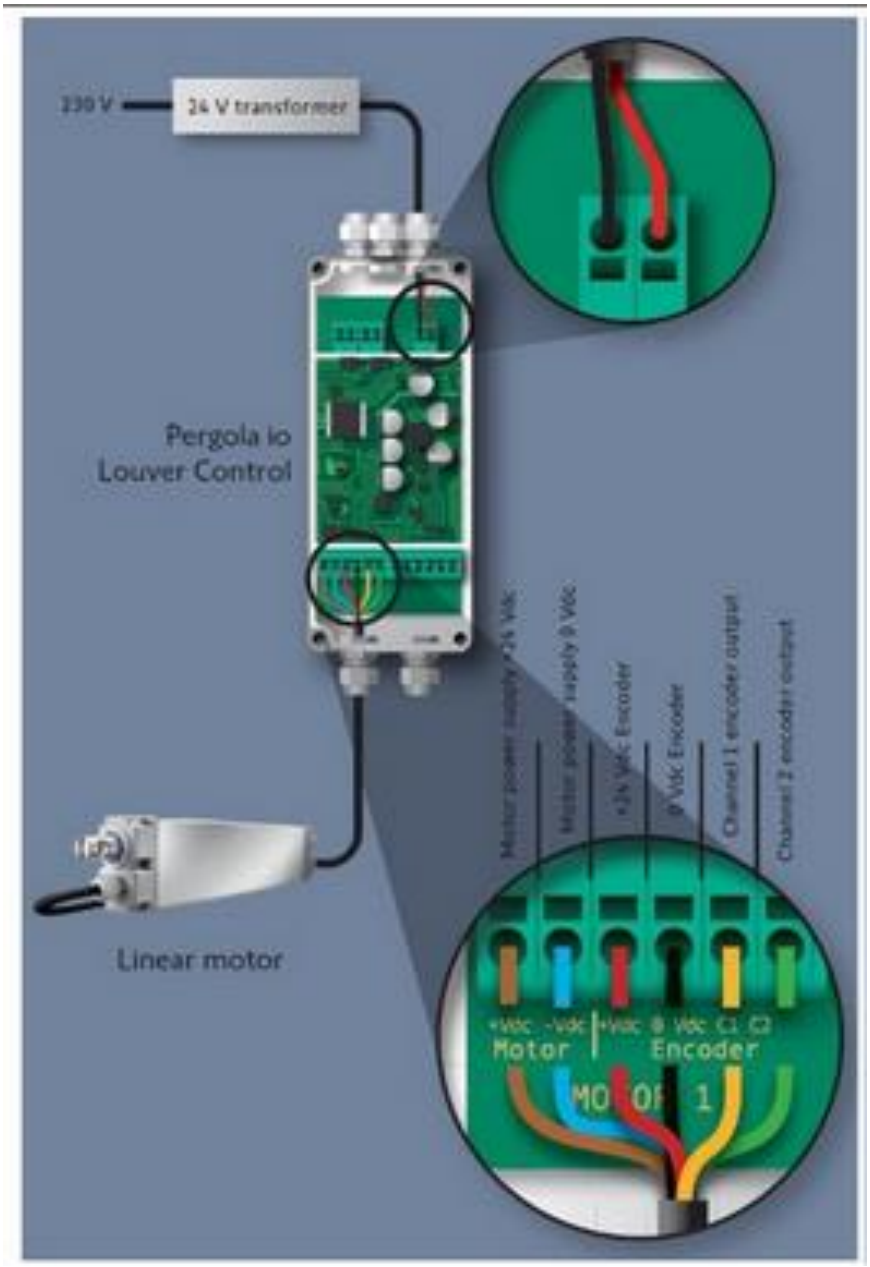

Fig. 36 Diagram of the connection areas inside the Pergola io Louver control unit

5.7 COMMISSIONING AND ADJUSTMENT

Recommendations and actions:

- the end positions of the feathers (closed and open position) must be adjusted during installation,
- person adjusting the limit switches should have knowledge and experience in this field,
- adjustment of the limit switches must be carried out in accordance with the DTR of the motor; special care must be taken in any adjustment because of the need to operate in the working area of the feathers and mechanisms,
- before commissioning the product, electrical measurements must be carried out, primarily to check the effectiveness of the neutralisation of the product and the electrical installation by a qualified person,
- do not start the drive motor without checking that the product is correctly fitted,
- do not lean or hang on the product or leave tools on it when setting the stops,

When commissioning a mobile roof, special attention should be paid to:

- correct and uniform rotation of the moving roof blades.
- correct tripping of limit switches

The unauthorised adjustment of end positions, by an untrained person, can lead to personal injury or death, as well as the product.

Carry out the programming scheme for the remote control according to the manufacturer's instructions (Somfy) for the Louver control unit.

Troubleshooting io control

Symptoms	Possible causes	Solutions
The driven product does not work.	The wiring is incorrect.	Check the wiring connected to the Louver control unit and modify if necessary.
	The drive is in thermal protection mode.	Allow the drive to cool down.
	The battery of the Somfy io transmitter is discharged.	Check if the battery is discharged and replace it if necessary.
	The control transmitter is not compatible.	Check compatibility and replace transmitter if necessary.
	The Somfy io transmitter used is not programmed into the receiver.	Use a transmitter that is already programmed or programme a particular transmitter.
The driven product stops too early or too late.	The end positions are incorrectly set.	Re-adjust the end positions.
The 'we' position does not work.	The item 'we' has been removed.	Program the "we" position.
It is not possible to delete the 'my' position with the Easy Sun io transmitter.	The transmitter you have is obsolete (index E or earlier).	Delete the "we" position with another assigned transmitter.
The system is equipped with a wind sensor and the driven product moves to the upper end position every hour.	The sensor is assigned/set.	There is radio frequency interference or the sensor is out of operating range. Place the Louver receiver outside the beam.
	The battery of the Somfy io wind sensor is discharged.	Check if the battery is discharged and replace it if necessary.
	No power supply for the sensor supplied with 230V	Check the power supply to the sensor.

Despite the fitted wind sensor, in high winds the driven product does not move to the upper position.	The sensor is not assigned/set.	Refer to the relevant instructions to assign/set the sensor.
The positioning of the product in the end positions appears imprecise.	The linear track setting is incorrect.	Set the linear track once again.
	The drive is on the verge of overheating.	Allow the drive to cool down.

5.8 MISUSE OF THE SYSTEM

THE FOLLOWING MUST NOT BE CARRIED OUT

- Use of the product in the event of a defect or suspected defect; it is recommended that further use of the product be discontinued.
- Report the fault to the supplier / system fitter / installer.
- Discontinue use of the product if there are signs of wear or damage to the electrical wiring and report concerns immediately to the direct supplier.
- Do not stay in the working area of the mobile roof while the system is in operation.
- Do not use a faulty or decomposed system. Use of such a product may damage it and create a risk to the health and life of the user and may void the warranty.
- is forbidden to use a product that does not comply with the requirements for shock safety and firesafety
- It is forbidden to exceed the product operating parameters specified in the technical and operating documentation.
- Do not keep any sharp objects or protruding parts near the system, which may snag and scratch it,
- Use not in accordance with DTE.
- Leaving the side screens unfurled at wind speeds above 49 km/h

Persons assigned to handle

- Do not allow children to play with the components used to operate the system, e.g. the remote control or the switch.
- Keep the remote control away from children.

SB400PRO R pergola working space: risk of crushing, clipping and dragging

- Do not touch moving parts when closing or opening the moving roof. This may cause crushing, cutting, pulling in or jamming between, for example, the blades and other components of the system.
- It is forbidden to disengage the drive arms from the drive feather pins without first locking the space between the feathers - the feathers will fall rapidly of their own accord due to the eccentric mounting.
- There must be no obstructions within the working area of the mobile roof that could interfere with its operation or cause damage to it.
- In the event of a feather overrun, the roof should be opened slightly in the first instance and then the obstacle removed.
- It is not permitted to be in the pivot zone of the pens while they are in operation.
- No obstructions (cables, branches, etc.) may be in the area when the feathers are rotated.
- It is forbidden to put one's hand between the moving feathers and to put one's fingers in the area of the profiles and drive mechanisms.

Automatically controlled products may start up automatically. When carrying out any work on the product, permanently immobilise the product so that it does not start accidentally. Make sure that no dangerous situation arises.

6 USE AND MAINTENANCE OF THE SYSTEM

6.1 INTENDED USE OF THE SYSTEM

The system must be used in accordance with its intended use as specified by the manufacturer. If the system is operated and modified in a manner other than that described in this documentation, the system manufacturer has grounds to disallow warranty or guarantee claims.

SB400PRO R pergolas manufactured by SELT Sp. z o.o. do not require any special maintenance. Using the product in accordance with the manufacturer's recommendations assures the user of proper functioning of the product.

If the product is used in a manner other than that described in this documentation or modified without the authorisation of SELT Sp. z o.o. then it is used incorrectly.
Unauthorised changes affecting the safe operation of the product are not permitted.

After rainfall, when the feathers are opened, there is an outflow of residual rainwater in the gutters under the pergola. This is due to the own deflection of the feather causing residual water to remain in the centre of the feather. The amount of water is greater when the ends of the feather are fixed horizontally and reduced when the feather has a difference in inclination between the ends.

To minimise the amount of residual water, it is recommended to open the feathers to 90 degrees and wait up to a few minutes for the remaining water to drain into the gutters. You can then continue opening the feathers to their full extent.

Proper use of the product includes:

- normal use or foreseeable use, which does not include, for example, risks taken by the user intentionally or knowingly,
- application of permissible operating values,
- compliance with operating recommendations,
- carrying out periodic product inspection and maintenance,
- comply with the requirements set out in this Documentation,
- to comply with the requirements under "Technical specifications".

In case of misuse:

- the product may endanger operators,
- the product will be exposed to damage,
- This may have a negative impact on its functionality,
- not to use the system during maintenance or repair work, or in other cases as indicated by the manufacturer.

The gutters in the system are supplied by the manufacturer as sealed components.
The sealing of joints between gutters during installation is the responsibility of the builder/installer and is not covered by the guarantee.
Carry out periodic checks for leaks and seal repairs at intervals of no more than 6 months.
Additional sealing from the inside of the gutter cap's perimeter reduces the risk of the gutter's lower chamber bursting in the event of a leak (water can unnoticeably accumulate in the chamber at the lower edge of the gutter and freeze during freezing temperatures).

SELT Sp. z o.o. is not responsible for damage caused by improper use.

Operating the system out of sight can cause serious injury as well as damage to the product.
If side screens are used in the product, not retracting them in winds above 49 km/h (13.6 m/s) may result in deformation of the structure or damage to the system.

6.2 INSTRUCTIONS FOR NON-EXPERTS

Non-professionals are those who carry out activities related to the day-to-day use and ongoing maintenance of the product.

Before using the product, read this documentation carefully.
A thorough knowledge of the documentation allows for fault-free and safe operation of the product.

List of activities that can be performed by non-experts:

- ongoing use of the product via remote control,
- ongoing inspection of the product by opening and closing the roof feathers with continuous observation of all product components,
- having the product serviced, repaired and cleaned by a specialised installer.

6.3 INDICATIONS OF RISK , ACCIDENT OR INCIDENT

Description of residual risk

Risk factor	Description of correct procedure
Accident	- disconnect the product from the power supply, - take first aid measures on casualties - call for help tel. 112
Product failure (hazard)	- disconnect the product from the power supply, - remove users from the danger zone, - In the event of fire, use only ABC-class fire extinguishers, - notify the fire brigade if necessary, - notify the service company - if the failure only results in blockage of the product without additional hazards - check the section "Product failure (blockage)".
Product failure (blockage)	- disconnect the product from the power supply. - perform an external visual inspection for the presence of foreign elements in the feathers or drive, - check visible parts of the cables for insulation damage or discontinuity, - in the absence of obvious causes, check the point "engine overheating" - inform the supplier in order to obtain a solution
Spontaneous feather closure (when the drive arms are disconnected)	- before the arms are disconnected from the feather pins, the filling/securing between the feathers must be fitted in the open position to block their descent
Strong wind (above 49 km/h)	- We recommend the use of a wind sensor that closes the laths, which is more advantageous in terms of the wind resistance of the entire structure. The wind speed value is determined according to the wind class for the structure.
Snowfall and icy conditions	- in the event of snowfall, place the slats in the snow position (slightly open) - the permissible snow load must not be exceeded - in winter when there is a risk of snowfall and slats icing up, we recommend opening the slats to the snow position. is possible to use an automatic controller that automaticallyopens the slats slightly (snow position) when temperatures are close to freezing and rain or snow falls. **CAUTION** If snow or ice builds up on the fins when attempting to start, mechanical damage may occur. It is recommended to use a motor with an overload sensor.
Intense rainfall	The system is adjusted for rain protection (for a certain rain intensity). In the case of heavy rainfall, the pens are left in the open position. drives have a protection classat least IP65 and are mounted under a cover (canopy). Protection is therefore provided against drops falling from any angle, but care must be taken to position the power cable so that rain drops do not run down the cable towards the motor.
Electrocution,	The electrical installation must be carried out in accordance with the standards that apply in your country. electrical conductors with double insulation and with additional protection to protect the conductors mechanically and against UV radiation - residual current protection
Short circuit in the installation and fire	conductors with the appropriate cross-section according to the power of the

	consumers and the selected overcurrent protection - overcurrent fuse according to the power of the consumers
Engine overheating	The motor is designed to operate with cooling intervals. For DC motors, there is usually no thermal fuse, so the controller should ensure that the running time is limited.
Faulty control system (engine)	Risk due to possible failure of control system components. of short-circuit at the input of the device - the overcurrent protection of the supply line will be triggered. relay contacts,short-circuitingboth contacts of the controller - short-circuiting the contacts of the DC motor relay or the solid-state switches, depending on the configuration of the switching elements, can short-circuit the supply line and then the overcurrent protection will trip - faulty motor control - defect in the electrical installation
Noise	Noise during drive operation does not exceed 70dBA. Typically it is between 50 and 60 dBA when measured at a distance of 1m. noise is generated whenproduct's fins.
Important additional notes	Technical data can be found on the motor nameplate. The moving parts of the motor must be mounted at a height of more than 2.5 m above floor level or another surface from which there is access to the motor.

6.4 MAINTENANCE AND REPAIRS

Ongoing inspections

This is carried out by the customer himself. SELT recommends that servicing is carried out at the times stated below.

Basic activities comprising the current review:

- Visual inspection and ongoing removal of foreign bodies that may interfere with the correct operation of the product and the movement of the mechanisms (on an ongoing basis at least once a day before use and after violent atmospheric phenomena),
- Checking the patency of drains (optional for gutters) - once a week and after heavy downpours,
- Gutter debris removal (optional for gutters) - once a week and after heavy downpours,
- Checking the thickness of the snow accumulation - in the event of snow accumulation on the product - on a daily basis and additionally after heavy rainfall or blizzards,
- Removal of excessive snow (above the snow load limit) and any snow drifts and overhangs - each time the snow load is exceeded and if the snow load is unevenly distributed,
- Visual inspection and ongoing removal of phytosanitary contamination (as soon as noticed),
- If a fault is observed, disconnect the product from the power supply and have it repaired immediately,
- Observing the opening and closing of the feathers with continuous observation of all parts of the product - depending on the frequency of use - at least once a week,
- Disconnect the product from the power supply (in particular in such a way as to prevent the product from being started up by the automatic control system) before servicing the product's moving and electrical components,
- If the product is placed at a height of more than 2.5 m, it is recommended that the above work be carried out by a specialised team.

Technical inspections

This is carried out by SELT or a specialised installer on commission after the warranty period has expired. The scope is defined in each case by the specialised installation team and the execution is confirmed by a service protocol.

Cleaning

It is essential to disconnect the product from the power supply before cleaning.

Cleaning of metal / aluminium components:

- It is recommended to clean light dirt on accessible metal / aluminium surfaces with water and mild detergents, using a soft cotton cloth, always rinse after cleaning (if necessary).
- Remove phytosanitary contamination (as soon as it is noticed).
-

Prohibited activities when cleaning the product:

- The use of pressure washers, as well as cleaning agents, sponges and solvents (e.g. alcohol, petrol) is prohibited.
- It is forbidden to use cleaning agents with chlorine, ammonia, paraffin, acetone and bleach to clean the system as well as in its vicinity, as this will result in the risk of corrosion.
- The use of sharp tools (e.g. wire brushes), cleaning agents that cause scratches (e.g. scouring powders, pastes) is prohibited.
- Do not firmly hold or pull the system or its individual components.
- Do not replace damaged components with replacements! Use original spare parts!
- Water must not be allowed to enter the engine.
- Do not deform the feathers.
- After cleaning, connect the power supply (control) and test the operation of the system. Keep an eye on the operation of the system and if unusual behaviour and noises occur, report the problem to the direct supplier.

Repairs

Any abnormal/abnormal operation of the system or abnormal noises from its operation require the user's intervention and a report to a specialised installer. Repairs are carried out by SELT Sp. z o.o. or a specialised installation team on the basis of a separate agreement.

7 COMPLAINTS/TECHNICAL DEFECTS

7.1 CLAIMS (MANUFACTURER'S WARRANTY)

Only the person who purchased the product from the manufacturer can make a complaint about the product.

The conditions and the manner in which complaints are dealt with are set out in the General Terms and Conditions of Guarantee and the General Terms and Conditions of Sale.

The General Terms and Conditions of Guarantee and the General Terms and Conditions of Sale are available at:

selt.com

The Customer shall submit a complaint on the Complaint Form available on the manufacturer's B2B Platform. The complaint notification should be complete and full.

A claim submitted otherwise than via the B2B Platform, incomplete or incomplete, including without an invoice, order or contract number, will not be processed.

7.2 TECHNICAL DEFECTS

In the event of system defects, you should:

- if possible, open the moving roof and put the unit out of service,
- immediately report the defect of the product to the competent specialized assembly team.

8 DISMANTLING / DISPOSAL / DECOMMISSIONING OF THE PRODUCT

Improper disassembly of the system can cause serious injury and damage to the system.
The dismantling of the system should be carried out by a suitably specialised installation team or a person with appropriate health and safety training and recovery expertise.

a) Disposal of waste electrical and electronic equipment

At the end of the life of the product, it is necessary to dismantle it and segregate the individual materials and components in accordance with the Decree of the Minister of Climate of 2 January 2020 on the waste catalogue in order to dispose of it.
Important information on disposal:

According to the provisions of the Act of 11 September 2015 on waste electrical or electronic equipment, it is prohibited to place together with other waste used equipment marked with the symbol of a crossed-out municipal waste container. A user wishing to dispose of electronic or electrical equipment is obliged to take it to a waste equipment collection point.
These statutory obligations have been introduced in order to limit the amount of waste produced from waste electrical and electronic equipment and to ensure an appropriate level of collection, recovery and recycling. The equipment does not contain hazardous components that have a particularly negative impact on the environment and human health.

Lp.	Subject	European legal basis	Polish Legal Basis
1	Waste electrical and electronic equipment	Directive 2012/19 EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE)	Act of 11 September 2015 on waste electrical and electronic equipment (Journal of Laws 2022, item 1622, as amended).
2	Waste catalogue	Commission Regulation (EC) No 574/2004 of 23 February 2004 amending Annexes I and III to Regulation (EC) No 2150/2002 of the European Parliament and of the Council on waste statistics	Regulation of the Minister of Climate of 2 January 2020 on the waste catalogue (Journal of Laws 2020, item 10)

b) Disposal of used batteries

In accordance with the provisions of the Batteries and Accumulators Act of 24 April 2009, the **end user** is obliged to hand over used portable batteries that are no longer a source of energy to a waste battery **collector** or collection point. It is prohibited to place used batteries together with other waste in the same container.

In order to prevent contamination of the environment and the possible risk to human and animal health, the used battery should be disposed of in a suitable container at designated collection points.

Lp.	Subject	European legal basis	Polish Legal Basis
1	Used batteries and accumulators	Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91 / 157 / EEC	Act of 24 April 2009 on batteries and accumulators (consolidated text Dz. U. of 2022, item 1113)

9 CE LABELLING AND MARKING OF THE PRODUCT

9.1 CE CONFORMITY OF THE PRODUCT

The safe construction of the SB400PRO R Pergola is made to comply with EN 13659:2015.
TO MAINTAIN THIS CONDITION AND TO ENSURE SAFE USE AND MAINTENANCE OF THE SYSTEM, THE INSTALLATION INSTRUCTIONS AND THE OPERATION AND SAFETY INSTRUCTIONS MUST BE FOLLOWED.

9.2 INFORMATION ACCOMPANYING THE CE MARKING

a) labelling on the product:

b) labelling on accompanying documents

CE
SELT Sp. z o. o. **Opole, 23A Wschodnia St.** **POLAND** **23**
External louvre pergola **Pergola SB400PRO** **24V/DC** **Power 35 W** **23 / DZ / 2023**
EN 13659 **Sun visor** **for external use.** **Wind load resistance: class 6** **TWO 158 / S / 2017**

10 EXCLUSIONS FROM LIABILITY

The General Terms and Conditions of Guarantee are available at www.selt.com. If you do not have access to the SELT Sp. z o.o. website, the warranty conditions can be obtained from your SELT Sp. z o.o. sales representative.

10.1 EXCLUSIONS FROM LIABILITY

SELT Sp. z o.o. is not liable and does not discharge any warranty or guarantee in the event of:

- Damage caused by transport other than SELT.
- Damage caused by storage, installation, use of the product and maintenance not in accordance with the technical and operating documents, the instructions for use or the manufacturer's recommendations, unless these activities were carried out by the manufacturer.
- Damage resulting from the alteration of the system, unless the alteration was carried out by the manufacturer, on his instructions or with his written consent.
- Secondary damage resulting from the use of the appliance despite the original defect being noticed, unless the manufacturer has been informed and has recommended further use. The assessment of the causes of the damage is left to the reasonable discretion of the manufacturer. Repair or replacement of the device due to the damage referred to in this section may be carried out by the manufacturer against payment.
- Defects due to age and normal wear and tear of product parts.
- Mechanical and electrical damage caused by the user.
- Damage caused by incorrect installation of the product, carried out by a company other than the manufacturer.
- Use of anchoring elements that are too weak or attachment to a substrate (substructure) with insufficient bearing capacity (parameters).
- Damage caused by spontaneous repair.
- Damage caused by use of the system in inappropriate weather conditions (outside the scope of the instructions).
- Damage caused by abnormal weather conditions (lightning, storm, hail, water, fire).
- Damage resulting from accidents and unexpected events.
- Characteristic operating noises of the system, produced when the pens rotate (this is a product feature).
- Leaks resulting from incomplete closure of moving parts or heavy rainfall.
- Limitation of the degree of waterproofing due to location, finish, installation and sealing as well as extreme weather conditions having a major impact on the waterproofing of the product.
- Leaks or leaks between the gutters and the sub-structure, as the sealing of the gutter penetrations is carried out by the customer.
- Water formed from condensation that may appear on the lower surface of the feathers and the lower surface of the structure.
- The formation of water droplets on the beams or the feathers, unless this is due to a defect in the product, provided that the installer is consulted to assess whether this is due to an installation or product defect.
- Damage resulting from inadequate cleaning with unsuitable tools, corrosive or abrasive substances.
- Atmospheric and phytosanitary contamination and fouling caused by animals.
- Soiling of the paintwork in urban environments exposed to pollution (smog, smoke, acid rain, dust).
- Damage caused by the influence of other products, objects or suspended accessories not foreseen by SELT.
- Deformation and damage to the structure, in particular the feathers, caused by the load exerted by the user (standing, moving or hanging on the product).
- Colour variations in parts that may occur during the production process.
- Discolouration of components intensively exposed to the weather.
- Corrosion of components operated in an environment with high sea salt content in the air.
- Possible cracks in the glazing resulting from mechanical damage due to incorrect installation of the system or caused by uneven heating due to the location of the system.
- Variations in the closing angle of the movable roof feathers, which can be around 2°, and are a natural feature of the system due to manufacturing and technological tolerances of the components.
- Damage caused by commissioning in frost conditions and other natural factors.
- Damage caused by snow accumulation on the feathers above the permissible values and with uneven distribution of snow gusts - in case of snowfall, the roof should be in the snow position.
- Damage caused by the use of equipment and flooring not intended for outdoor use under the product.
- Damage resulting from activating the blade rotation mechanism in winds above wind class 3 (49 km/h) and from leaving the blades open in winds above this class.

- Deflections of the construction beams, not exceeding the values specified in EN 1090-1 and Eurocode 9, are a natural feature of the system.
- Damage or deformation caused by failure to close roof feathers above wind speeds of >49 km/h
- Possible stagnation and outflow of water remaining in the feather gutters (including temporary dampness/wetting of the area under the pergola as a result of these outflows).
- For pergolas with feather lengths of more than 3 m, light reflections and clearances at the junction of adjacent feathers may occur due to technological standards.

Selt is also not responsible for:

- A product in which the CE sticker has been removed or is illegible,
- A product in which the pictograms indicating particularly important hazard information and safetyinformationremoved,
- Misuse of the product or not in accordance with its intended use,
- Damage caused by fluctuations in the mains voltage if they exceed 5% or by faulty control,
- To prevent overheating of the product, heat sources such as grills, open fires must not be located within the system,
- SELT Sp. z o.o. also assumes no responsibility for any incidents resulting from non-compliance with this documentation or for the consequences of incidents which the installer, investor or specialised installation team should have taken into account when carrying out the investment or work.

Notwithstanding the above, the scope of responsibility of SELT Sp. z o.o. is limited and results from the contract concluded with the purchaser of the product.

ANNEX 1 (SOMFY PERGOLA TILT 0 MOTOR OPERATING INSTRUCTIONS)