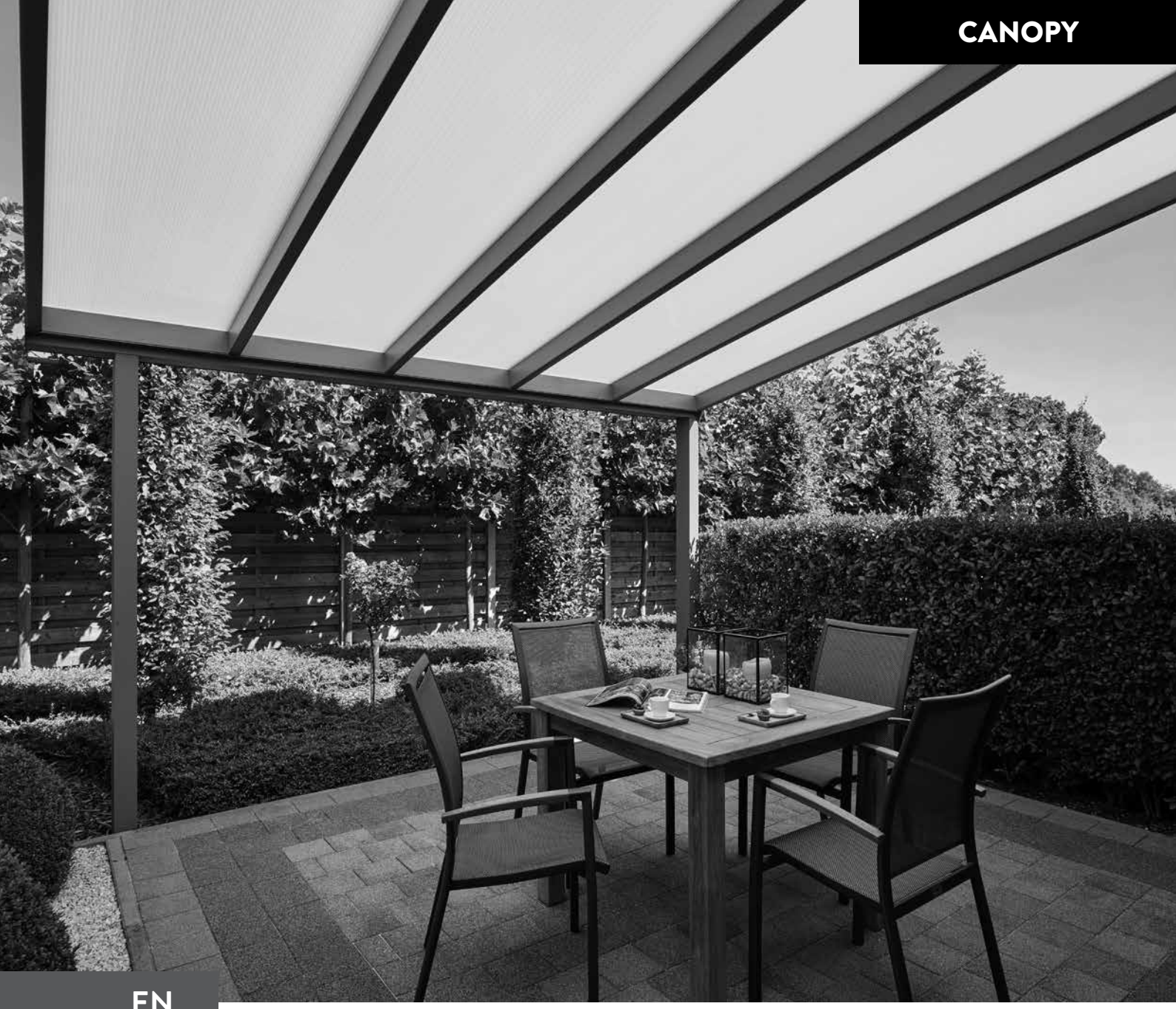
CANOPY



EN

Climalux®

Mounting instructions

Art.N° 36179

SKYLUX®
Hello daylight!

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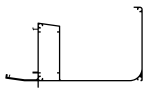
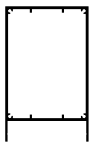
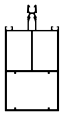
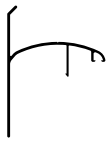
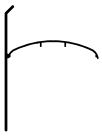
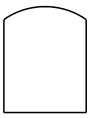
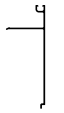
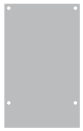
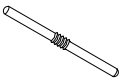
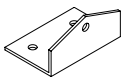
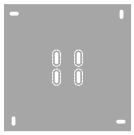
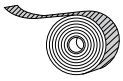
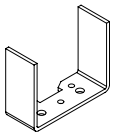
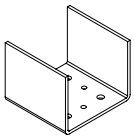
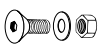
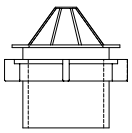
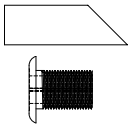
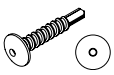
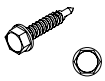
Overview of Climalux profiles and parts

WALL		
	MX	WALL PROFILE
GUTTER		
	GX	GUTTER
	GLX	ORNAMENTAL PROFILE FOR GUTTER
	GIX	CONNECTING PIECE FOR GX
	GDGL	LED PROFILE FOR GDG
	GR	RAISED PROFILE FOR GUTTER GX
	GDX	GUTTER SUPPORT FOR OVERHANG
	GDCX	CLIP PROFILE FOR CROSS-BEAM GDX
RAFTERS		
	DX	RAFTER
	L16P	SIDE PROFILE 16 MM
	CL16	CLIP ALU 16 MM

	CLLX	SIDE CLIP 16 MM
	CLSB	BASE SCREWABLE CLIP FROM 7 UP TO 16 MM
	CLST	TOP SCREWABLE CLIP
	CLSL	TOP SCREWABLE SIDECLIP
POSTS		
	PX	POST 110/141 FOR GUTTER GX
	PGDX	POST 110/110 FOR CROSS-BEAM GDX
RUBBERS		
	C1CX	COEXRUBBER FOR WALL TOP WHITE/BLACK COEXRUBBER FOR WALL TOP GREY/BLACK
	C2CX	COEXRUBBER WHITE/BLACK FOR TP-TPG-TPGL COEXRUBBER GREY/BLACK FOR TP-TPG-TPGL
	C3	RUBBER FOR SHEET SPACER GREY
	CY10	RUBBER GREY FOR CL16 AND CLSB
	C8	RUBBER GREY FOR CL16 AND CLSB

Overview of Climalux profiles and parts

ACCESSORIES					
	AX	SHEET SPACER		GDSX	END PIECE FOR CROSS-BEAM GDX
	U16P	REINFORCED PVC END PROFILE 16 MM WHITE		MSX	END PIECE WALL PROFILE FOR MX
	U16A	ALU END PROFILE 16 MM		909	CONNECTING PINS
	U16	PRE DRILLED ALU END PROFILE 16 MM		LGDX	FIXING PROFILE “L” FOR CROSS-BEAM GDX
	L432	L-OBTURATOR PROFILE		PV	BASE-PLATE FOR POST PART 110/50
	BT16	CLOSED SYNTHETIC TAPE FOR 10 AND 16 MM SHEETS WITH GARANTEE		PU	U TOP-BOTTOM FOR POST PX 110/141
	BB16	PERFORATED SYNTHETIC TAPE FOR 16 MM SHEETS WITH GARANTEE		PUX	U TOP-BOTTOM FOR POST PGDX 110/110
	S16X	STOP FOR DX		BMR	STAINL SCREW, NUT AND RING SPRING M8
	GSX	END PIECE GUTTER FOR GX		GC	WATER OUTLET + SWIVEL DIAM 80 MM GREY
	GLSX	END PIECE GUTTER FOR GX + GLX		UGS WUGS	UNIVERSAL OUTLET + OUTLET GUTTER SPOUT
	GRSX	END PIECE GUTTER FOR GX + GR	 TX25	ZSB/G ZSC	STAINL. STEEL SCREW 5,5 x 32 MM TX 25 STAINL. STEEL SCREW 5,5 x 32 MM TX 25 WITH BUTYL SEALING
	LOGO	LOGO CLIMALUX FOR END PIECE GUTTER	 10	6,3 x 25	SELFDRILLING SCREW 6,3 x 25 mm

General installation tips

Please read this manual carefully.
The installation must be carried out by people with sufficient technical knowledge and experience in the area of conservatory installations. The installer must take the required safety measures into account during the installation such as the use of scaffolding and personal protection equipment - safety shoes, helmet (i.e. hard hat), gloves, safety goggles, etc. - to ensure the work is carried out in a safe environment. During installation, please make sure that the necessary precautions have been taken to ensure the stability of the unfinished construction.

Fixing material
The selection of required fixing material is to be made in function of the foundation or the walls. Check whether the foundation and the walls on which the structure is to be anchored have a sufficient load-bearing capacity. The installer is responsible for the assessment of the appropriate fixing materials for the load and foundation on which the structure is to be fixed. Please contact your fixing material supplier or specialised engineering consultants in case of doubts. Skylux cannot be held responsible for the installation or the fixing materials used.

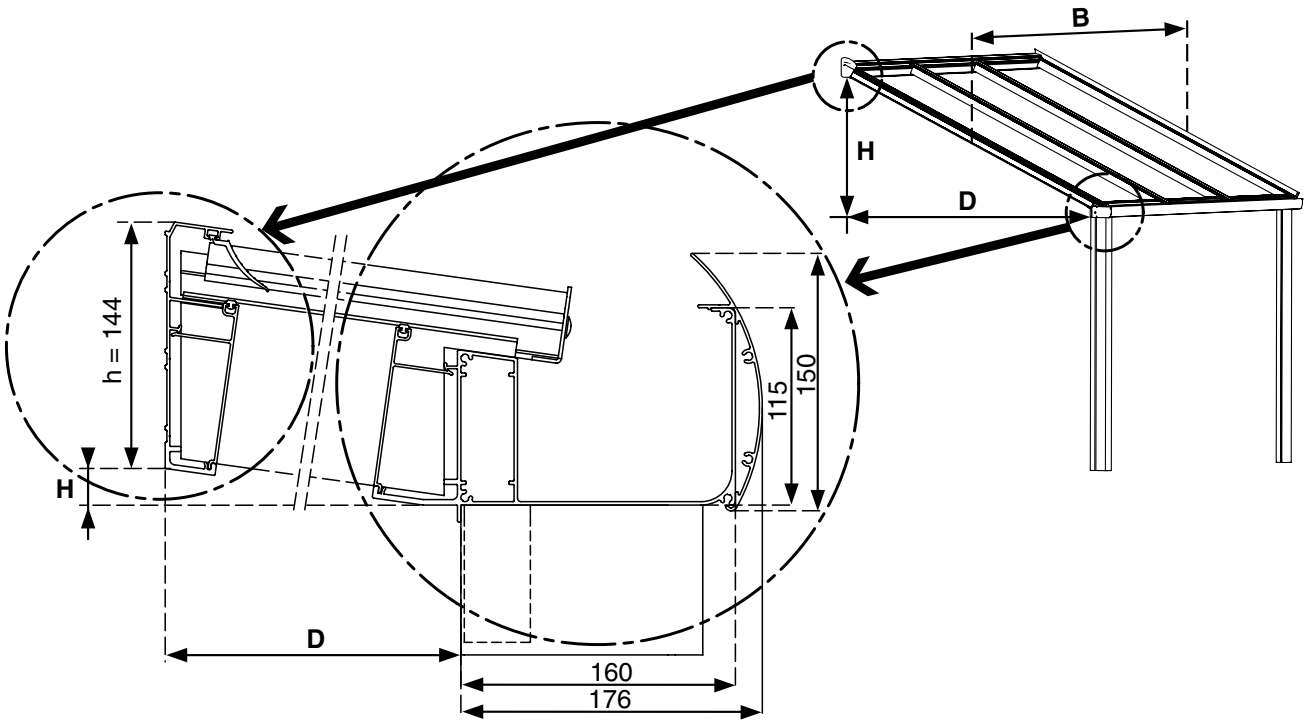
Seal installation
A distinction is made between push-in seals and slide seals.
The seal of a push-in seal is pushed into the profiles. The C2CX, C8 and CY10 seals are push-in seals.
The slide seals C1CX & C3 are slid into the profiles.
The seals C1CX and C2CX are equipped with an anti-stretch wire that prevents the seal from being stretched during installation. This technology ensures that the seal cannot shrink after installation.
Avoid the use of silicone and detergent when installing the seals. Plastic sheets can be damaged by these products. Plastic sheets can result in settlement noise due to temperature fluctuations. This will not affect the guarantee and will not be accepted as a claim.

Terms, conditions and guarantee
The guarantee is void when the installation instructions provided below are not followed. Not following the instructions and/or using other parts may have an adverse effect on the safety and life cycle of the product. Variations are not permitted without written permission of the manufacturer. Our installation instructions manual and film are based on the latest level of our knowledge and technics. We cannot be held responsible for possible incomplete information. Always check if our product is suited for your application. As the manipulation and the mounting of the product are done beyond our control, can Skylux not be held responsible for possible damages. The installer must take the specified span values in relation to the glazing and load (snow and wind) according to the applicable standards into account. The load graphs that you will find in this manual on page 31-33 are only indicative. Contact the manufacturer, architect or engineering consultant for conservatory roofs outside the normal range. The manufacturer reserves the right to change this manual without prior verbal or written notification.
Skylux reserves the right to change this manual without prior notification. Changing the installation requirements or the product will not mean a right to any compensation or exchange of parts.
The latest version of this manual can be consulted by visiting www.skylux.be.

Climafast
The Climafast calculation application is offered by Skylux for free and is at disposal of the professionals. You will receive information on how to log on and download the Excel version of the application upon request. With Climafast, you can determine the price of your Climalux roof. An overview of profiles, lengths, parts, allowed loads, etc, is provided for each project. The aim of this application is to inform the user.
Skylux reserves the right to change the Climafast application without prior notification. The results of the application are indicative and do not give right to any compensation. The latest version of the calculation application can always be downloaded from www.skylux.be.

Measuring your Climalux pitched roof

Measurement
Determine the height difference H.
The height difference H is the difference between the bottom side of the wall profile MX and the bottom surface of the gutter combination. The stop lip for the window is not included in the calculation. The standard roof inclination is 8°. Other inclinations are possible between min 5° and max 10°.



The height h is always 144 mm.

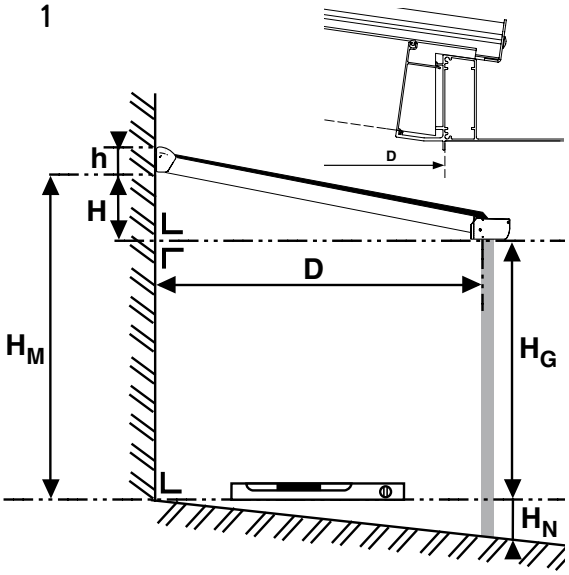
Determine the depth (fig 2, page 7)
Measure horizontally from the wall to the inner side of the support post to determine the roof depth D. The additional depth of gutter GX is 160 mm, or of the gutter with ornamental frame GLX is 176 mm for a Climalux. For a construction with eave, please consult page 22.

Determine the width B (fig 2, page 7)
The width B of the Climalux is the distance between the outer side of the side rafters. If the Climalux is installed between two walls and a gutter with screwed-on gutter end-pieces is used, you can deduct 5 mm per side from width B, as the screws for the gutter end piece require additional width and additional clearance is recommended.

These measurements can be used to calculate all other measurements using the Climafast calculation application, which is available free of charge from Skylux. We strongly recommend the use of the calculation application. All possible exceptions are taken into account. The correct cutting lengths are provided and only correct combinations are suggested. The list of measurements for sizing is always provided with the materials.w

Measuring your Climalux pitched roof

1



The difference in height H and depth D for the veranda.

H_M = The height from the floor and the bottom side of the profile measured at the back of the veranda.

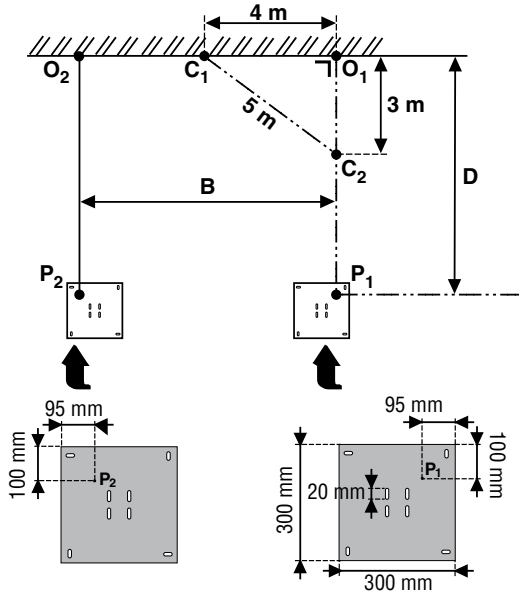
H_N = The slope of your veranda floor.

$H_G + H_N$ = Installation height for the bottom side of gutter GX. This is also the height for the windows or the length of the posts.

$H = H_M - H_G$

h = 144 mm (wall profile height)

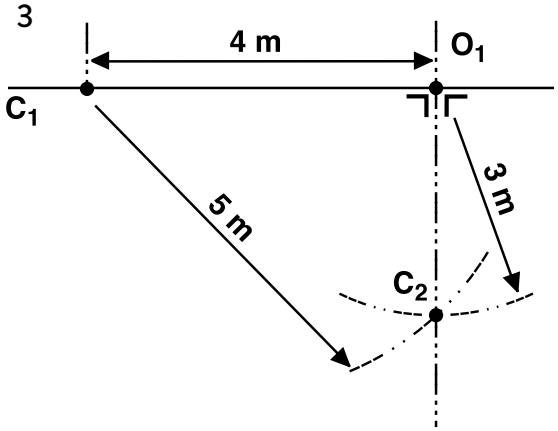
2



Installing the Climalux post PX and PV base plate.

- Determine point O_1.
- Determine O_2. The distance O_1 - O_2 = conservatory width "B".
- Draw a line with chalk using the 3/4/5 rule and determine point P_1. The distance O_1 - P_1 is the depth = D (Refer to item 3 below.)
- Repeat the same calculations for P_2.
- Measure the distance (P_1 - P_2), which must be equal to (O_1 - O_2) as an additional check.
- The base plate can be slid through the slotted holes in order to position the base plate properly.
- The U for the base plate can be moved 20 mm either way to allow proper adjustment.

3



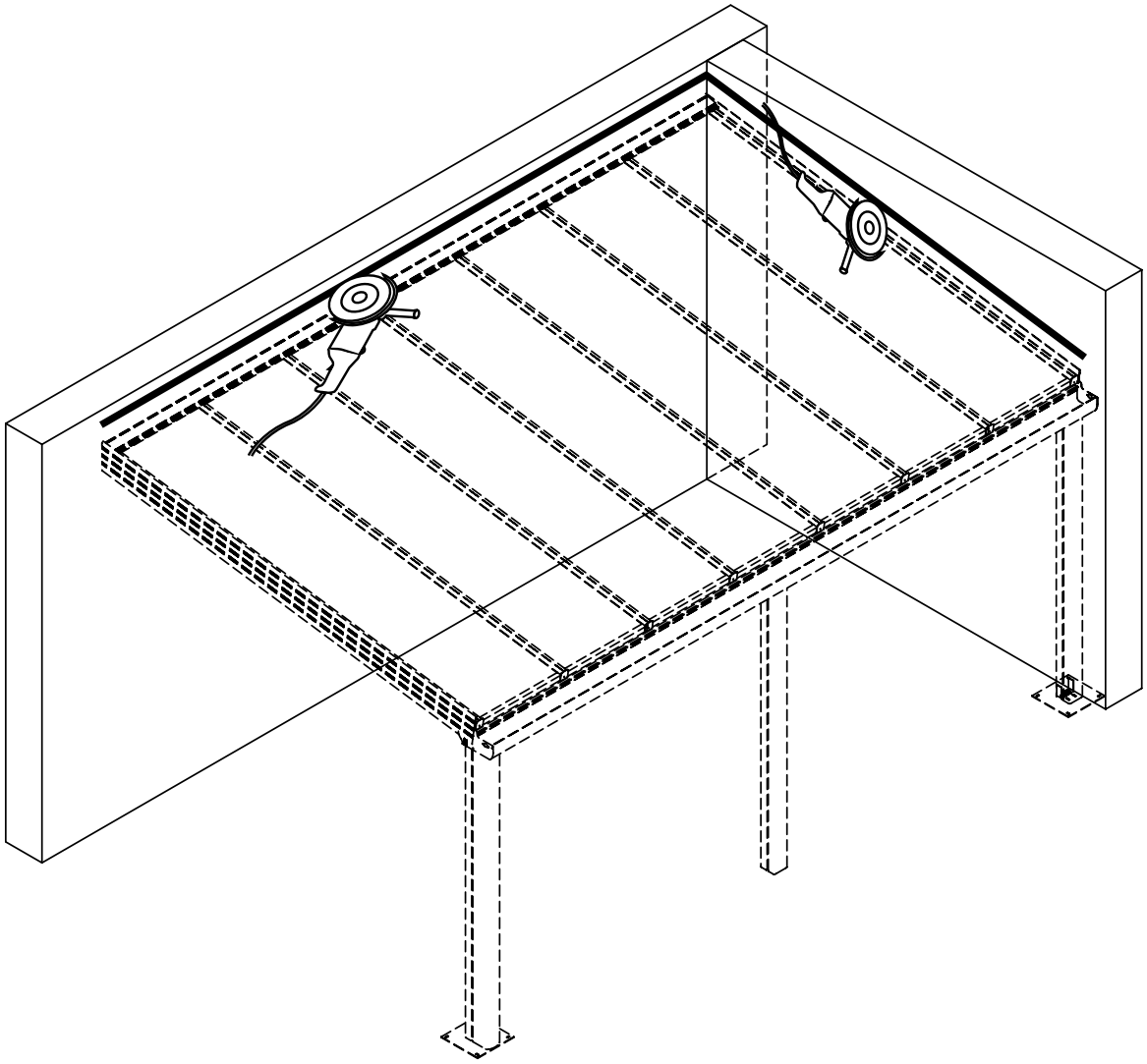
The 3/4/5 rule.

- Determine the auxiliary point C_1 based on O_1 at a distance of 4 metres
- Use a 3 metre string and a piece of chalk to draw a circle from point O_1.
- Use a 5 metre string to draw a circle from point C_1.
- The 2 circles intersect at C_2.
- Line O_1 - C_2 should be at a perfect right angle to your wall (line C_1-O_1).

Preparation

The Climalux roof can be delivered cut-to-size to reduce the installation time.

Walls
Check that the walls, against which the structure is to be installed, are:
- Sufficiently load-bearing to anchor the roof.
- Free of obstacles such as water drains, window sills ...



Install a lead slab to ensure a waterproof junction to the walls. Make a slot in the walls against which the conservatory roof is to be installed. Install a lead slab or zinc flashing.
Height = first joint above Hm + h and max 60 mm above the wall profile.

LED lights (optional)
ClimaLED strips/spots: see p. 34. Please respect in time the specific requirements or modifications during installation.

Floor
Ensure that the foundation can carry the load. Have an architect determine the required foundation. Implement measures to remove rainwater from the roof.

Precautions
Protect the finished profiles against scratches and dents during installation.

General tips and maintenance instructons

The qualitative and technological level of the multiple layer plastic sheet is high. We provide a few important tips for problem-free installation. Please pay special attention to the following: Space for expansion/silicone and wooden protection/seals.

1. CLEARANCE

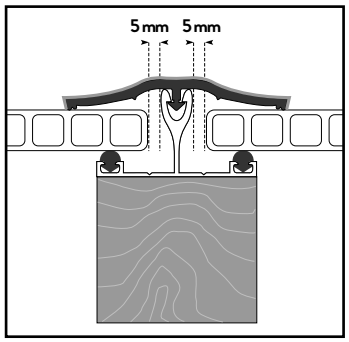
Synthetic sheets can expand or shrink when there are temperature fluctuations. The following tips should be taken into account:

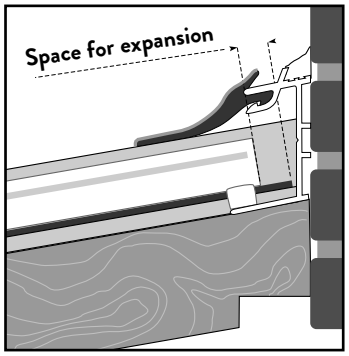
♦ Ensure there is 5 mm clearance lengthwise for each sheet meter and ensure there is 10 mm clearance (5 mm on each side) widthwise, for example, a 3000 mm sheet must have a clearance lengthwise of 1.5 cm.

♦ Never block the sheet lengthwise or widthwise. Always ensure sufficient clearance.

♦ Never stick the sheet using silicone (even when it does not damage synthetic materials). It would prevent the expansion and shrinkage of the sheets.

♦ The sheet is blocked at the bottom end to prevent it from sliding. The clearance must, therefore, be provided at the top.





2. SILICONE, SEALS AND WOOD PROTECTORS

♦ Nearly all silicone products affect the polymethyl methacrylate or polycarbonate sheets. Purchase silicone types that are safe for polymethyl methacrylate or polycarbonate products (guarantee certificate).

♦ The fumes from this putty may never evaporate in the slots of the sheet. The ventilation openings as well as the sides of the end profiles may not be closed off. The silicone should always be allowed to release fumes freely.

♦ Some seals contain softening agents (as used in certain types of rubber, PVC, polyurethane, etc.) that may cause small cracks. Use only approved seals.

♦ Do not use black or dark-coloured seals to prevent heat accumulation.

♦ A lead slab may be placed on the seals but may not rest against the sheets.

♦ Some paints, varnishes and wood protectors affect the polymethyl methacrylate or polycarbonate sheets. Never use lubricants to put the seals into the profiles.

♦ Never spray insecticide directly on to the sheets. Synthetic sheets can be damaged by these products.

3. MAINTENANCE

♦ Clean the sheets annually using lukewarm rainwater. Dissolve a little household soap (neutral) in the water if required (no detergent!!). Never use solvents or abrasive products.

♦ Do not rub dry (may cause scratches).

♦ Simply rinse.

♦ Clean the surfaces/profiles min. 1 a year with cold water and a mild soap. Rinse well with plenty of water.
Never use solvents or abrasives!
A good cleaning is necessary to avoid the profiles from growing dull and dirty by the UV light!

4. INSTALLATION

♦ Observe the safety instructions that apply to work on roofs.

Polycarbonate sheets: Very IMPORTANT! The side which is protected against UV radiation must always be installed facing the exterior or the sky. The "sun side" is indicated on the protection film.

♦ The plastic tape or the provisional aluminium tape will only ensure the sheets are free from dust while being shipped. These should be removed! Adjusted aluminium tape or end profiles must be used.

♦ The load-bearing structure must be strong and stable. (See the regulations that apply to the timber and metal construction industry.) Cross supports may be required depending on the type of sheet used. Only specific maximum lengths may be used without a cross support for each type of sheet taking into account the loads of 500 N/m² or 750 N/m², respectively (see the technical plastic sheets information sheet).

♦ Pergotop/Pergotop-soft sandwich panels are only adapted in combination with Skylux screwable clips.

♦ Heat accumulation: the top side of the load-bearing structure that is turned towards the sheets must be WHITE reflective.

♦ Apply white dispersion paint (diluted in water or paint without solvents) or use preferably aluminium tape. Attention: Let the paint dry after painting the load-bearing structure! Continue with the installation of the sheets after the paint has dried. The synthetic sheets may NEVER be installed directly on to timber structures.

♦ Do not place roof tiles directly on the sheets! Leave a space of at least 10 mm between the sheets and the roof covering.

♦ Use a special weather stripping (seal C6) for sealing the opening between the plate and the gutter beam. Do not seal using sealant or fill with PU foam.

♦ We formally recommend not adding a ceiling under the acrylic sheets (PMMA). Any used sun blinds or other finish under the sheets should be at least 120 mm from the roofing sheet. These may not have insulation properties and should have a reflecting colour. The polycarbonate sheets (PC) do not require any specific precautions.

♦ **WIDTH DISTRIBUTION OF THE SHEETS:**
RECOMMENDED: standard sheet width with an adapter for the 2 outer sheets. This is especially important for the S5P heat-stop sheet.

The closed off sides are one of the factors that determine the sheet strength!

NOT RECOMMENDED:
in equal sections with sized sheet widths. Take the standard sheet width into account. We formally advise against sizing multiple-layer sheets.

5. GLASS

♦ Follow the installation instructions provided by the glass manufacturer when including the installation of glass!

6. DRAINAGE AND CONDENSATION

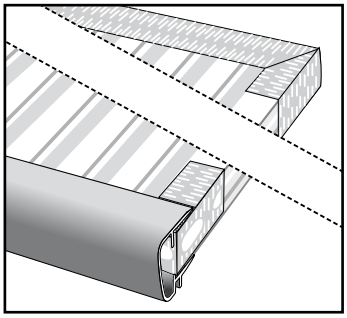
Dust and damp may not enter into the cell structure:

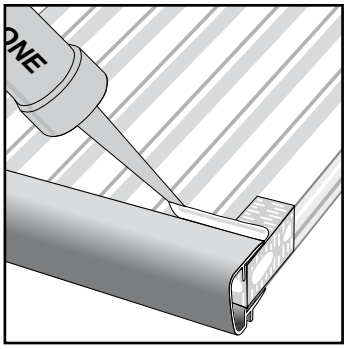
♦ A combination of BT 16/25/32 at the top and BB 16/25/32 with U16/25/32P at the bottom, stops dust of > 45µm from entering the cell structure.

♦ The underside is provided with a perforated aluminium filter tape. To protect the tape, use the U16P/U25P/U32P or a U profile with perforations of Ø 3.5 mm, installed every 20 cm.

♦ Seal the profile with synthetic friendly silicone to prevent water infiltration maximally.

♦ Wet the edge of sheets with no-drop layer and dry it afterwards before taping the sheet.





♦ Make sure that the bottom NEVER stands in water (moss and algae).

♦ Condensation in the canals is not 100% inevitable (physical phenomenon).

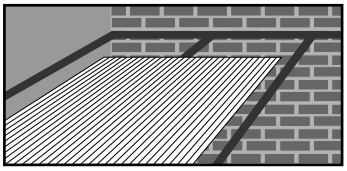
Acrylic and polycarbonate are very less gas- and dampproof. The characteristics of the material and the guarantee are not diminished because of this. An appropriate sealing is recommended.

7. SHEET DIRECTION

♦ Install the sheets with inclination or vertically, never horizontally (unless interior use).

♦ Minimum inclination: 10° (18 cm per meter) or more.

♦ The direction of the sheet canals must always go along with the roof inclination.



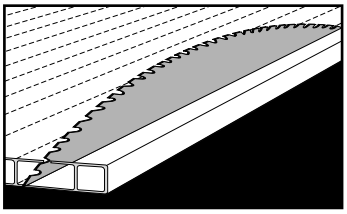
8. REFLECTION

♦ Multi-walled synthetic sheets may reflect the sunlight to the inside or the outside in case of direct sunlight (following the orientation or the inclination). This is a normal situation which does not affect the sheet guarantee.

9. SAWING AND DRILLING

♦ Always use a grease pencil to make notes on the protection film (felt pen is difficult to remove).

♦ To ensure a fest clamping during the sawing, you should always make sure that a raised rib is as near as possible by a sawed edge.

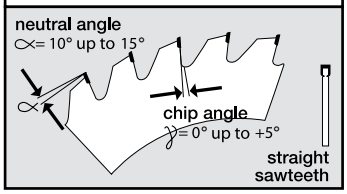


♦ When sawing, use a hard metal saw (widea) with high rotation speed. Saw slowly and by preference with one move. Use new or sharpened saw blades. Make sure the sides are always smooth.

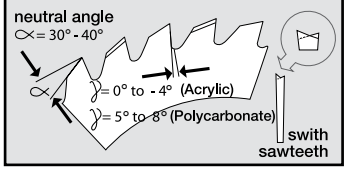
ATTENTION: The basis on which the sheets are sawn, must be stable and vibration-free. The sheets must not move during sawing. The saw blade must slightly reach out of the sheet.

♦ <u>Type of saw blade:</u>

1. hard metal (for ca 50 m/s)



2. HSS (not more than 40 m/s)



♦ Remove all dust and sawing rests from the canals with pure compressed air or a powerful vacuum cleaner.

♦ Only remove the protection film after installation to avoid scratches.

♦ Drilling is strongly advised against. However, if unavoidable, provide with grooves (shrinking and dilatation).

10. PILING

♦ Avoid direct sunlight on piled sheets.

♦ If you pile the sheets outside, cover the sheets with white polyethyl foil. Always keep the synthetic friendly tape as sealing on the front sides of the sheets.

♦ The sheets must not be piled directly on the ground. Use appropriate pallet boards.

11. SUN PROTECTION

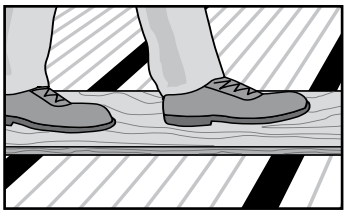
♦ If you install sun protection, you must do this on the upper side of the sheets: e.g. on the outside.

<u>Attention:</u>
Do not put the sun protection directly on the sheet!
You can also buy sunproof sheets (PC: Primalite Clear, Reflex Pearl, Relax - PMMA: S5P Heatstop) or install a Skylux conservatory dome.

12. REMEMBER

♦ Never walk or kneel directly on the sheets. Always use solid timber boards underneath. Make sure these boards are supported by the timber construction.

♦ Multi-walled synthetic sheets with thin walls and a high insulating structure in the sheet, are sensitive to foot, knee and other impressions at the surface. Please take enough precautions during transport and installation. Impressions in the sheet are <u>not</u> covered by the guarantee.



13. SNOW AND SNOW PILE

♦ The multi-walled synthetic sheets resist normal snow load. You can find the maximum snow load on the technical files per sheet type and size. In case of heavy snow fall, we recommend to regularly clear the snow. The conservatory roof must also be protected against snow falling from a higher situated roof.

14. DILATATION NOISES

♦ As we already mentioned several times, synthetic sheets shrink and dilate under the influence of temperature fluctuations. When they move with regard to the roof construction, there can be some creak noises. There is no danger for the sheets if they have been installed according to the installation instructions.

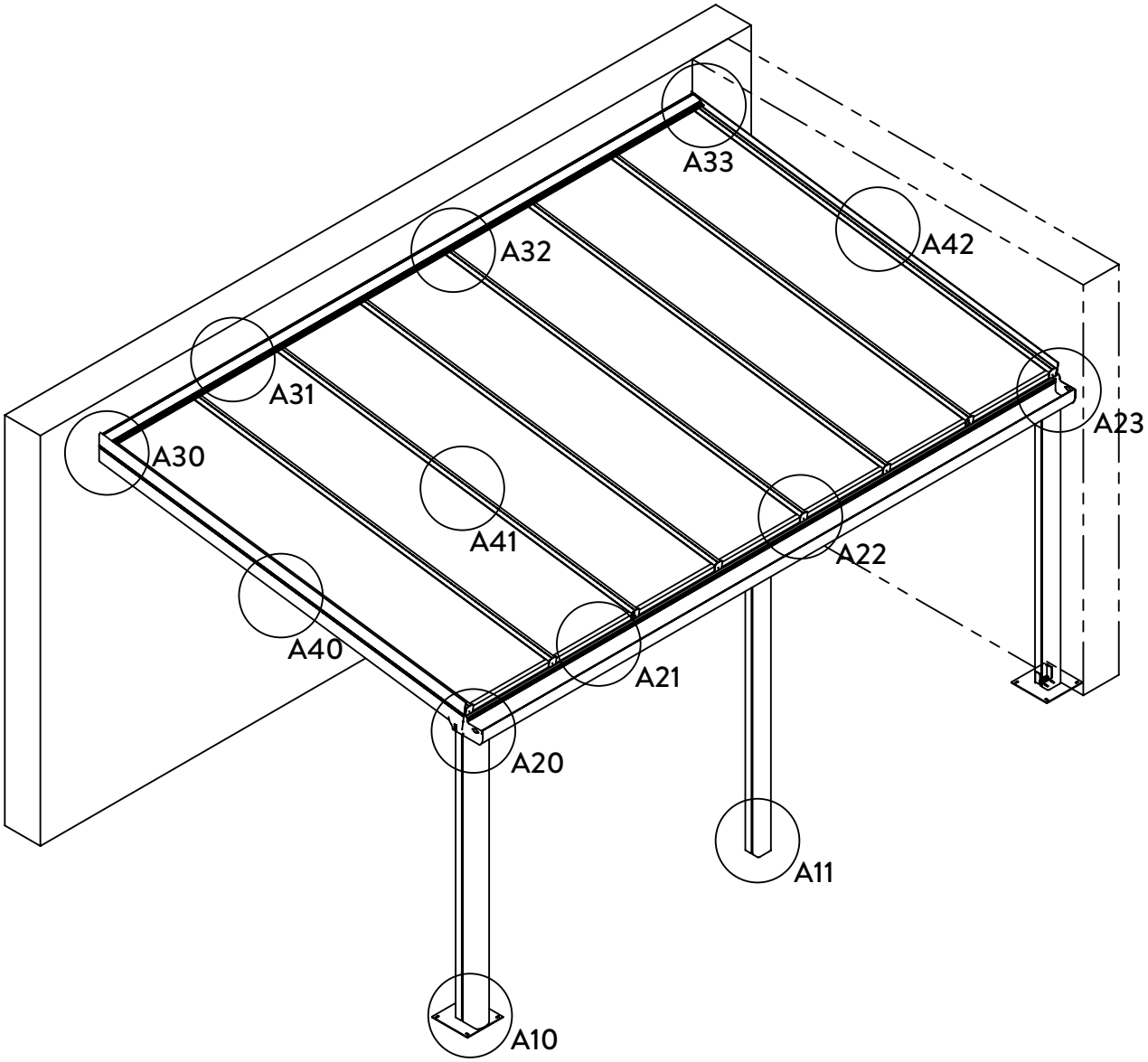
♦ Screwed clipses cause more creak noises with synthetic sheets.

♦ If you would like to avoid crack noises, we advise you to always use the TP and TPH profiles. The TP can expand and shrink with the synthetic sheets or alu sandwich sheets.

15. FURTHER INSTRUCTIONS

♦ Only use sheets with identic production number per project to avoid colour differences.

Overview drawing of the conservatory roof



A10 - A11: posts, page 13, 29

A20 - A23: gutters, page 14-18, 29

A30 - A33: wall profiles, page 19, 29

A40 - A42: rafters, side rafters, page 20-28

Climalux®

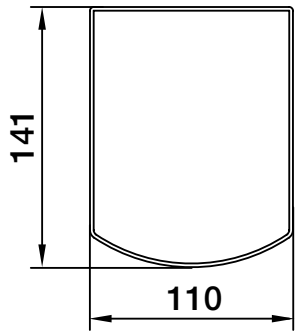
Installation tips

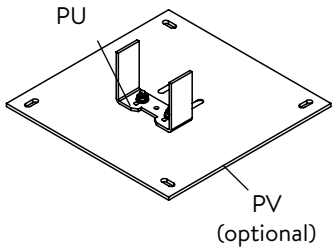
Posts

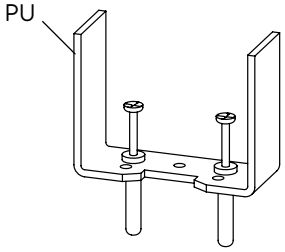
Determine the length of the posts (H_N + H_G) in function of the slope and the position of the wall profile (H_M).

Post for gutter GX	**accessories for corner post**	**accessories for middle post**
	Base plate PV (optional) and U-shaped bracket	U-bracket

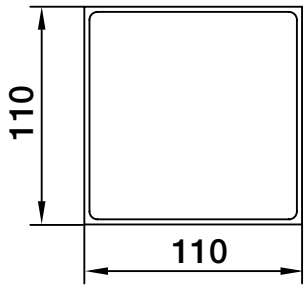
Post PX 110/141

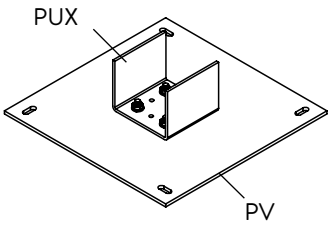


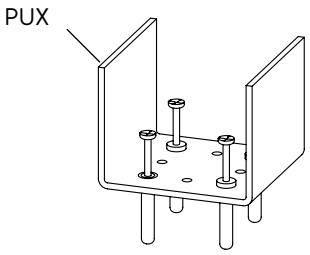




Post for gutter rafter GDX
(for roof with overhang)
Post PGDX 110/110 for gutter rafter GDX







Bolt the U-bracket to the PV base plates (fig A) using the BMR screw set (fig B) for the corner posts. Determine the position of the PV base plates as indicated on page 7 and anchor these on a solid foundation in concrete using the suitable fixing accessories (not supplied). Position the U-bracket correctly on the base plate and fix it. The U-bracket for the middle posts can be installed without a base plate directly on a solid basis. Position the posts over the brackets. Position these perpendicularly (level) and shore these temporarily to ensure they do not fall over. The top part of all posts must be completely aligned and level.

Fig. A

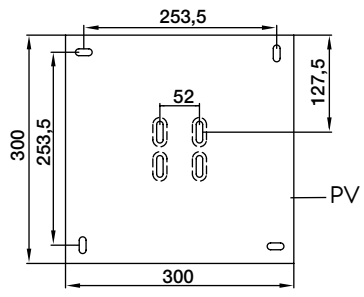
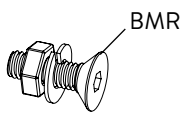
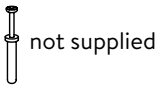


Fig. B



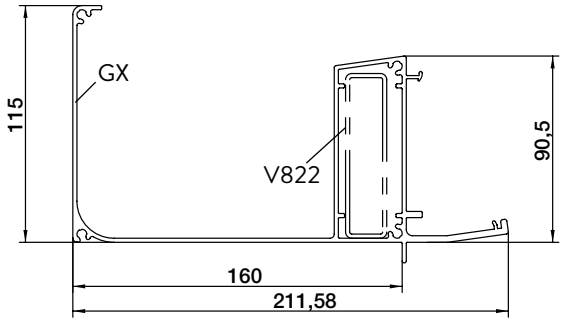


Gutter

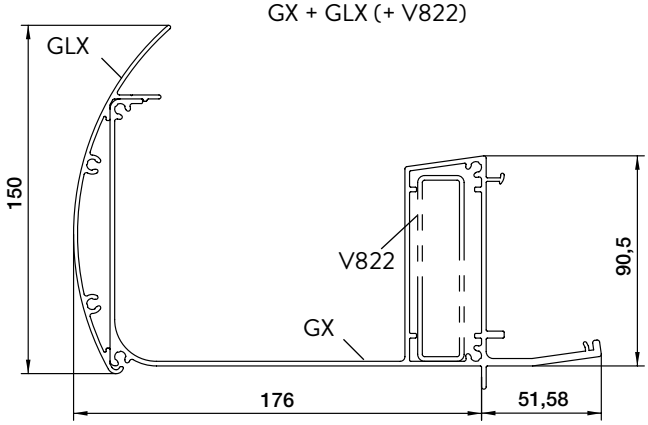
Multiple gutter combinations are possible.
Use the load graphs on page 31-33 or calculate using the Climafast calculation application:

gutter combination (with reinforcement profile

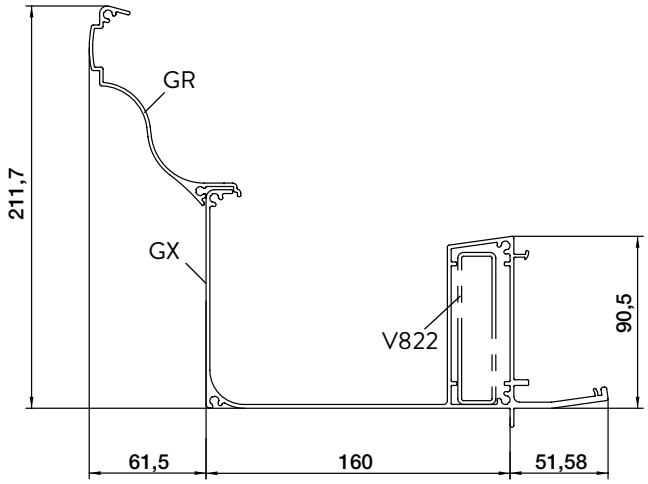
GX (+ V822)



GX + GLX (+ V822)



GX + GR (+ V822)

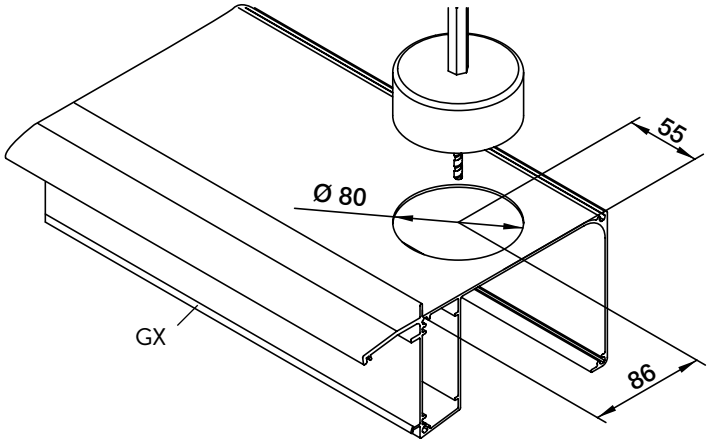


Make sure there is a play of 10 mm if the gutter combination is to be installed between two walls. The 5 mm clearance on each side is required for the installation of the slide ends.
Pre-drilling is required to install the U-brackets if the gutter (rafter) is reinforced with a steel profile. The use of strong self-drilling screws is recommended.

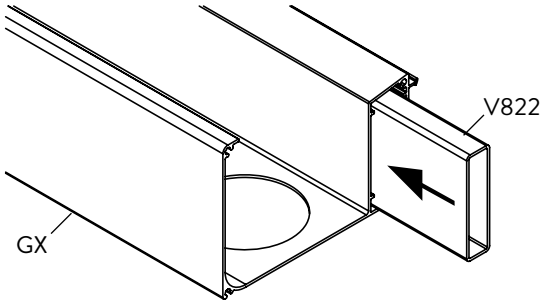
* The reinforcement profile V822 is not supplied. It can be bought at any local hardware store.
  We recommend treating the reinforcement profiles with an anti-corrosion product.

Gutter GX

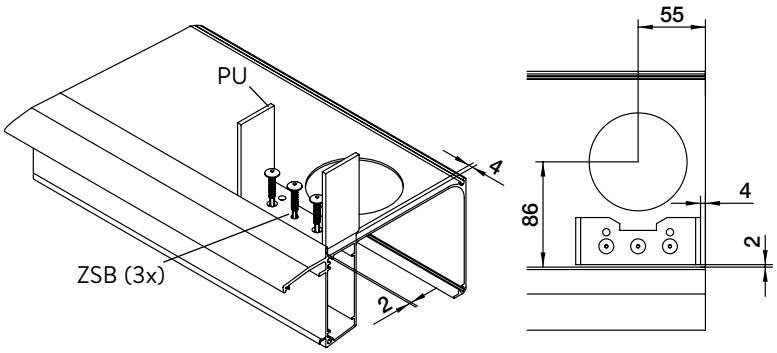
Assemble the gutter components to prepare for the installation of the gutter



Cut out the opening for the water outlet.
Use a Ø 80 mm circular drill (not supplied).



Slide in the reinforcement profile V822 (optional).

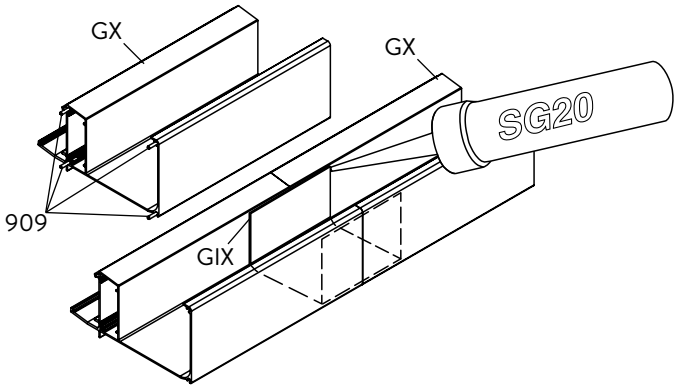


Installation of the U-bracket PU
Use the post caliber for the correct positioning.

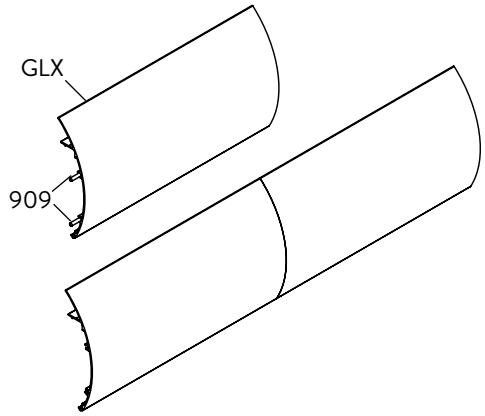
* The reinforcement profile V822 is not supplied. It can be bought at any local hardware store.
We recommend treating the reinforcement profiles with an anti-corrosion product.

Gutter

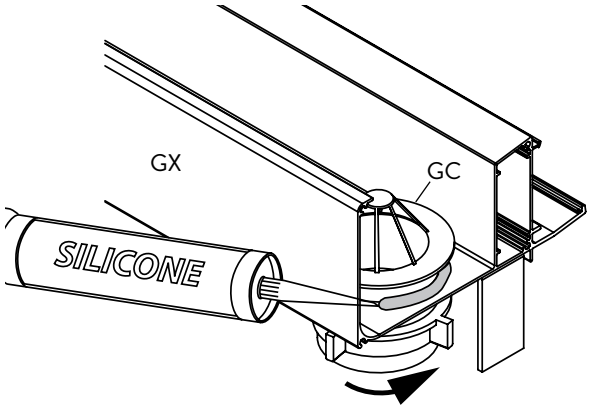
Multiple gutter elements can be connected to each other for gutter lengths > 7 m.
A gutter support must be installed at every gutter connection point.
The gutter profiles can be linked using connection pins 909 and the connector profile GIX. Use silicone SG20 as sealant.



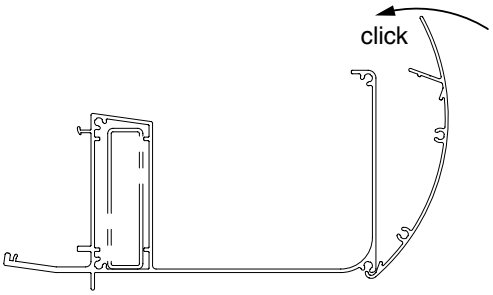
GX + GIX + 909 (4x)



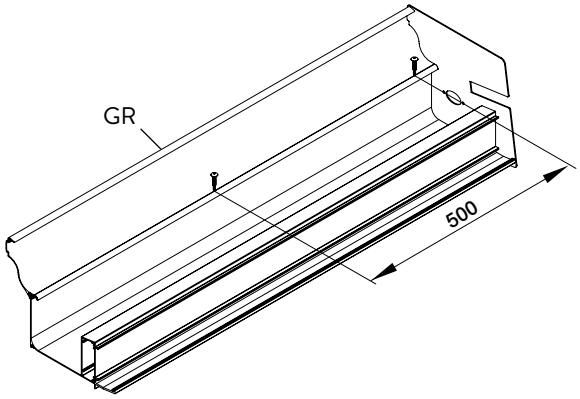
GLX + 909 (2x)



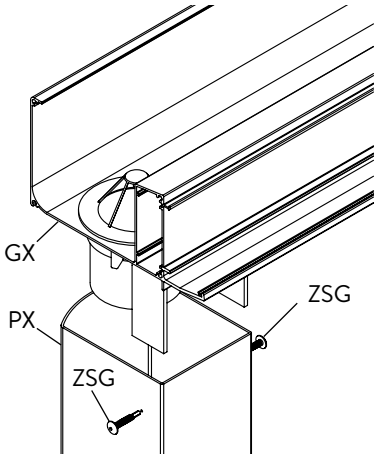
Install the water outlet in the gutter opening and seal using silicone.



The ornamental frame GLX is clipsed by a turning movement on to the gutter. Start at one of the ends.



A raised profile GR can be installed on the GX gutter. Position the side gutter slide ends first and subsequently fasten the GR profile on to the gutter every 500 mm.



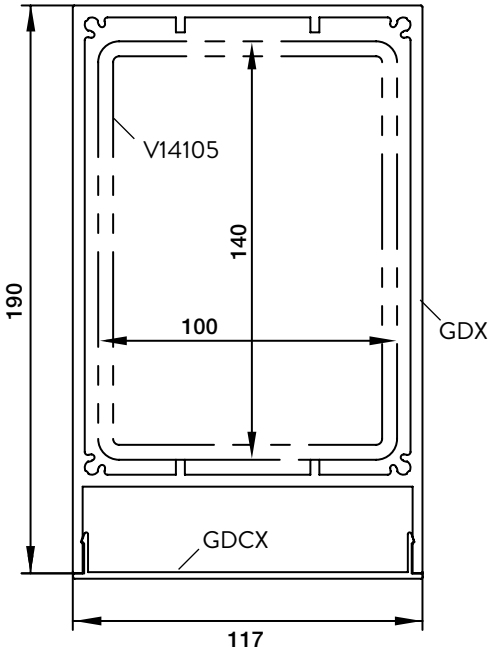
Place the pre-assembled gutter on the posts and fasten the construction using lacquered screws ZSG. The gutter slide ends must be pre-installed now if the gutter is installed between two walls (see page 29).

Gutter rafter for roof with overhang

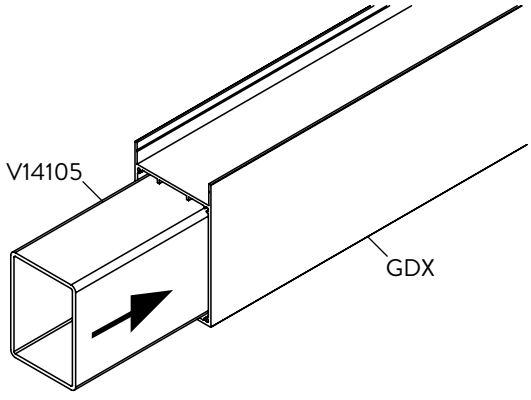
Components

gutter combination (with reinforced profile)

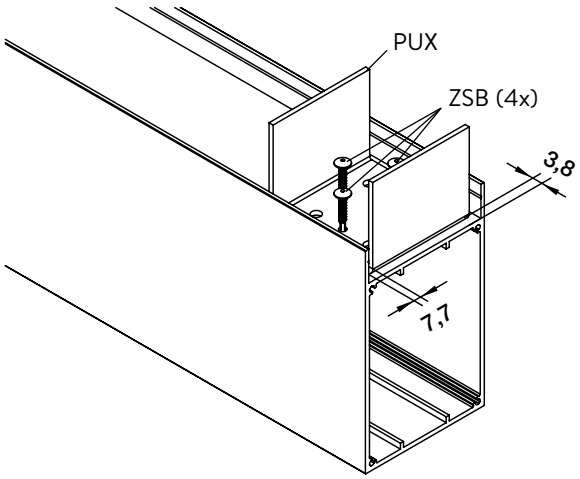
GDX + GDCX (+ V14105)



Preparation



Slide in the reinforcement profile V14105 (optional). Fixing the reinforcement profile V14105 on to the GDX (top and bottom) has a favourable influence on the solidness.

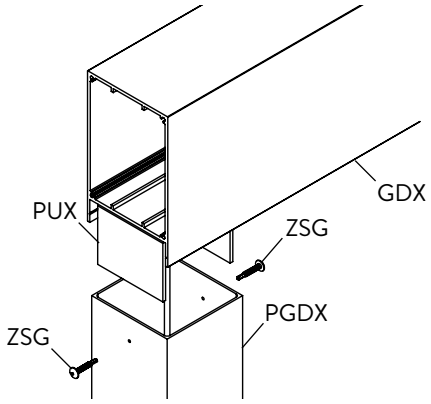


Installation of the U-bracket PUX.

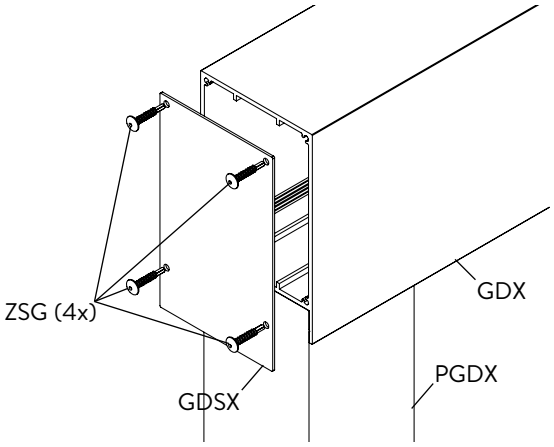
* The reinforcement profile V14105 is not supplied. It can be bought at any local hardware store. We recommend treating the reinforcement profiles with an anti-corrosion product.

Gutter rafter for roof with overhang

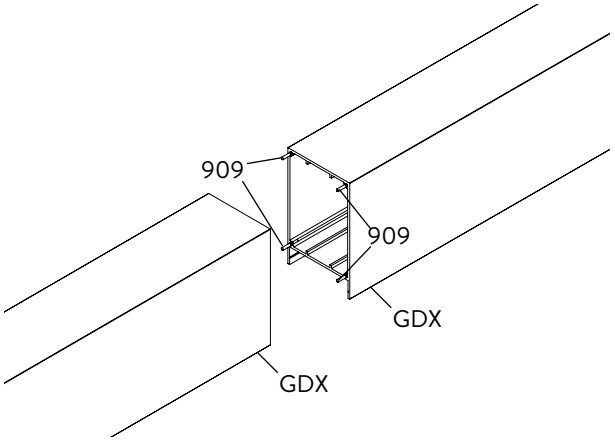
Installation



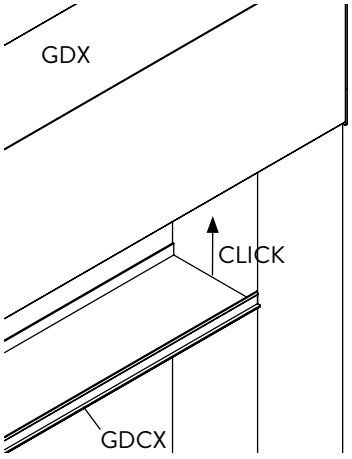
Fix the gutter rafter on the posts and fasten the construction with the lacquered screws ZSG.



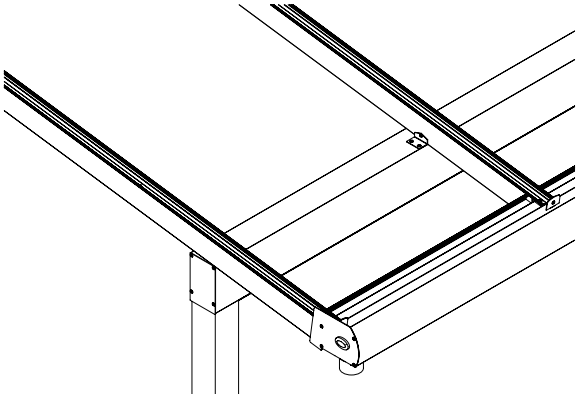
Fix the slide ends GDSX with the ZSG screws.



Multiple gutter elements can be connected to each other for gutter lengths > 7 m. A gutter support must be installed at every gutter connection point. The gutter profiles can be linked using the reinforced profile V14105 and the connection pins 909. Fasten the gutter rafters GDX on top and bottom on to the reinforcement profile V14105.



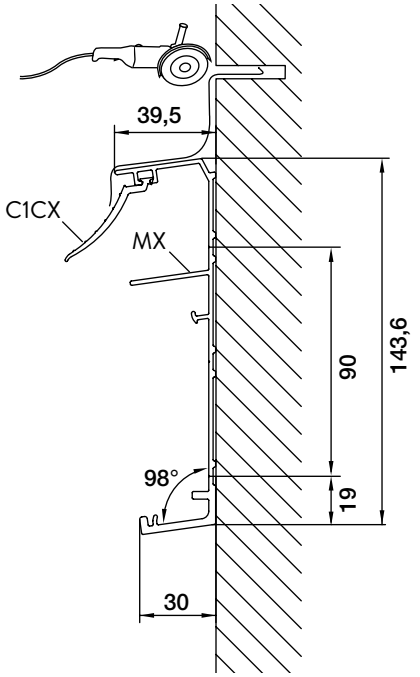
Cut the finishing clips to length and clips it at the bottom side of the gutter rafter GDX.



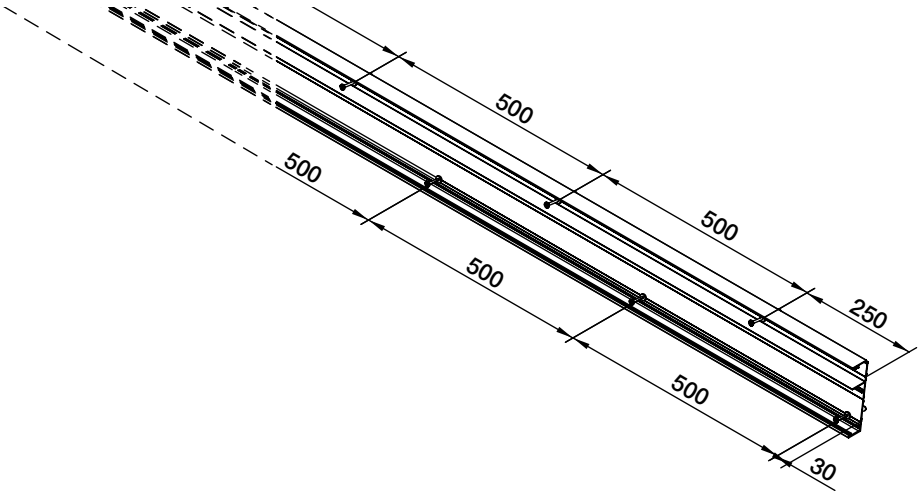
The construction of the gutter rafter supports the (side)rafters DX (page 22).

Wall profile

Components



Preparation



Install a lead slab to ensure a waterproof junction to the walls. Make a slot in the walls against which the conservatory roof is to be installed (page 8). Install a lead slab or zinc flashing.
Drill a hole in the wall profile MX at 250 mm from the ends and subsequently every 500 mm at the top indication line with a diameter in function of the chosen fixing material. Drill also a hole every 500 mm in the bottom indication line and start at 30 mm from the edge.
Important: Slight the rubber C1CX in the profile MX before mounting.

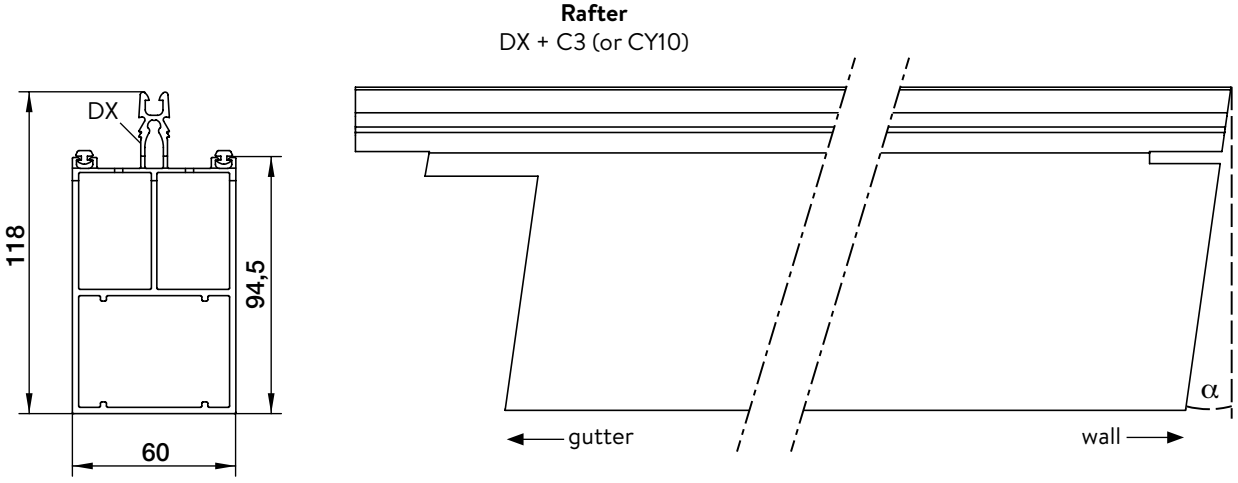
Installation

Fix the wall profile using the adapted anchoring. The holes in the bottom wall profile correspond to the height HM + 19 mm and HM + 109 mm on the wall.
Finish the top side of the wall profile with silicone and with a lead slab or zinc flashing built-in in the wall.

Rafters and side rafters

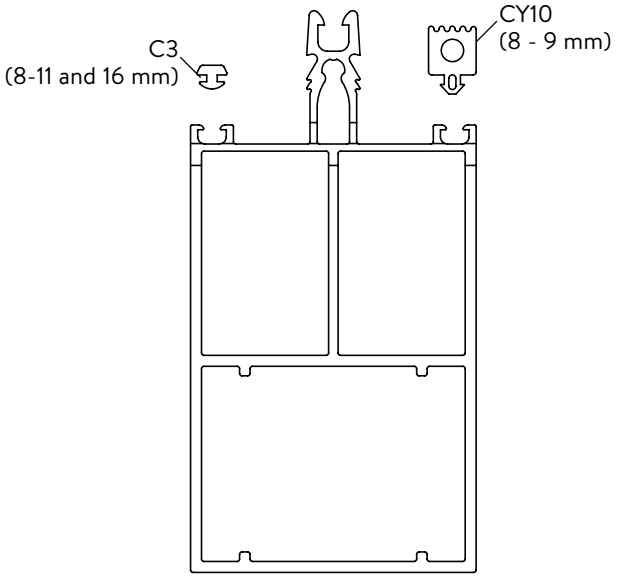
The rafters are pre-cut at the wall and gutter side. The slot at the wall side corresponds tot the rib of the wall profile. Check the rafter lengths in function of the glazing + snow and wind load (Use the load graphs on page 31 or calculate using the Climafast calculation application, at disposal for free for professionals).

Components

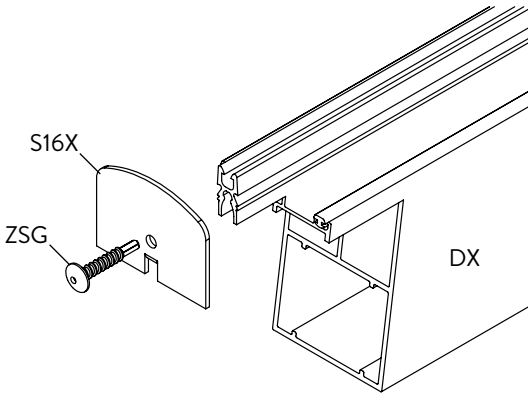


The rafters DX are pre-cut-to-size.

Preparation



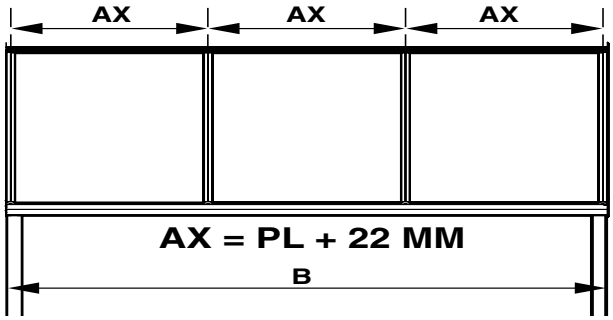
Fix the support seals on both sides of the rafter DX:
C3 for glazing thicknesses 8-11 and 16 mm
CY10 for glazing thicknesses 8 and 9 mm



Fasten the stop profiles S16X on to the gutter side of the rafters with the supplied ZSG screws.

Rafters and side rafters

Installation



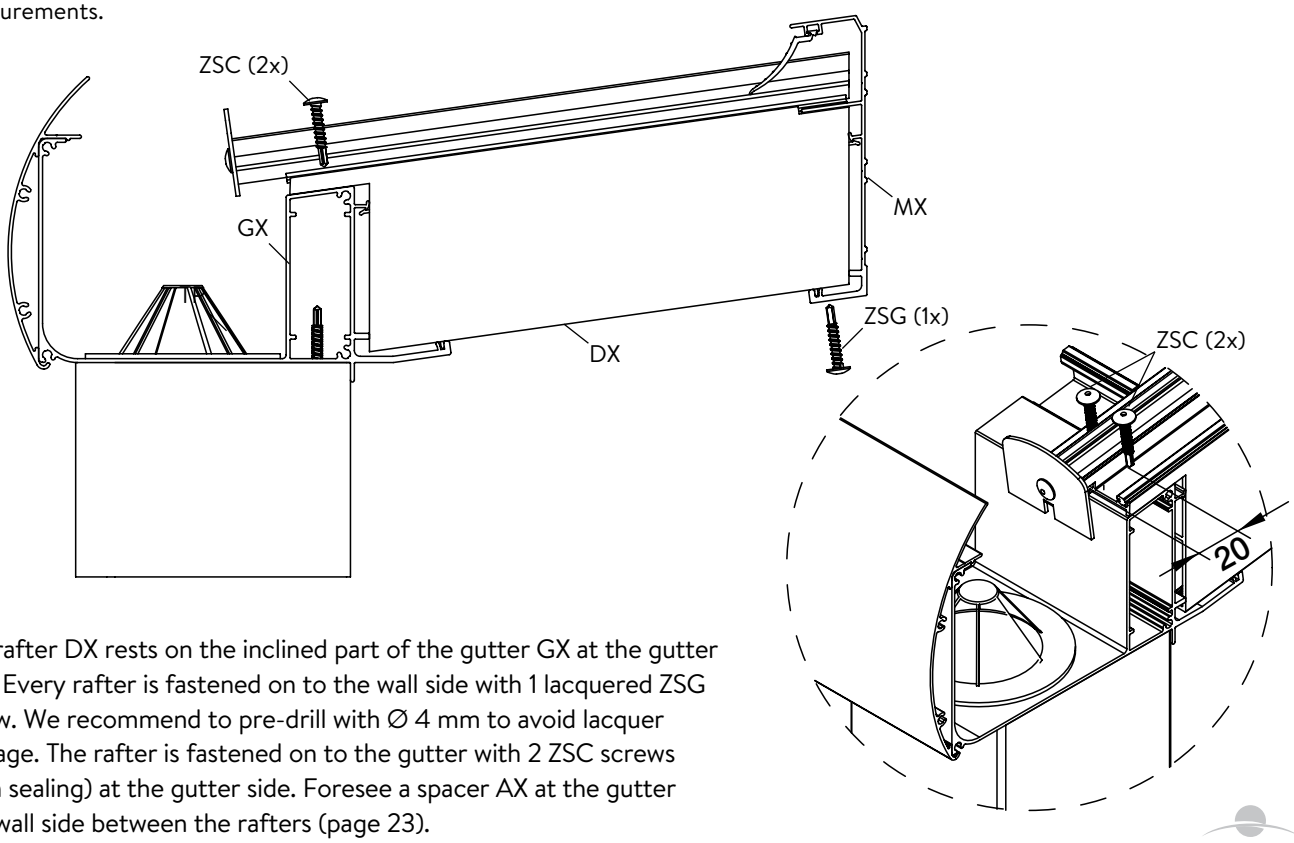
The number of rafters and their position must be determined in function of the glazing and the load. Check the axis distance in relation to the depth of the conservatory (D) and the load (glazing + snow and wind). See the graphs on page 31-33 or use the Climafast calculation application.

The total width of polycarbonate or acrylic plastic sheets is used except for the left and/or right sheet which may be cut to fit. The axis distance between the spacers AX = sheet width + 22 mm. Take into account a lateral clearance of 5 mm on each side. All useful information for the processing and installation of glazing plastics can be found on page 9 & 10.

Divide the total width in equal parts of maximum 750 mm for glass. The glazing quantity is determined as following: (B-60 mm)/ 750 rounded off upwards. The width of the glazing is determined as following: ((B-60 mm) / glazing units) - 22 mm. please follow the instruction of your glass supplier.

Installation on the gutter GX

Mark out the positions of the rafters on the profiles (on the gutter and the wall) and check the axis-on-axis measurements.

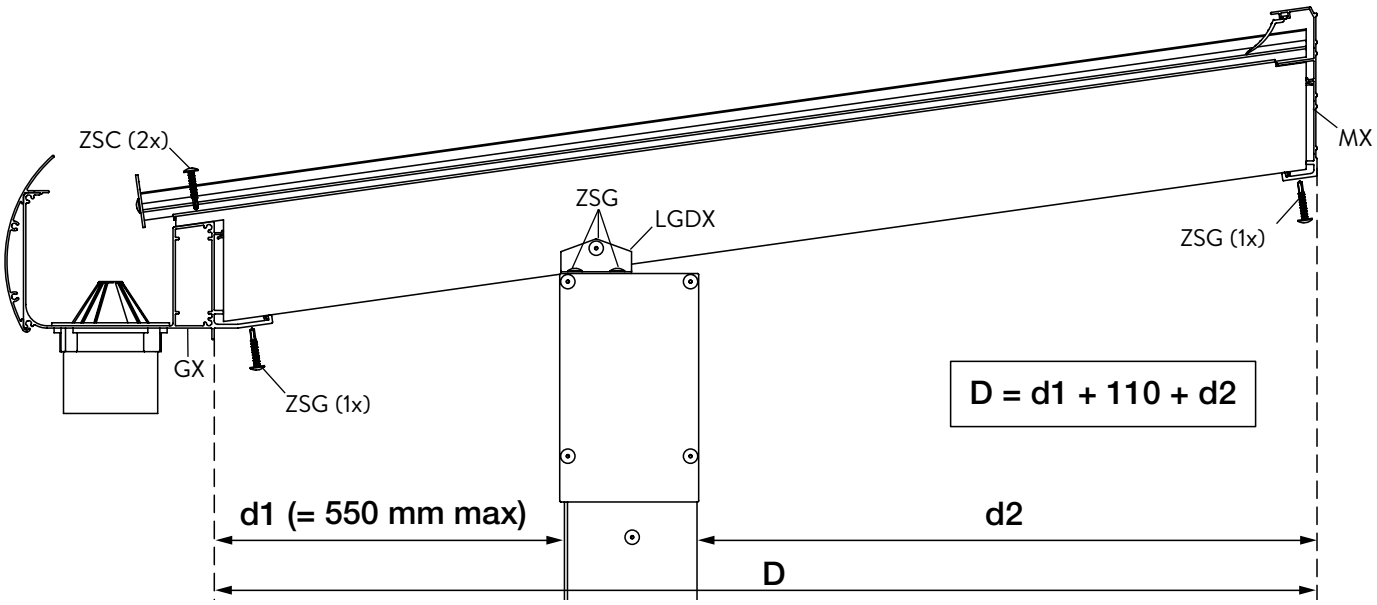


The rafter DX rests on the inclined part of the gutter GX at the gutter side. Every rafter is fastened on to the wall side with 1 lacquered ZSG screw. We recommend to pre-drill with Ø 4 mm to avoid lacquer damage. The rafter is fastened on to the gutter with 2 ZSC screws (with sealing) at the gutter side. Foresee a spacer AX at the gutter and wall side between the rafters (page 23).

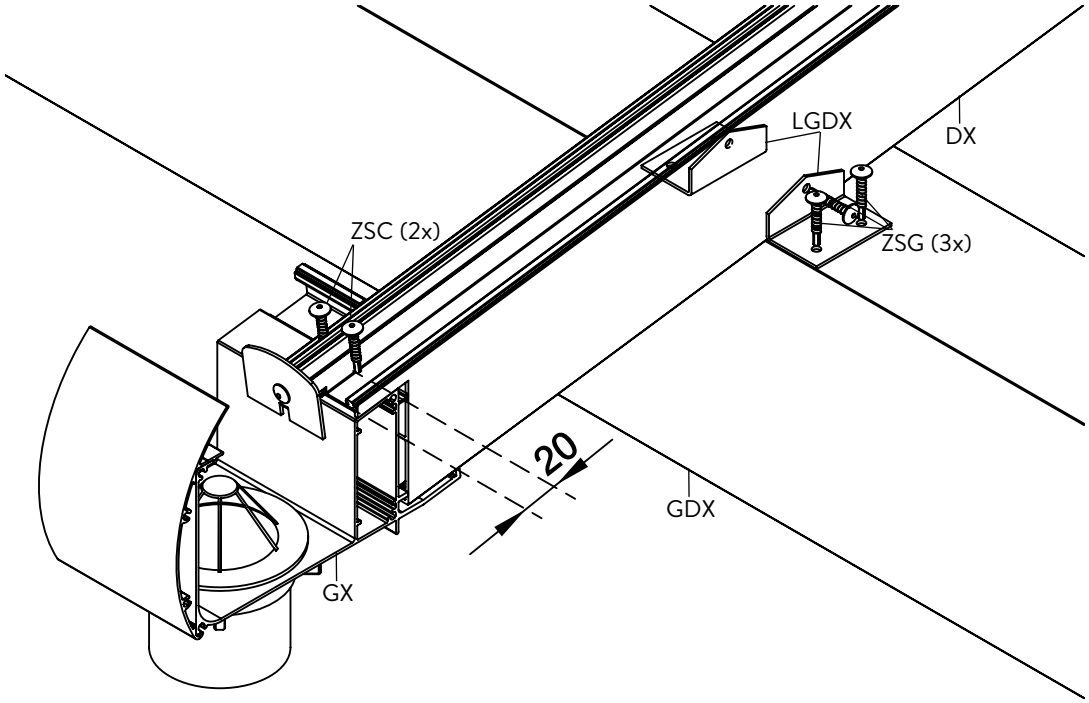
Rafters and side rafters

Installation on the gutter rafter GDX for roof with overhang

Mark out the positions of the rafters on the gutter rafter GDX and check the axis-on-axis measurements.

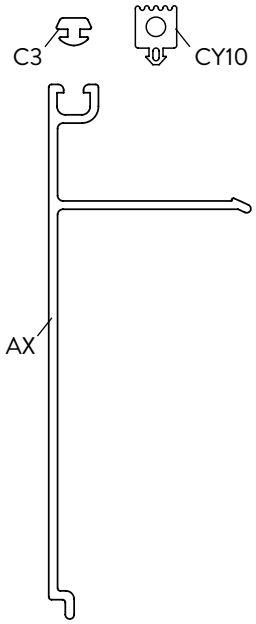


The rafter DX rests on the gutter rafter GDX at the gutter side. Every rafter is fastened with 2 fixing profiles LGDX and ZSG screws.
Every rafter is fastened on to the wall side with 1 lacquered ZSG screw. We recommend to pre-drill with ∅ 4 mm to avoid lacquer damage. The gutter GX is fastened on to the rafters with 2 ZSC screws (with sealing) per rafter at the top side and 1 lacquered ZSC screw at the bottom side. Foresee a spacer AX at the gutter and wall side between the rafters (page 23).



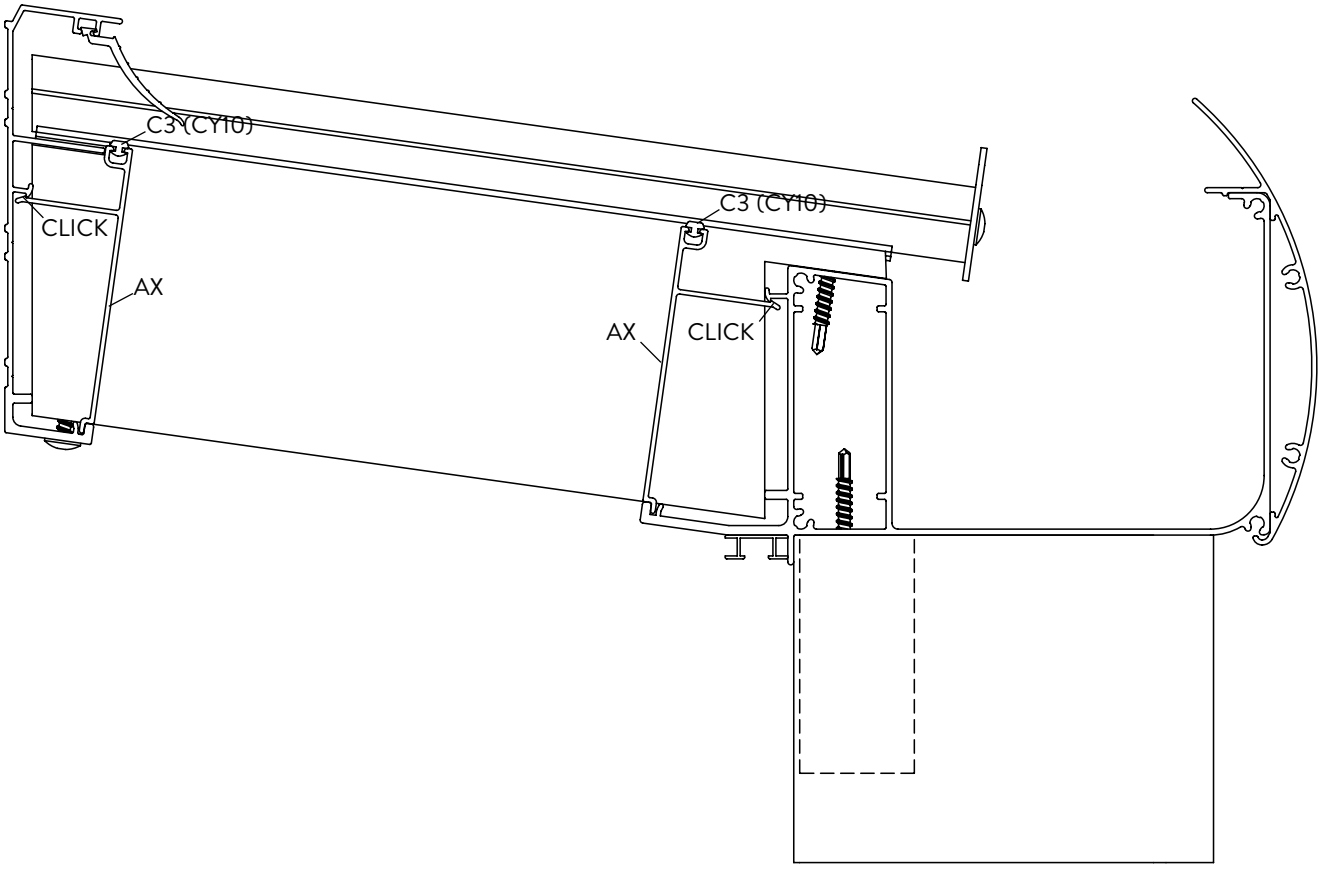
Spacers

Preparation spacers AX



Fix a sealant C3 (8-11 and 16 mm) or CY10 (8 & 9 mm) on every spacer.

Installation spacers AX



A spacer AX is clipsed between the rafter profiles at the gutter and walls side.

Climacrown

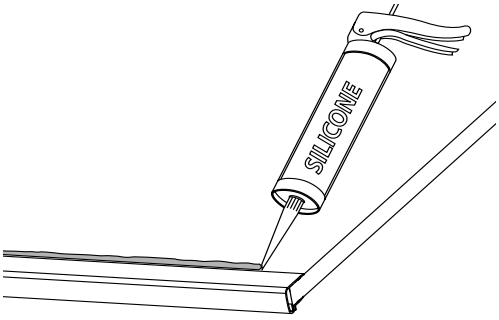
The option Climacrown is a cornice that is mounted around the Climalux roof. If this option is provided, then the Climacrown must be mounted before the glazing is installed on the roof.
See mounting instructions Climacrown (art 48477).

Glazing: plastic sheets

Preparation

The maximum thickness of the plastic sheets is 16 mm. Only the left and/or the right sheet are cut to size. Take into account a lateral clearance of 5 mm on each side (page 21). Ensure each sheet has an end profile on the gutter side. Check whether the end profile is perforated at the bottom. This is required for proper water drainage. Ensure that the UV protected side of the sheet is always upwards. All useful information for the processing and installation of glazing plastics can be found on page 9 & 10..

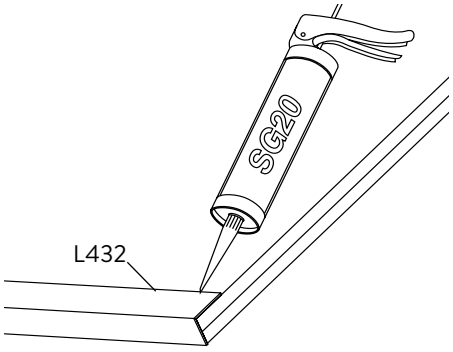
Apply a silicone sealant that does not affect plastic material at the upper edge of the end profile. Ensure that the multiple-walled plastic sheets have sufficient slope to be able to appeal to the guarantee.

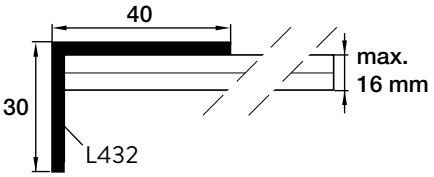


Glazing: glass sheets

Preparation

The maximum thickness of the glass sheets is 10 mm. Always use laminated glazing (44.2 or 55.2) in your conservatory roof according to the applicable standards. Consult your glass supplier.





Stick a L-shaped end profile L432 on the crosscut side of the glass. Use silicone SG20.

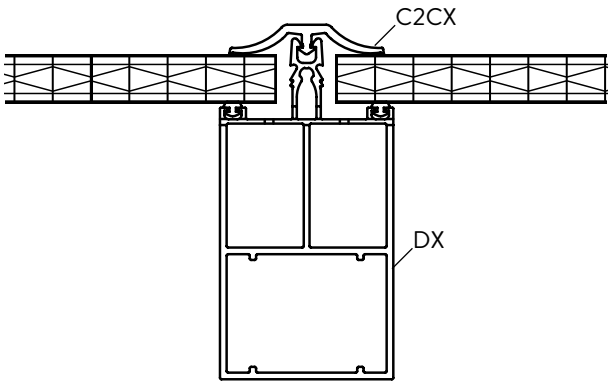
Glazing connection

When the glazing (plastic sheets or glass) consists of multiple parts, the parts can be connected using glass connection profiles. Specific installation instructions can be requested.

Finish

RAFTERS

SEAL FINISH

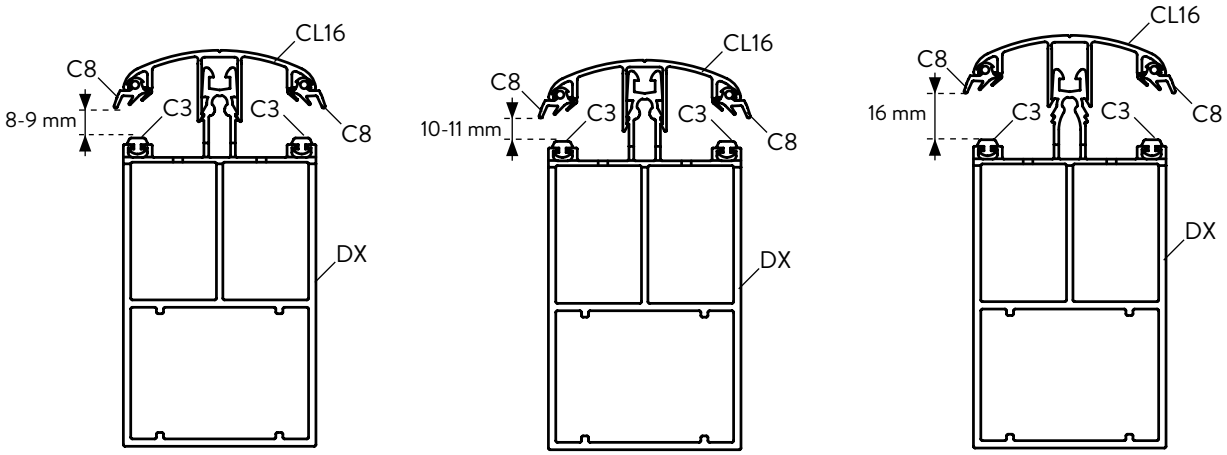


Finish using seal C2CX for plastic sheets or glass: the glazing thickness and options are provided in the table on page 35.

CLIP FINISH

For plastic sheets or glass: the glazing thickness and options are provided in the table on page 35.

Standard clips



Push seal C8 on both sides into the clips. Ensure that seal C8 does not continue up to the end of the gutter side but to the end profile on the glazing. CL16 is fastened with the clips to the rafter.

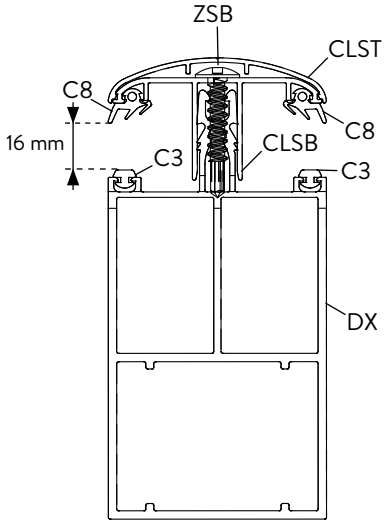
There are 3 positions for the clips:
Position 1: for glass 44.2, thickness 8 – 9 mm
Position 2: for glass 55.2, thickness 10-11 mm
Position 3: for 16 mm synthetic sheets
The clips are fastened manually using a rubber hammer and a plank. Ensure the clips are not dented.

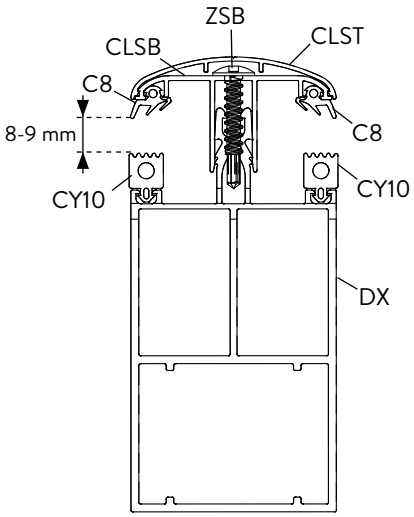
Finish

RAFTERS

Screwable clips

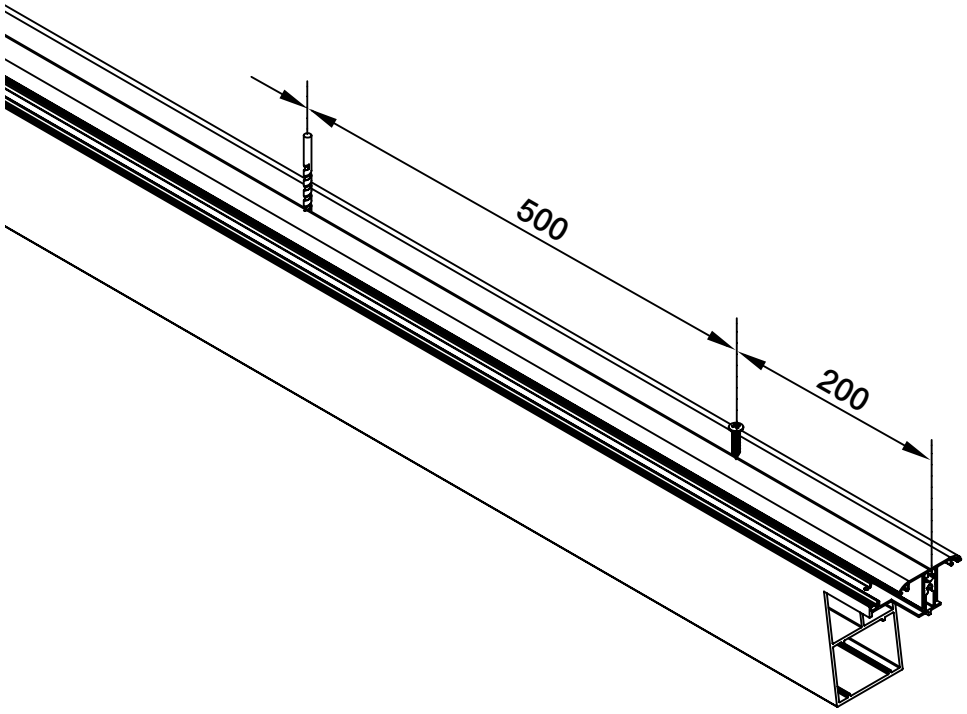
For plastic sheets (Pergotop/Pergotop-Soft sandwich panels are only adapted in combination with Skylux screwable clips) or glass: the glazing thickness and options are provided in the table on page 35.





The screwable clips consists of 2 parts:
- the bottom clips CLSB
- the top clips CLST

Push seal C8 on both sides into the clips CLSB. Ensure that seal C8 does not continue up to the end of the gutter side but to the end profile on the glazing.



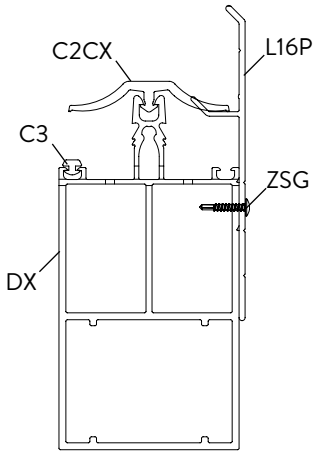
Drill holes with a ∅ of 5.5 mm in the CLSB every 500 mm, starting and ending at 200 mm from the ends. Fasten the CLSB to the rafter DX using ZSB screws. Fasten perpendicularly and use a slight torque to ensure the screw head is pressed flat against the CLSB. The CLST clips must be fastened manually using a seal hammer and a plank. Ensure the clips are not dented.

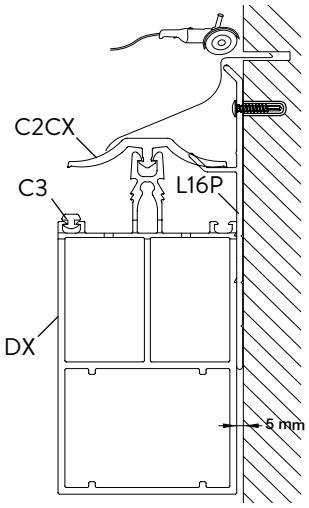
Finish

SIDE RAFTERS

SEAL FINISH

Finish using seal C2CX for plastic sheets or glass: the glazing thickness and options are provided in the table on page 35.

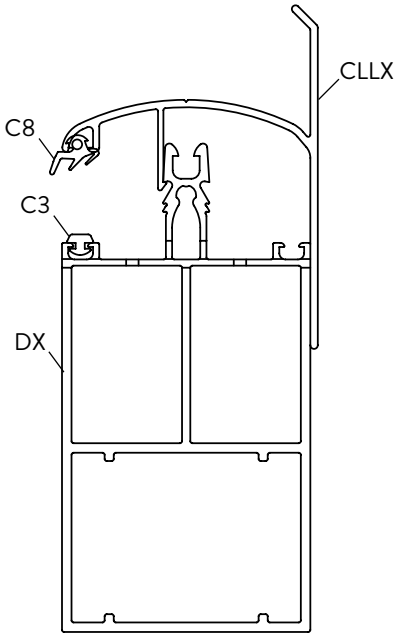




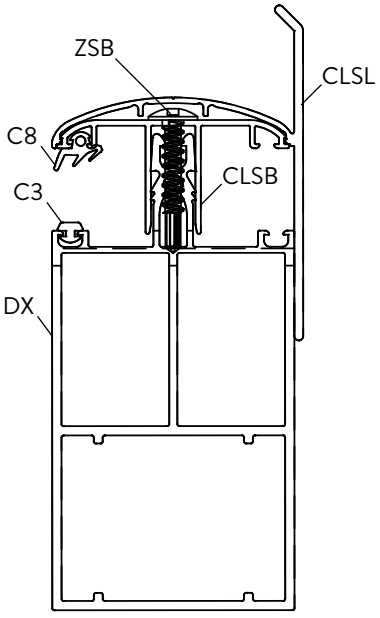
Push the seal C2CX in the side rafter DX. Cut the side finishing profile L16P obliquely in accordance with the roof slope (x) at the wall side. To determine the length of the L16P profile, measure the distance from the wall to the stop profile. Position the L16P profile against the outside against the rafter. If you work with VRIJSTAAND or against the wall, fasten the L16P profile every metre laterally against the rafter (with ZSG) or against the wall.

CLIP FINISH

For plastic sheets or glass: the glazing thickness and options are provided in the table on page 35.



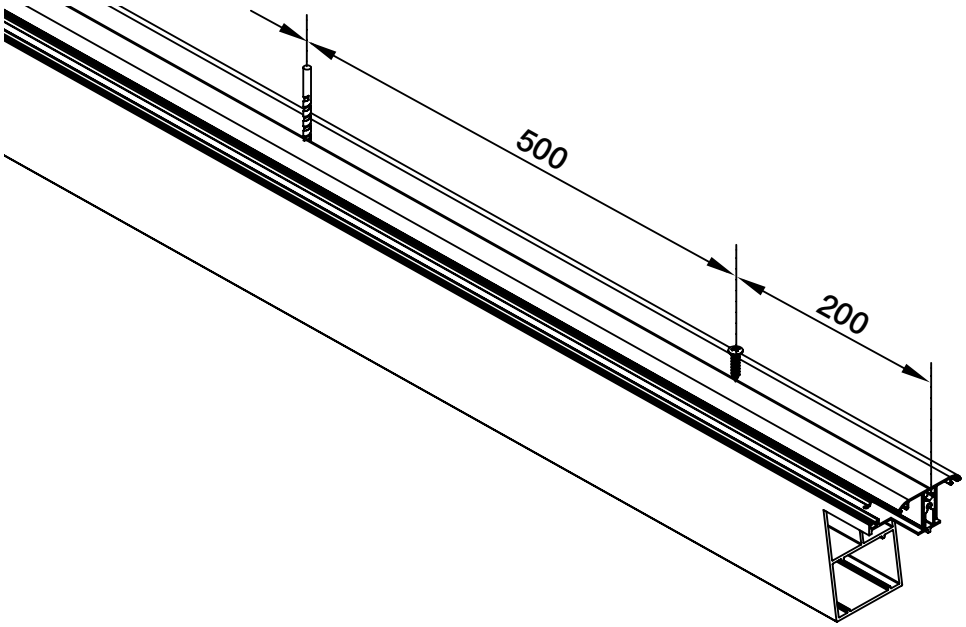
CLLX for plastic sheets or glass with a thickness of 8 -11 mm or 16 mm : fix the seal C8 at 1 side in the clips.



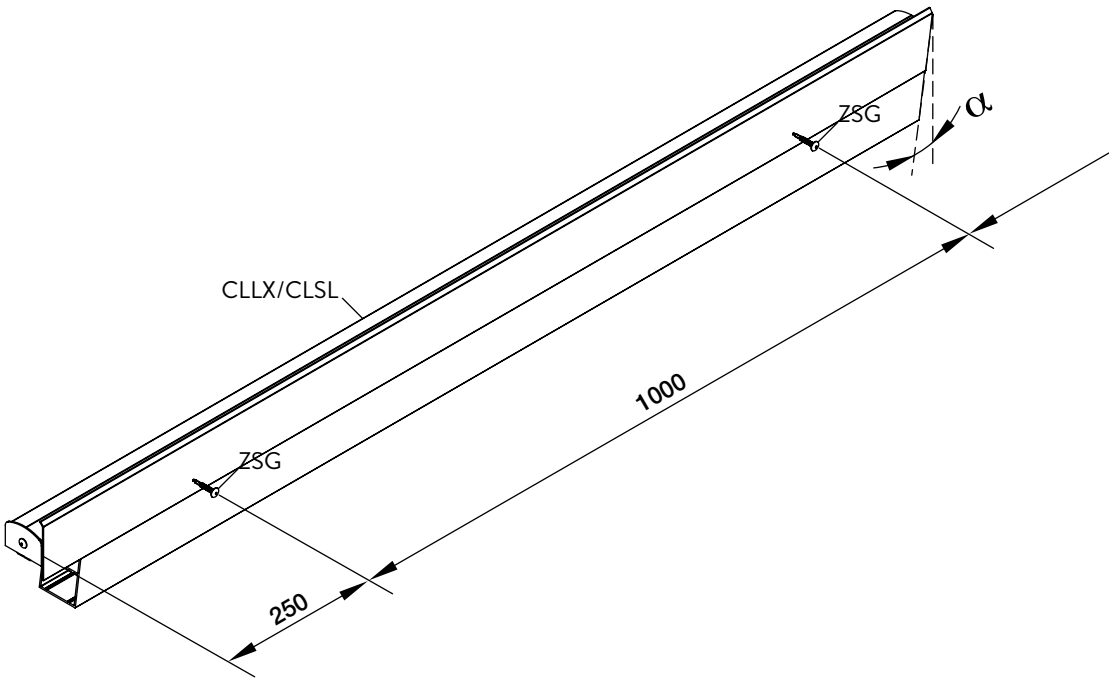
CLSB + CLSL for plastic sheets or glass with a thickness of 15 or 16 mm with seal C3. With seal CY10 also possible for glass of 8 or 9 mm. Fix the seal C8 at 1 side in the clips.

Finish

Installation screwable side clips



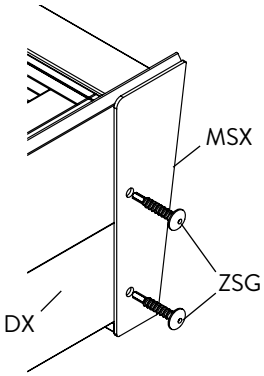
Drill holes with a Ø of 5.5 mm in the CLSB every 500 mm, starting and ending at 200 mm from the ends. Fasten the CLSB to the side rafter DX using ZSB screws. Fasten perpendicularly and use a slight torque to ensure the screw head is pressed flat against the CLSB.



Cut the CLLX/CLSL profile obliquely in accordance with the roof slope (x) at the wall side. To determine the length of the CLLX/CLSL profile, measure the distance to the stop profile. Position the CLLX/CLSL profile at the outside against the rafter and press manually or use a rubber hammer with a plank. If you work with VRIJSTAAND or against the wall, it is necessary to fasten the CLLX/CLSL profile every metre laterally against the rafter (with ZSG) or against the wall.

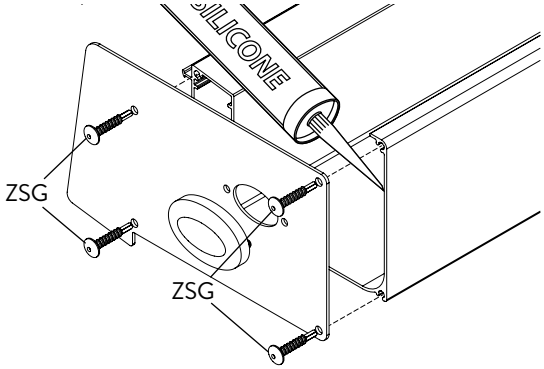
Finish

WALL PROFILE

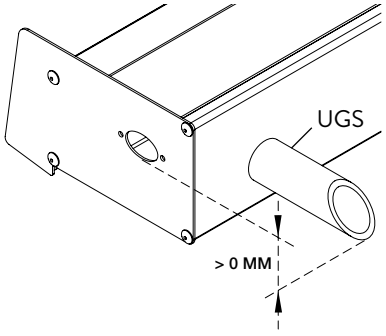


Fasten the MSX slide end on to the VRIJSTAANDE / freestanding sides of the wall profile with 2 ZSG screws in the rafter DX. Only fasten the MSX after the installation of the roof is finished.

GUTTER

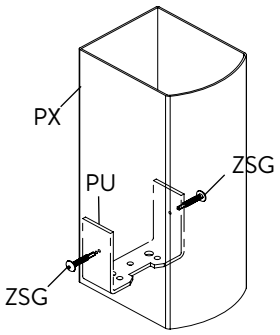


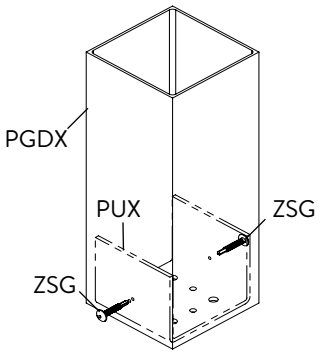
Install the slide ends and click the plastic plug in the corresponding holes. Apply a silicone sealant to the interior of the slide end.



A frontal UGS water outlet is required to ensure that the water can flow outside when the water drainage is obstructed if the gutter has a wall on both sides. Drill an opening with a Ø of at least 33 and no more than 35 mm at the front of the gutter. This opening should be lower than the overflow in the gutter and the panels.

POSTS





Check if the posts are perfectly vertical (level) and fasten at the bottom and top in the U-brackets with 2 lacquered screws ZSG. We recommend to pre-drill with Ø 3 - 4 mm to avoid lacquer damage.

Load graphs

General considerations

The following pages contain the load graphs for the Climalux profile system. You can use these to determine the free span of the gutter profiles and the supports in relation to the prescribed load.
A distinction is made between Climalux roofs with plastic sheets (pages 78 & 79) and Climalux roofs with single and double glazing (pages 80 & 81).

The maximum allowable bending is 1/200 (= 1 cm per 200 cm free span) with plastic sheets.
This includes the weight of the structure and the plastic sheets. Select the graph in relation to **the prescribed snow and wind load**. This depends on the region and the orientation.

The maximum allowable bending is 1/300 (= 1 cm per 300 cm free span) with single glazing.
This is including the weight of the structure. In order to determine the total load, add **the weight of the glazing to the prescribed snow and wind load**. To determine the weight of the glazing, calculate 2.5 kg per m^2 and per mm thickness. Example: single glazing with a thickness of 8 mm weighs 8 x 2.5 = 20 kg/m^2. After converting into N/m^2 x factor 9.81, this results in 20 x 9.81 = 196.20 N/m^2. Suppose the prescribed snow and wind load is 500N/m^2 and the glazing is 200 N/m^2, the total load would be approximately 700 N/m^2. In order to limit the weight of the glazing, the axis distance between the support profiles (AX) is limited to a maximum of 750 mm. The total width of the roof is divided into equal parts.

The bending of 1/200 of 1/300 is achieved with a maximum load. For example, a gutter support of 5000 mm with a maximum bending of 1/300 will bend 16.6 mm when loaded. Less if unloaded

These graphs do not apply with regard to a continuous support or a structure under the gutter profiles installed by the customer.
The gutter profiles may put pressure on supporting window profiles when installed on top of each other.
A possible bending of the gutter profile above the sliding doors should, therefore, be taken into account.

When the selected gutter (support) cannot be installed where a certain span or load is concerned, select a gutter support that can handle a larger span. You could also install an extra post to decrease the free span.
“Span” refers to the distance between the posts. The total width of the roof = the free span + the width of the posts.

The roof’s supporting posts should always be located at the corners of the roof. We do not recommend moving the post supports inwards.

Any sun blind installed on the profiles are at your own risk and should be included in the calculation as an additional load.

In case of large spans or loads, the use of reinforcement profiles is recommended. These are slid into the aluminium profiles. The reinforced profiles V822 and V14105 are not supplied. These can be bought at any local hardware store. We recommend treating the reinforcement profiles with an anti-corrosion product.

The selection of required fixing material is dependent on the foundation or the walls. Check whether the foundation and the walls on which the structure is to be anchored have a sufficient load-bearing capacity. The installer is responsible for the assessment of the appropriate fixing materials for the load and basis on which the structure is to be fixed. Please contact your fixing material supplier or specialised engineering consultants in case of doubts. Skylux cannot be held liable for the installation or the fixing material used.

We recommend removing any snow from the roof to prevent accumulation against the wall by the wind. When snow on a higher roof can slide on to the Climalux roof, measures must be taken to prevent this, for example, by using snow hooks and snow beams.

You can use the Climafast calculation application to select the correct profiles and support in relation to the dimensions of the Climalux roof, the prescribed load and the glazing.
The latest version of this calculation application can always be downloaded from www.skylux.be.

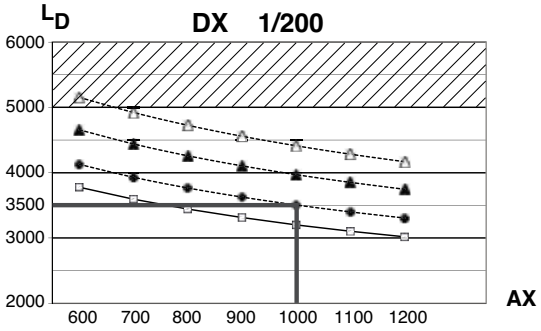
Load graphs rafters

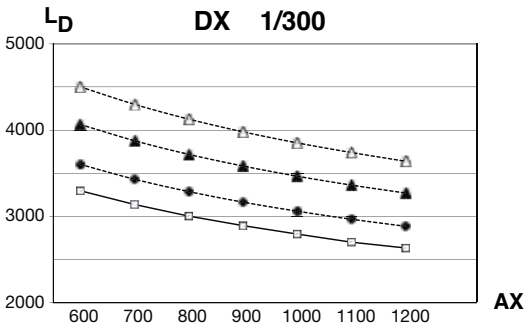
For roofs with plastic sheets or glass

The graphs below can be used to determine the free span for the rafter DX. This is the maximum length of the rafter in function of the load and the depth (D) of your roof. The maximum bending is 1/200 (plastic sheets) or 1/300 (glass). Eg. A bending of 1 cm for a free span of 200 cm or 300 cm. **The load is related to the snow and wind load**.

Practical example:
The axis distance (AX) between the rafters is 1000 mm (= for plastic sheets with a width of 980 mm). The depth (D) of the roof is 3500 mm. Determine the point on the graph “500 N/m² & 1/200”.

The maximum bending (1/200) with load is 17,5 mm. Less if unloaded.
The maximum deliverable length of the rafters is 5 metre.





---△--- 350 N/m²

---▲--- 500 N/m²

---◆--- 750 N/m²

—□— 1000 N/m²

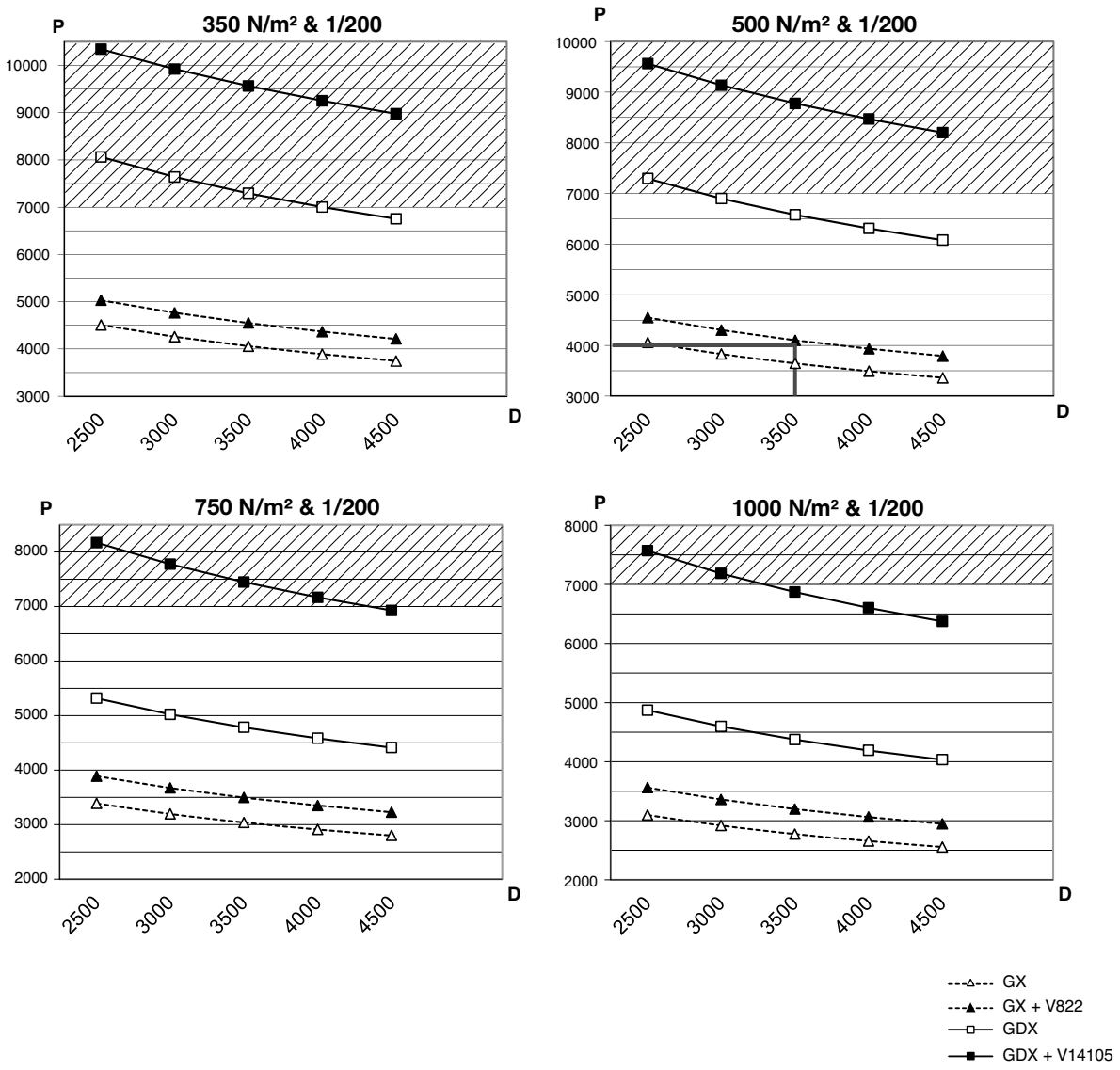
Load graphs gutter profiles

For roofs with plastic sheets

The graphs below can be used to determine the free span for each type of gutter (support). This is the distance between your supports (posts) in function of the load and the depth (D) of your roof. The maximum bending is 1/200. **The load is related to the snow and wind load**.

Practical example:
The roof has a width (B) of 4000 mm and a depth (D) of 3500 mm. The prescribed load is 500 N/m² (~ 50 kg/m²).
The roof is provided with muli-walled plastic sheets.
Determine the point in the "500 N/m² & 1/200" graph and select a gutter (support) above this point.

The graph now has two options:
Either you select the gutter GX with reinforcement V822 which allows a free span of 4100 mm.
Or you select a gutter rafter GX for maximum span of 3645 mm. You then have to install an extra post in the middle for support.
The span is the distance (P) between the posts. In this example, the width can be 4320 mm where the free span (P) between the posts = 4320 – (2 x 110) = 4100 mm.
The bending in the middle with a load of 500 N/m² is 1/200 or 400/200 = 20 mm. Less if unloaded.
The maximum deliverable length of the gutter profiles is 7 metre.



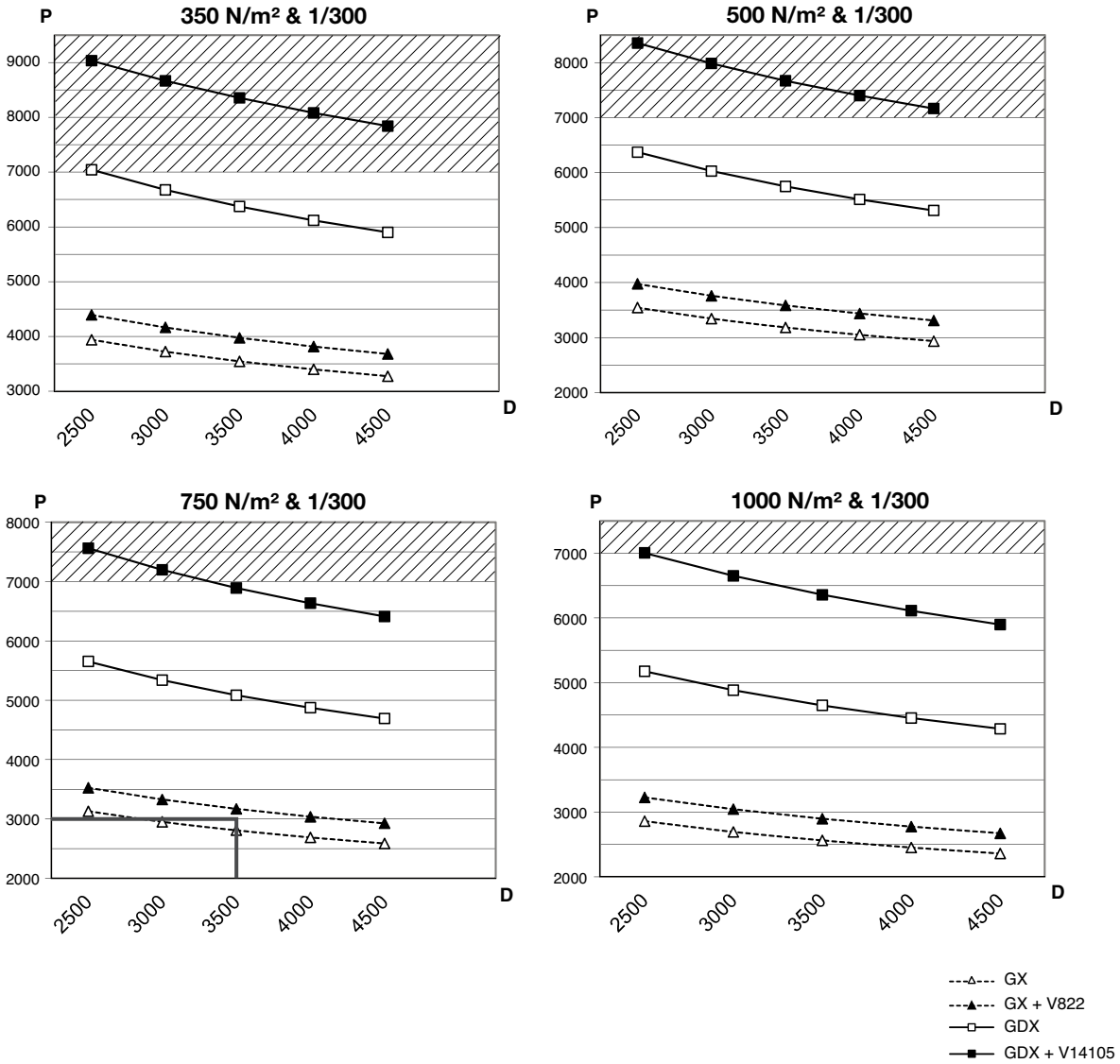
Load graphs gutter profiles

For roofs with glass

The graphs below can be used to determine the free span for each type of gutter (support). This is the distance (P) between your supports (posts) in function of the load and the depth (D) of your roof. The maximum bending for a construction with glass is 1/300. **The load is the sum of the weight of the glazing and the snow and wind load applied to the roof**.

Practical example:
The roof has a width (B) of 3000 mm and a depth (D) of 3500 mm. The prescribed load is 500 N/m² (~ 50 kg/m²).
The glass weighs 25 kg/m² (ca 250 N/m²). The total weight is 750 N/m².
Determine the point in the "750 N/m² & 1/300" graph and select a gutter (support) above this point.

The graph now has two options:
Either you select the gutter GX with reinforcement V822 which allows a free span of 3170mm.
Or you select a gutter rafter GX without reinforcement V822 for maximum span of 2800 mm. You then have to install an extra post in the middle for support.
The maximum bending (1/300) in the middle with a load is 3000/300 = 10 mm. Less if unloaded.
The maximum deliverable length of the gutter profiles is 7 metre.



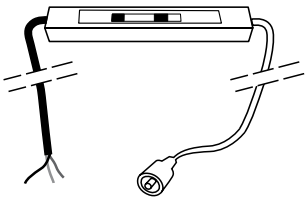
Specific installation tips for LED lighting

All work on electrical parts must be performed by a professional electrician according to the local rules and regulations for electrical systems.

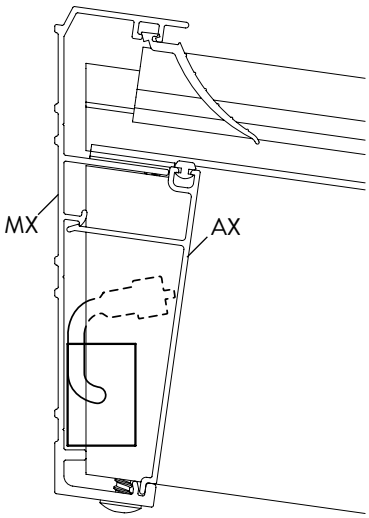
ClimaLED spots: see separate installation instructions

Installation of the ClimaLED light strip on the gutter GX:
Follow the instructions below during the installation and connection to the electrical system.

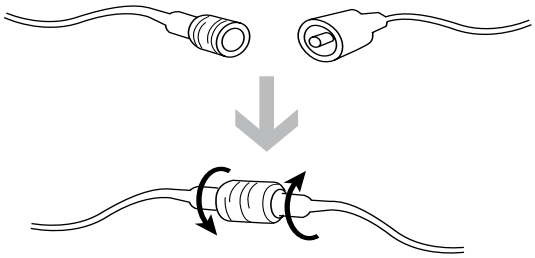
Transformer:
Foresee 1 transformer per LED strip of maximum 7 meters. Pull the extenstion cable (6 m) through the lateral rafter of the wall profile to the gutter.



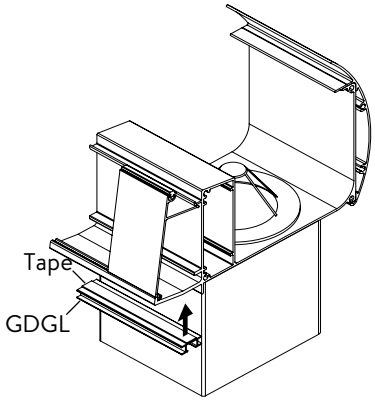
The transformer is placed in the wall profile, for which there is some space between the wall profile MX and the spacer AX.



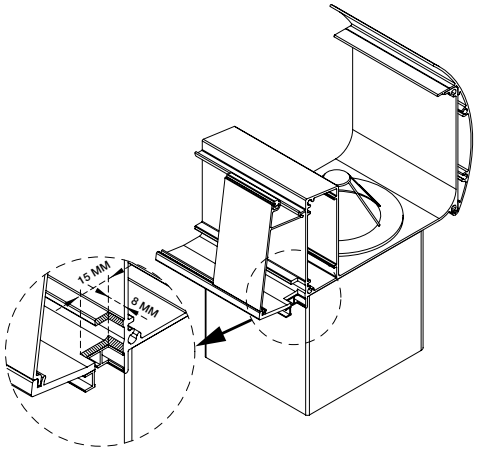
Chip connection:
Connect the LED chip to the transformer chip (IP44).



Mounting of the LED profile and the LED strip:



The GDGL profile is taped against the gutter GX with the supplied double-sided adhesive tape.



The LED strip is slid into the profile. Foresee a recess as indicated for the cable opening. A chip for the connection to the transformer is located at the end of the LED strip. An additional 6-metre cable is also included to ensure the transformer can be installed in an accessible location.

Glazing thickness table

Thickness	CLSB & CLST	CL16	C2CX	Stop profile
7 mm	+ (CY10) °ZSB	+	+ (CY10) °	S16X
8 mm	++ (CY10) °ZSB	**++**	**++ (CY10)**	**S16X**
9 mm	++ (CY10) °ZSB	**++**	+ (CY10) °	S16X
10 mm		**++**		S16X
11 mm		**++**		S16X
12 mm		+ °ZSG		S16X
13 mm		+ °ZSG	+	S16X
14 mm		+ °ZSG	+	S16X
15 mm	++ °ZSB	+ °ZSG	+	S16X
16 mm	**++ °ZSB**	**++**	**++**	**S16X**

Key	
++	ideal solution
+	good solution
°	screw
CY10	use CY10 on both sides of the DX
ZSB	inox screw self-drilling 5,5 x 32 mm TX25
ZSG	lacquered inox screw self-drilling 5,5 x 32 mm TX25

ONLY USE ORIGINAL PARTS DELIVERED BY SKYLUX. EVERY GUARANTEE IS CANCELLED IF NON-ORIGINAL PARTS ARE USED.

SKYLUX® 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

SKYLUX®
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