



EN

Monoflap - ventilation

Mounting instructions

Art.N° 59675


Hello daylight!

Safety

Take the necessary and required safety precautions, such as safety nets and lifelines when installing from the outside, safety goggles, gloves, hard hat, etc.
Do not step on the glass.



Falling from height

- When using ladders to go on the roof:
 - Ladder in good condition?
 - Set up correctly at an angle of 75°?
 - Secured below and on top against moving?
 - Don't take heavy material with you on the ladder (3-point contact rule)! If possible, use a crane to lift the material.
- Do not lift material over the roof edge; use a crane to put the material on the roof.
- Roof zone: make sure the part of the roof where the skylight/barrel vault will be installed is safe enough, e.g. secure the edge (support system in the roof gutter that supports against the outer wall of the building, with suitable A B C categorie depending on the roof pitch) or use a scaffold so no one can fall off the roof. If the roof is not safe enough, always use a harness with lifeline (adapted to the fall height), attached to a suitable attachment point.
- Make sure the roof is stable and does not have dangerous openings or insufficient secure parts (e.g. corrugated sheets, ...). Take the necessary measures if this is not the case: strengthen, use suitable safety nets below the danger zones, ...
- Before making the roof opening for the skylight/barrel vault: make sure there are safety nets conform to the current legislation. The nets must be attached firmly and sufficiently to the building.
- When using an aerial work platform: always wear and secure your harness (mandatory)! Leaving the cage is forbidden.
- Never walk backwards on a roof, always walk forwards.
- Make sure there's enough light in the working zone.



Low-hanging obstacles and falling loads



- Forbidden to walk under or within a radius of 1 m of a hanging or lifted load.
- Demarcate the danger zone below the skylight/barrel vault, in the building as well as on the outside near the outer walls (in case material slides off the roof). If the zone is demarcated, people cannot be hit by any falling loads. It's prohibited to enter these danger zones during construction.

Crushing hazard



- All working tools are in good condition, provided with a valid CE label and all necessary safety regulations. These cannot be removed.
- People who use these working tools are educated for this purpose. Protections are always present on all working tools. They are in good condition and need to be set correctly.

Tripping/falling



- Safety is key and it begins with order and tidiness. Clean everything immediately, leave nothing lying around.
- Trash needs to be sorted.
- Be cautious with electric cables (danger of tripping/falling). Never walk backwards!
- Make sure there's enough light in the working zone.



Sharp objects

- Make sure your fingers/hands are not pinched and watch out for cuts while handling skylights or barrel vaults.
- Be careful where you put your hands during the installation.
- Wearing cut-resistant gloves is mandatory.



Ergonomics

- Always lift loads correctly: bend your knees, move your feet instead of forcing your spine, lift as close to your body as possible.
- Parts of more than 25 kg must be lifted with at least 2 persons.



Personal protective equipment



- Work clothes, safety shoes and helmet are mandatory for everyone.



- Lifeline and harness are mandatory if the edge is not secured enough or if there are no safety nets below the roof opening. They are also necessary when using an aerial working platform.



- Use gloves when handling skylight or barrel vault parts.



- BSafety glasses and hearing protection are mandatory when using saws / grinders.

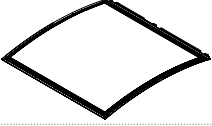
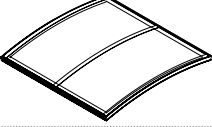
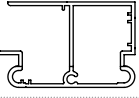


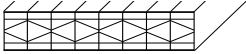
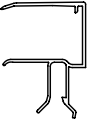






Always perform a Last Minute Risk Analysis!

If in doubt: STOP! Do not take unnecessary risks. Ask your supervisor if needed.

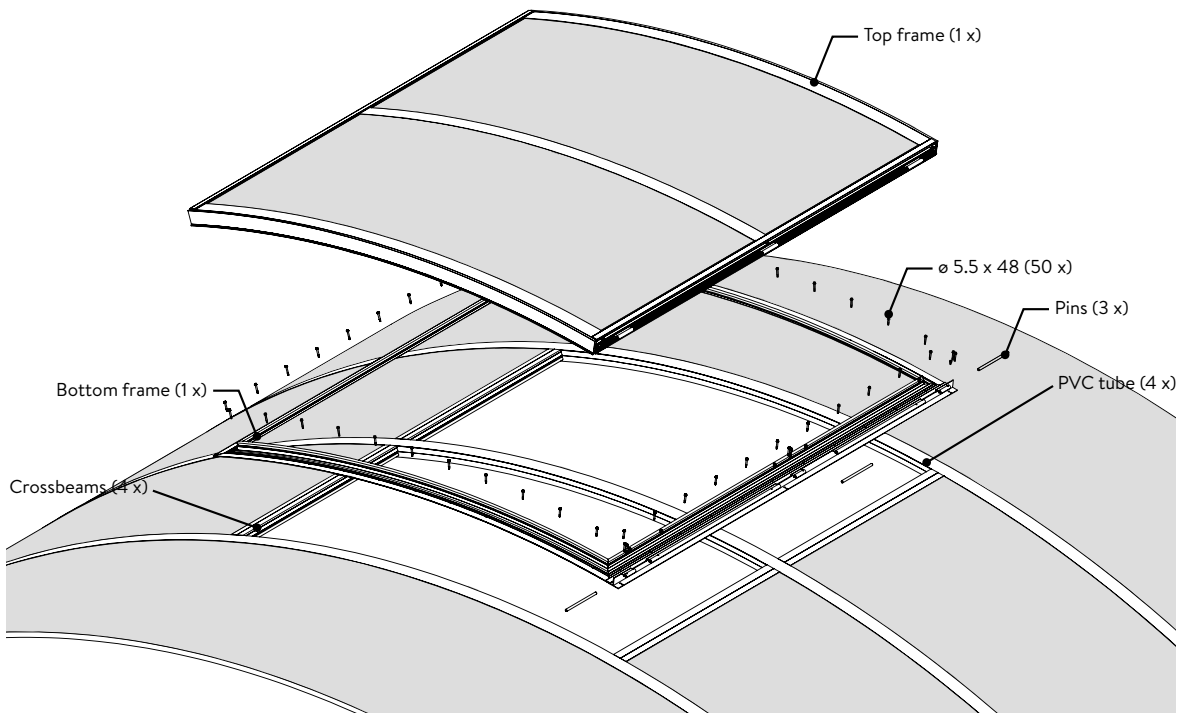
Table of contents

SAFETY	p. 2
TABLE OF CONTENTS	p. 4
PARTS LIST	p. 5
EXPLODED VIEW	p. 6
PRIOR INSPECTION	p. 6
SQUARENESS BARREL VAULT	p. 6
SQUARENESS FRAMES	p. 7
REQUIRED TOOLS	p. 7
ASSEMBLY SEQUENCE FLAP	p. 8
BARREL VAULT	p. 8
CURVED BARREL VAULT PROFILES	p. 8
CROSSBEAMS	p. 8
ARCH STABILIZERS & SHEETS	p. 10
SHEETS BARREL VAULT	p. 10
FINISH BARREL VAULT	p. 10
BOTTOM FRAME	p. 11
TOP FRAME	p. 12
HINGE PINS & SCREWS	p. 13
ASSEMBLY SEQUENCE MOTOR	p. 14
SUPPORT BEAM	p. 14
MOTOR	p. 15
ATTACH FLAP TO MOTOR	p. 15
WIRING DIAGRAM	p. 15
MAINTENANCE	p. 17
SNOW AND WIND LOAD	p. 17
SAFETY AND WARNINGS	p. 17

Parts list

PART	QUANTITY	REMARK
FLAP		
	1	BOTTOM FRAME
	1	TOP FRAME
	4	CROSSBEAMS to mount between the curved profiles
		SELF-TAPPING SCREWS Ø 5,5 X 38 MM
	6	To fix the hinge on the curved PROFILES
	3	HINGE PINS Ø 10 MM X 195 MM - stainless steel - to connect the bottom and top frame
	6	SCREWS Ø 4,8 X 16 - stainless steel - for blocking the hinge pins
	4	PVC TUBE WHITE 2130 MM 25 MM X 20 MM replacement for the PVC sheets
	4	BOLTS M6 X 70 MM to mount the crossbeams
	*	PC SHEETS included in barrel vault delivery
	*	CLOSURE PROFILE included in barrel vault delivery
	*	BOLTS M8 X 60 MM included in barrel vault delivery
	*	ARCH STABILIZER included in barrel vault delivery
	*	COVER PLATE included in barrel vault delivery
MOTOR		
	1	VENTILATION MOTOR
	1	SUPPORT BEAM WITH BRACKET
	6	SELF-TAPPING SCREWS Ø 5,3 X 38 MM to mount the support beam onto the crossbeams

Exploded view Monoflap

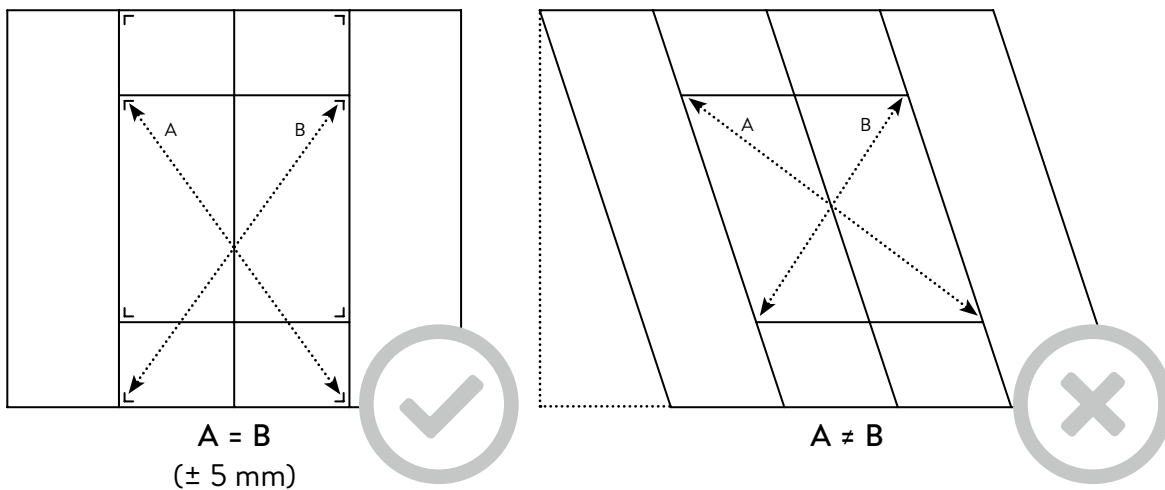


Prior inspection

- **Squareness barrel vault**

Before you mount the single flap, check if the curbs are parallel and if the curved profiles of the barrel vault are mounted perpendicular to the curbs. If the barrel vault is not installed according to the mounting instructions of the barrel vault, it is possible that the single flap cannot be mounted.

It is very important that the difference between the diagonals is not more than 5 mm. Otherwise, the top frame will not fit on top of the bottom frame.



- **Squareness frames**

Before installing the frames, check if the difference between the diagonals is less than 5 mm. Especially the squareness of the bottom frame.

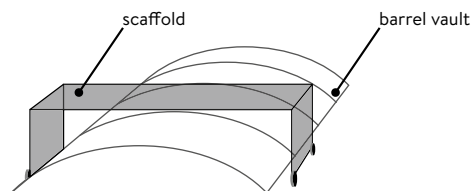
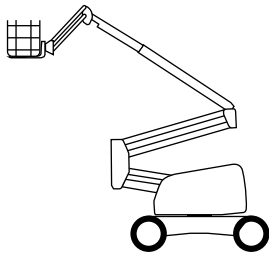
- **Safety nets**

The roof opening must be secured completely with safety nets before starting the installation of barrel vault and flap.

Required tools

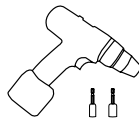
- **Aerial work platform**

We advise to use a small one-man aerial work platform as the other installer(s) will be needed on the roof or scaffold.

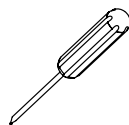


- **Work tools**

- cordless drill with bits 8 and 10



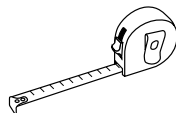
- screwdriver with flat head



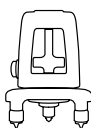
- hammer



- meter



- laser
(or other measuring equipment)



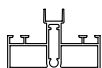
Assembly sequence flap

- **Barrel vault**

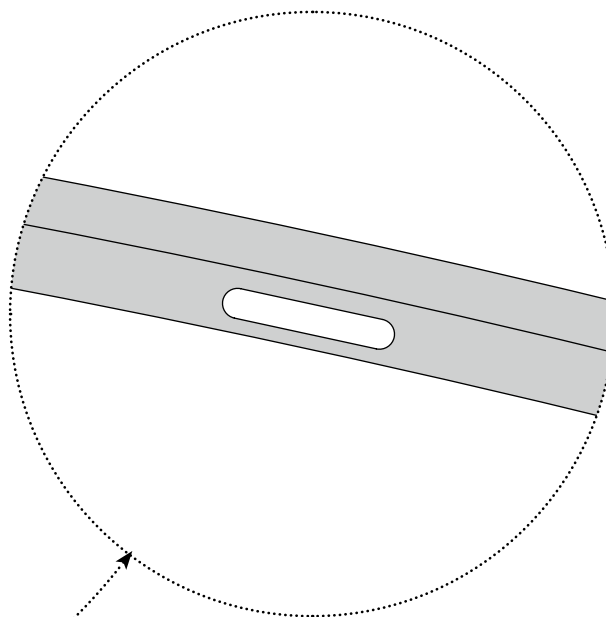
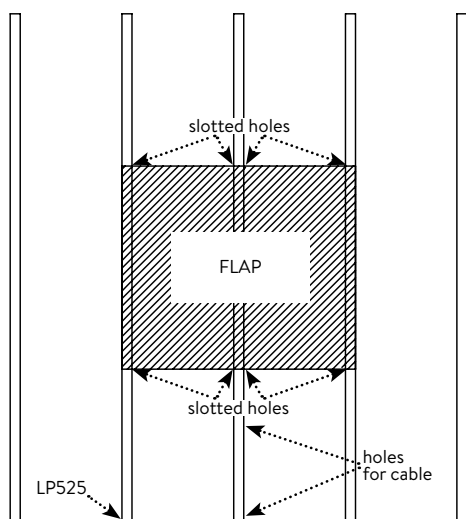
Mount the barrel vault until lower curved profiles (LP525) are placed according to the installation manual of the fixed barrel vault.



- **Curved barrel vault profiles (3x)**



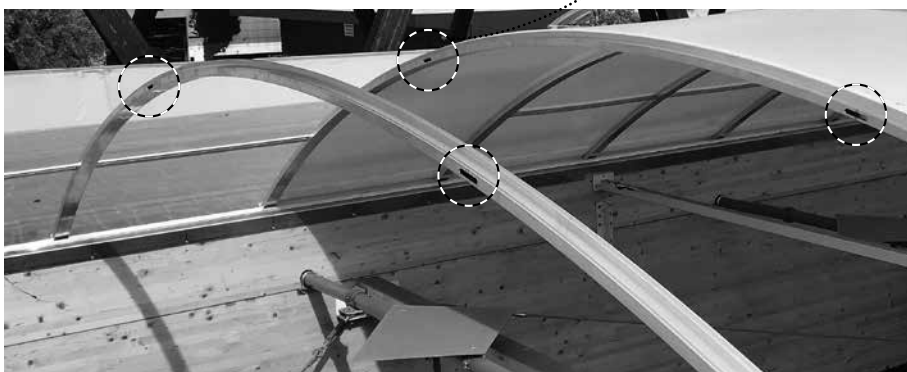
Place the curved profiles LP525 with slotted holes according to the picture below.



- **Crossbeams (4x)**



The slotted holes in the profiles of the barrel vault.



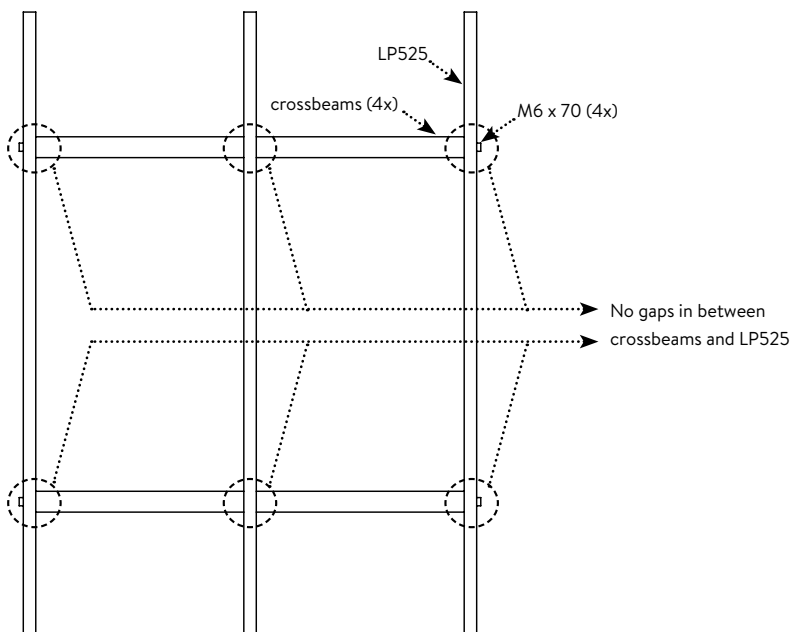
Position the crossbeams in the slotted holes.



Fix the 4 crossbeams with 4 M6 x 70 mm bolts.



Fix without gaps between the crossbeams and LP525.



- **Arch stabilizers (GDGL) + PC sheets (4x & 4x)** 

Place the arch stabilizers in position. Remove protective films from bottom and top of the sheets. Slide the PC sheet in the crossbeam below the single flap.



Attach the sheet with the closure profile (LP025) on the lateral profile (LP625 or LP125).



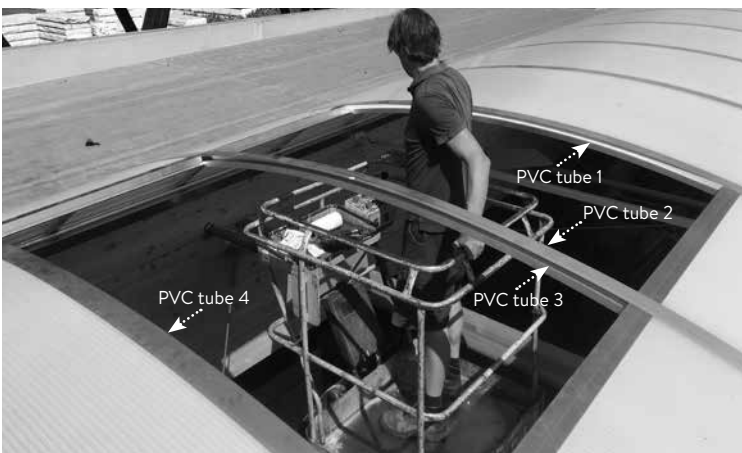
- **PC sheets of the barrel vault**

Mount all the PC sheets of the barrel vault before continuing with the flap.

After installation of the fixed parts of the barrel vault, the safety nets can be partly removed in order to make it possible to install the opening system with an aerial work platform. If the roof opening is not completely secured (anymore) by safety nets, lifelines for all workers on the roof are mandatory!

- **Finish barrel vault**

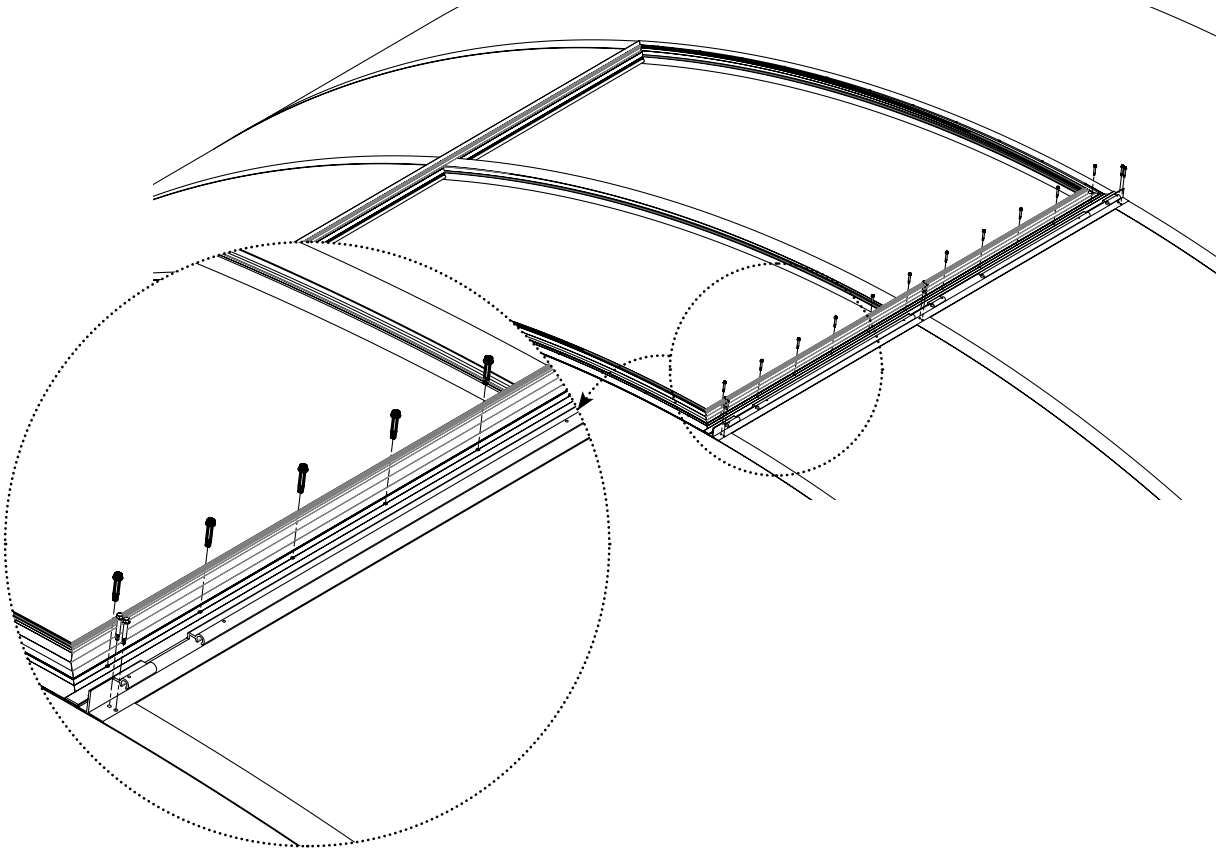
Position the 3 upper curved profiles from the opening system in the same way as the other upper curved profiles (see mounting instructions barrel vault), but do not tighten the M8 bolts yet. First, position the 4 PVC tubes between the upper and lower profiles, then tighten the M8 bolts.



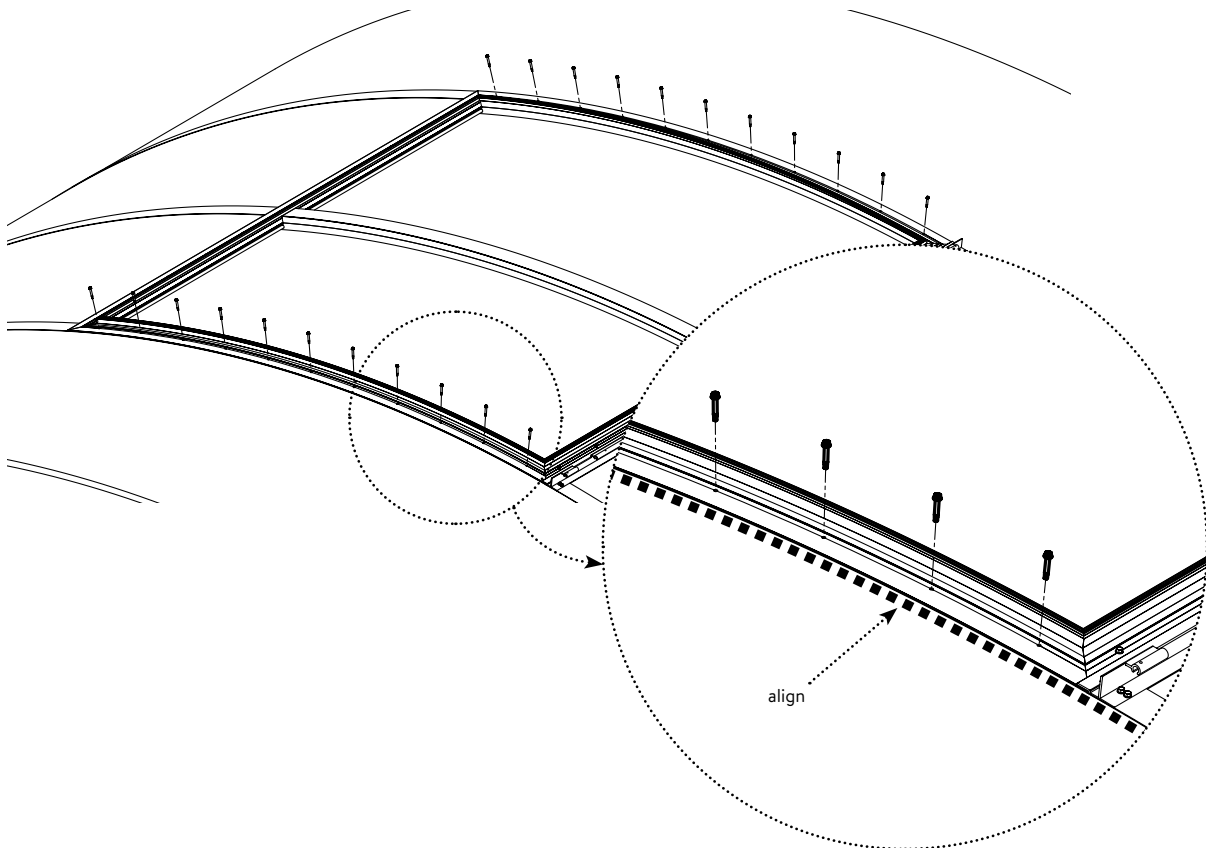
- **Bottom frame (1x)**

Position the frame so that you can see the screw lines through the pre-drilled holes.

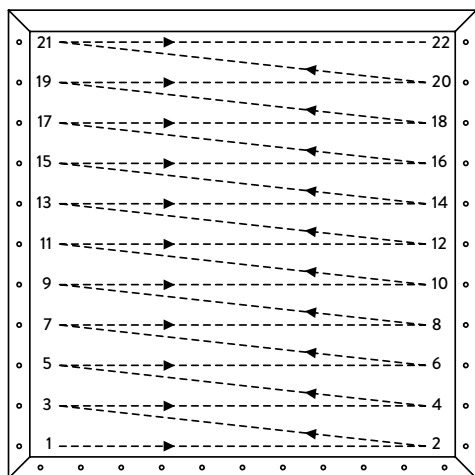
Make sure the opening where the bottom frame will be mounted has perfectly straight corners (see p.4 – squareness barrel vault). Screw all the 11 + 6 screws on the hinge side in the pre-drilled holes.



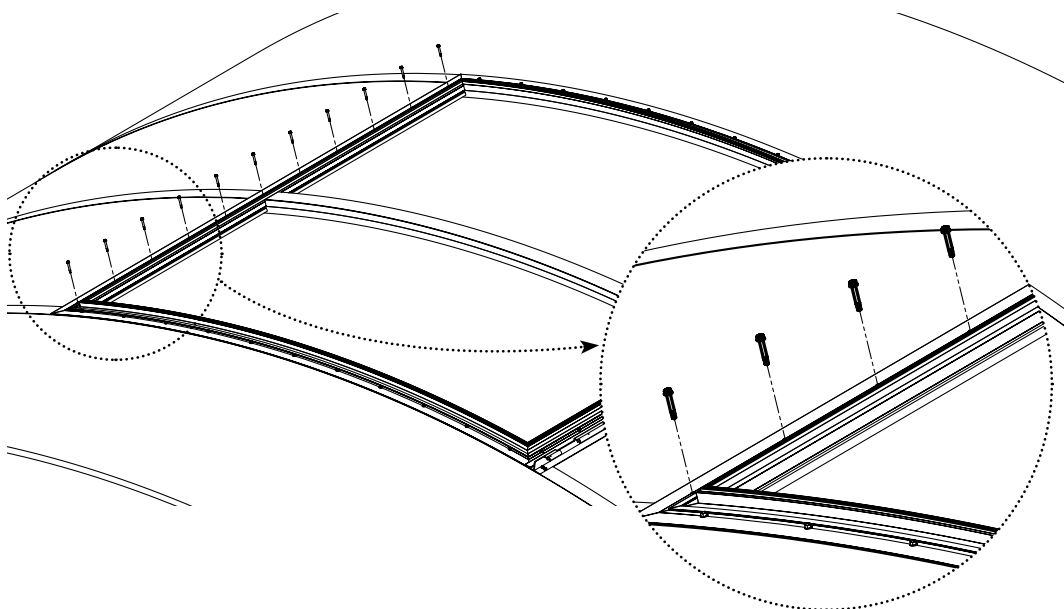
Fix the sides of the frame. Start at the hinge side. **Align** the frame with the upper curved profile.



Fix the screws in the following order:

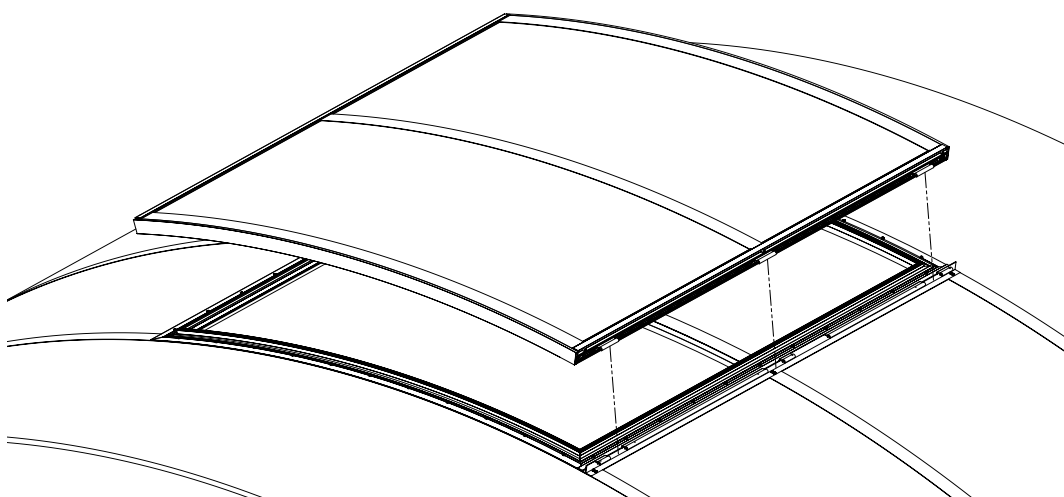


Fix the last side.



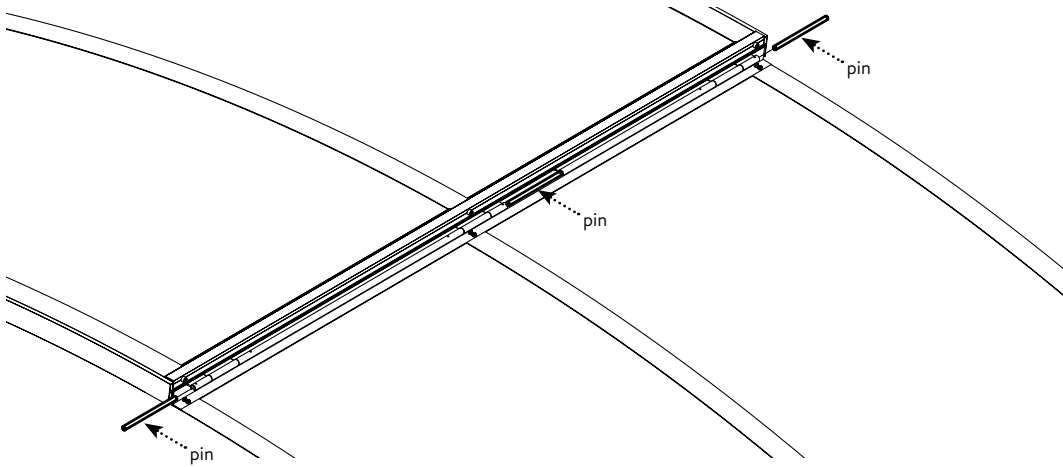
• **Top frame (1x)**

Place the top frame on top of the bottom frame and position it so the hinges of the 2 frames fit into each other.

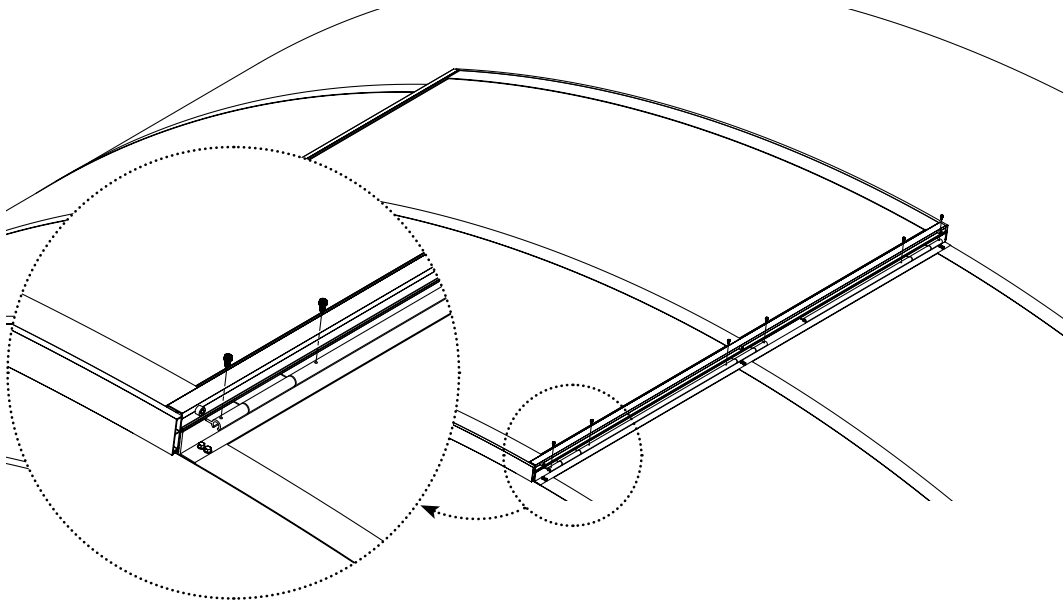


- **Hinge pins and screws (3x & 6x)**

Push the 3 pins in the hinge and shift them between the 2 pre-drilled holes.



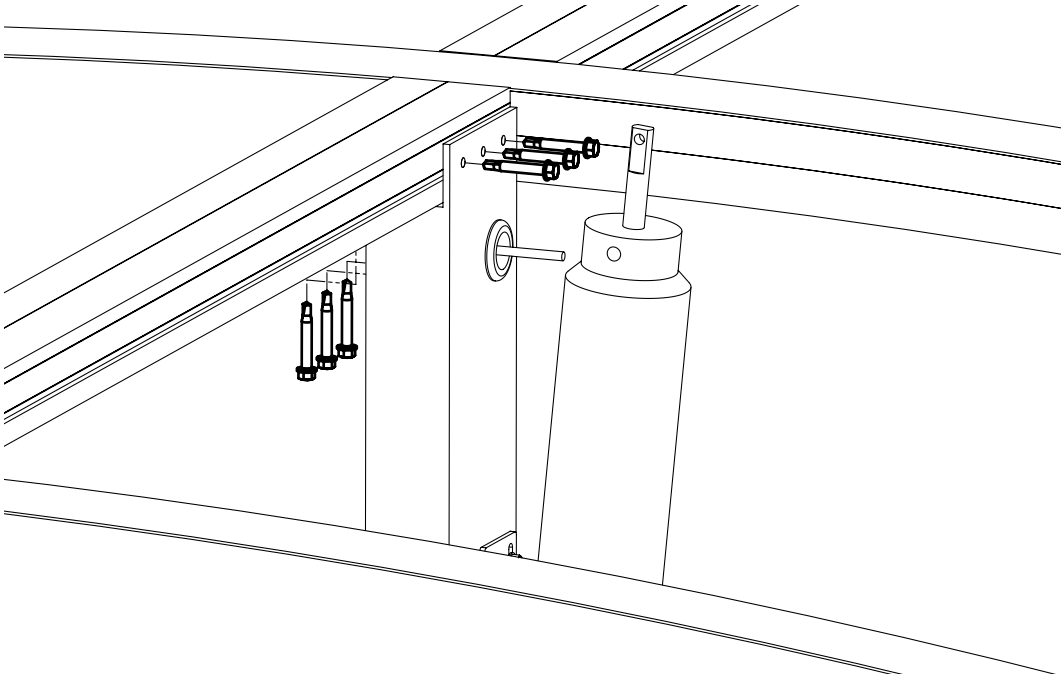
Mount the 2 screws on each side to block the pins (3x).



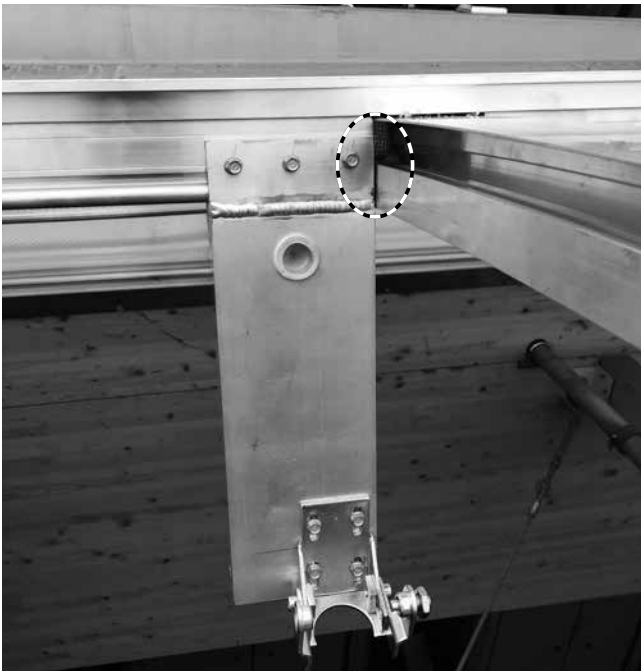
Assembly sequence motor

- **Support beam**

Mount the support beam onto the left crossbeam with 6 screws in the screw lines.



Make sure there is no gap between the curved profile and the support beam with bracket.



- **Motor**

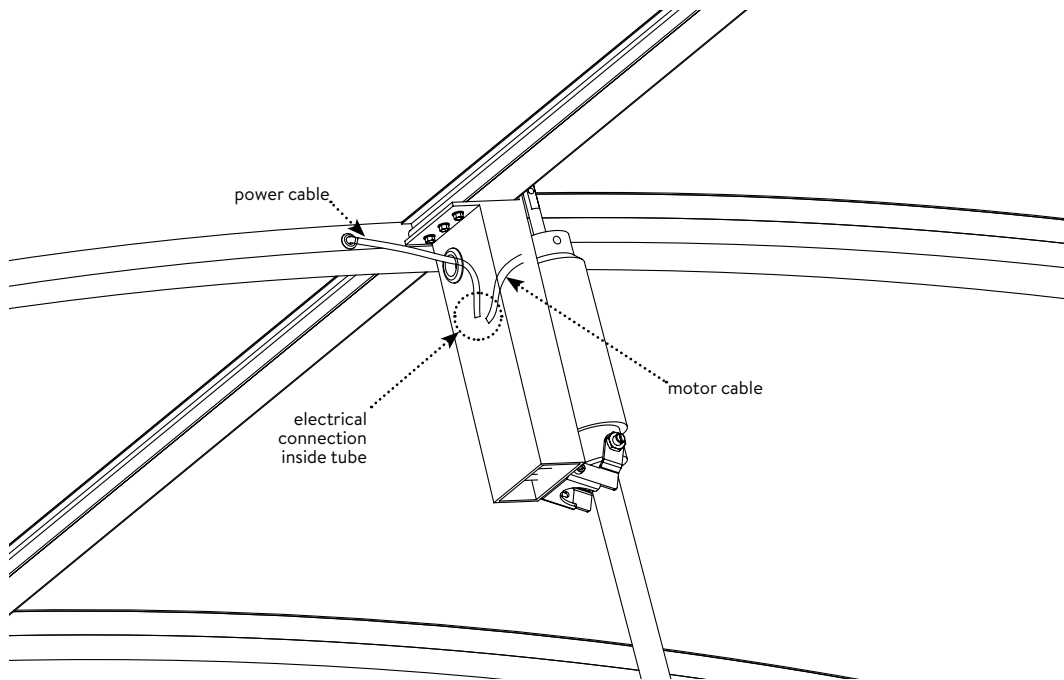
Secure the motor so it can rotate on the bracket.



Push the motor cable in the tube.



Push the power cable on the other side in the tube and make the electronic connection inside the tube in a junction box (not delivered) or use another connection method.



- **Attach single flap to motor**

Attach the motor eye-bolt to the frame. The height of the rod of the motor should be correct. When you close the single flap, there is no gap between the frames and the sealings are compressed. If there is a gap, you can modify the rod of the eye bolt.



- **Wiring diagram**

Make the electrical connection according to the wiring diagram. For more details, check the wiring diagram “E_AS_Wiring_diagram_Monoflap_ventilation_230V.pdf” on our website www.skylux.be.

Maintenance

The owner of the building must schedule an annual maintenance on the Cintralux single flap and the fixed parts of the barrel vault. The maintenance should include at least the cleaning of the sheets with water and light neutral soap. All attachments must be inspected and loose or damaged parts of the Cintralux must immediately be fixed or replaced by original parts. Clean the condensation drain holes and the inside of the base profile at least once a year.

Snow and wind load

The barrel vaults are resilient to normal wind and snow loads. For specific locations (near the sea or in case of very tall buildings > 12 m), this needs to be examined per case.

Safety and warnings

Warnings:

Installers: installation must be performed by well-trained technicians with sufficient knowledge of and experience in the installation of barrel vault.

Fixing materials: use suitable fixing material depending on the surface and the load. If any doubt, contact the screw supplier or a specialised engineering firm. We supply fixing material that is suitable for most metal or wooden surfaces, but this needs to be checked before starting the installation. Skylux is not responsible for the fixing materials used.

Compatibility: only use polycarbonate-friendly materials. Avoid using silicone, polyurethane foam, detergents, paints, varnishes, timber protectants, lubricants, insecticides, etc. A lead flashing must not come into contact with the multi-walled sheets.

Covering: cover the barrel vault (e.g. heat-deflecting effect) only with a cloth that does not contain softening agents. It is not recommended to cover acrylic or polycarbonate with a coating or paint. In this case, our guarantee will no longer apply. It is in your interest that the manufacturer of the coating or paint provides guarantee on compatibility with acrylic and polycarbonate.

Dust: if there are still certain works to be carried out that entail the release of dust particles (such as grinding, drilling, plaster work, etc.), then the opening under the barrel vault must be hermetically sealed, for example with a PVC film. The dust can accumulate on, in, or between the plastic sheets. The hollow channels of the multi-walled sheets are sealed off with tape. When sawing multi-walled sheets at the project site, all channels must be carefully blown out and sealed off with suitable tape. Before assembly, double check that the channels are properly taped and adjust where necessary. Make sure the tape has not been damaged during assembly. There is no warranty for dust inclusion.

UV side and scratches: always install the multi-walled sheets with the UV protective side facing up. This 'sunny side' is indicated on the protective film. Remove the protective film just before installation to avoid scratches.

Point load: avoid point load on multi-walled sheets as this can cause permanent imprints. Never lean or walk on the multi-walled sheets.

Snow accumulation: do not install barrel vaults in places where snow can slide from a higher structure and fall on the barrel vault.

Original parts: only use original parts and install them according to the mounting instructions.

Skylux reserves the right to modify this product or these instructions without prior notice. Changes to the mounting instructions or to the product carry no right to compensation or exchange of parts. The most recent version of these instructions can be consulted at any time at www.skylux.be.

In case of rain or strong wind, always close the single flap.

Safety during assembly:

Take the necessary and required safety precautions, such as safety nets in the roof opening(s), fall protection, protection of the roof edge, safety shoes, safety goggles, gloves, hard hat, etc.

Safety nets & lifelines:

The roof opening must be secured completely with safety nets before starting the installation of the barrel vault and flap. After installation of the fixed parts of the barrel vault, the safety nets can be partly removed in order to make it possible to install the opening system with an aerial work platform. If the roof opening is not completely secured (anymore) by safety nets, lifelines for all workers on the roof are mandatory!

Every electrical operation must be carried out by an electrically trained installer.

Physical properties multi-walled sheets:

Expansion and contraction sounds: acrylic and polycarbonate sheets are plastic sheets and will expand and contract in case of temperature fluctuations. The profile system allows this expansion and contraction. This might cause some noise.

Condensation: acrylic and polycarbonate sheets are very little permeable to damp, which can cause condensation in the hollow channels of the sheets. This could mostly happen at the beginning of the installation because there is a lot of construction liquid that must evaporate. This is a physical phenomenon and disappears after some time. The condensation has no influence on the characteristics of the plastic sheets or on the guarantee.

Reflection: in some cases, acrylic and polycarbonate sheets can reflect the sunlight to the inside or outside, depending on orientation and pitch.

ONLY USE ORIGINAL PARTS SUPPLIED BY SKYLUX. FAILURE TO USE ORIGINAL PARTS VOIDS THE GUARANTEE.

THESE GUIDELINES ONLY SERVE AS ADVICE AND INFORMATION. INSTALLATION IS CONDUCTED UNDER THE SOLE RESPONSIBILITY OF THE CUSTOMER.

CINTRALUX IS A REGISTERED BRAND OF SKYLUX
SPINNERIJSTRAAT 100 - B-8530 STASEGEM
T +32 (0)56 20 00 00 - F +32 (0)56 21 95 99
INFO@SKYLUX.BE
WWW.SKYLUX.BE

