



Installation Guide

Simplicity 35

Tools Required

Below is a list of tools that you will require to install your the Simplicity 35 Canopy or Carport.

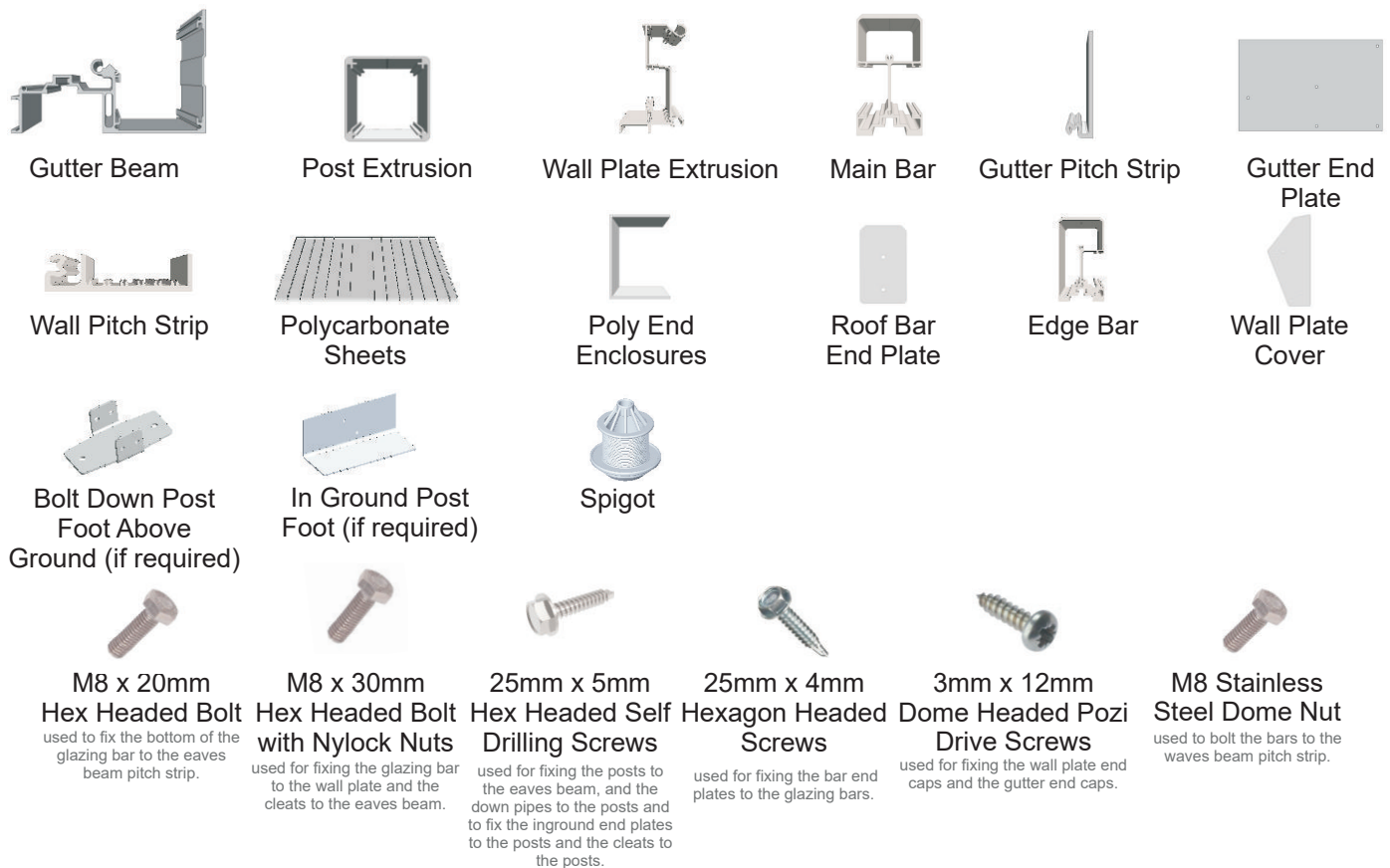


Materials **NOT** supplied with your system:

- Wall Plate Fixings
- Bolt Down Post Fixings
- Concrete or Material for 'making good'
- Lead Flashing
- Patination Oil
- Electrical Cable for LED Lighting connection
- Cleaning Materials

Parts Supplied

Below is a list of the parts supplied with your new Simplicity Canopy. Please check that all parts are present before.



*Please refer to your CAD drawing for each individual order as this will show the roof bar spacing as per your order. This installation guide is generic and the centre's spacing is given as a guide example only.

Preliminary Stages and Planning

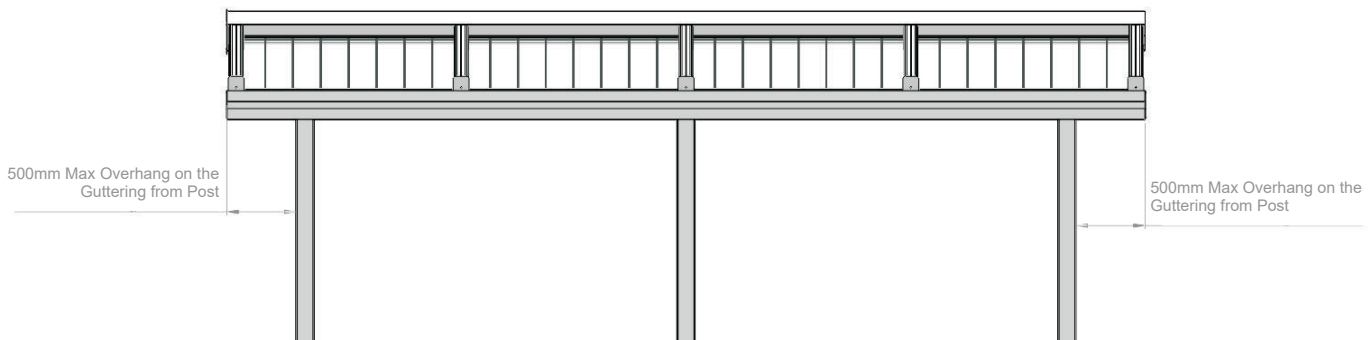
Before starting your install please check all components for quantity and damage.

Below is a Roof Span chart which you MUST refer to in order to establish the maximum centre to centre dimensions of your roof bars and posts.

SPAN CHART	Up to 3.5m Projection	Up to & Including 4.5m Projection	Up to & Including 5.3m Projection	Up to & Including 6m Projection
System 35	1m Roof Spacing's	1m Roof Spacing's	700mm Roof Spacing's	500mm Roof Spacing's

POST SPACINGS	Up to & Including 3.5m Projection	Up to & Including 4m Projection	4.1m - 6m Projection
System 35	3.5m Post Spacing's	3.5m Post Spacing's	3m Post Spacing's

PLEASE NOTE – A MAXIMUM OF 500MM OVERHANG ON THE GUTTER IS ALLOWED



Before starting your installation please check all components for damage and ensure the parts are provided in the correct quantity.

You are now ready to start installing the structure, please turn the page and follow steps 1 - 23 within this guide

Please check the sheet size before drilling your wall plates sheets as all sheets come in different sizes depending on the width of your canopy.

Lighting (if required)

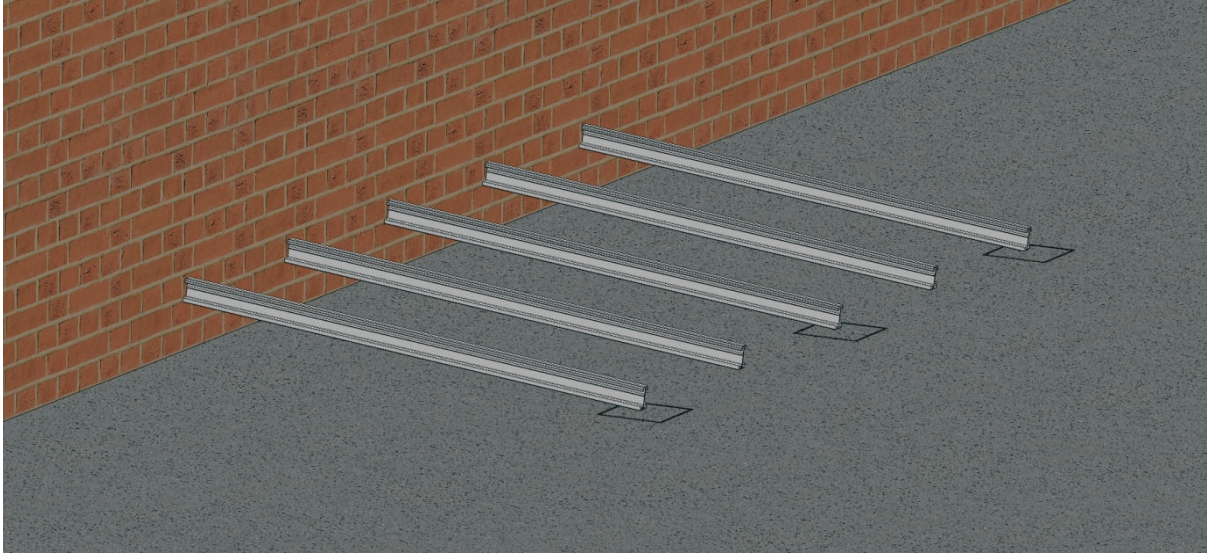
The lighting consists of an aluminium extrusion that can fit to either the bottom of the wall plate, or the back of the eaves beam. When installing lighting please consider cable exits and cable entry to the light channel. The lighting also comes with an electrical capacitor for each 10m of light and an optional external grade plastic box to house the capacitors if the installation requires that they be mounted outside.

STEP 1

Foundation Hole Positions for Posts

Establish the height of the canopy/carport at the back (wall edge) and the height of the canopy at the front. The height at the front must be above 2.1m to meet the minimum legal head height requirement.

Once you have established your height at the front and back, deduct the height at the front from the height at the back to give you "The Fall" (x). Measure distance 'x' up the wall and position your roof bar at this height on the wall. Let the other end touch the ground and where that touches will be the centre of your hole for the foundation.



IMPORTANT: Use Roofing Square to ensure the bar used is held square to the wall.

STEP 2

Digging of Holes

Please refer to the chart below to determine the size of the holes that need to be dug.

Please note the following are for guidance only and will need to be verified by a structural engineer.

Up to 4M Projection (Depending on wind loadings)	Over 4M Projection (Depending on wind loading)
300mm x 300mm x 600mm deep	600mm x 600mm x 600mm deep

Ensure where the holes are dug that the base of the holes is level with each other.

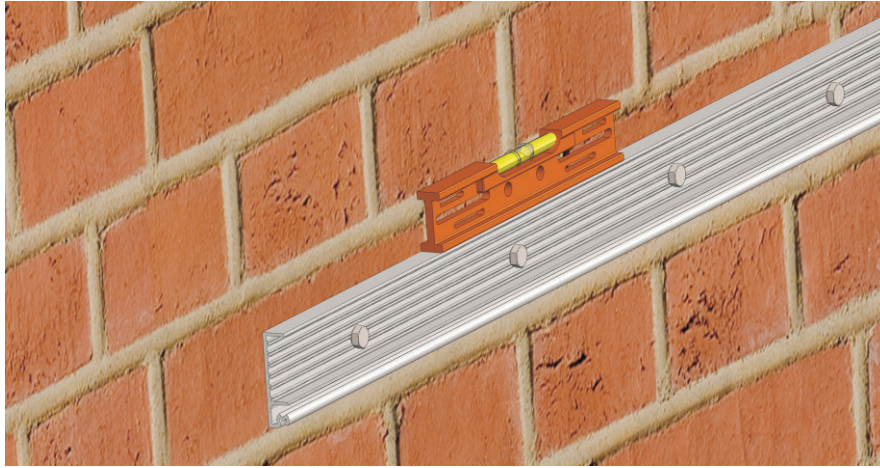


STEP 3

Fitting of Pitching Strip to the Wall

Attach the pitching strip to the wall using suitable fixings (not supplied). Recommended spacing for these fixings is 200mm.

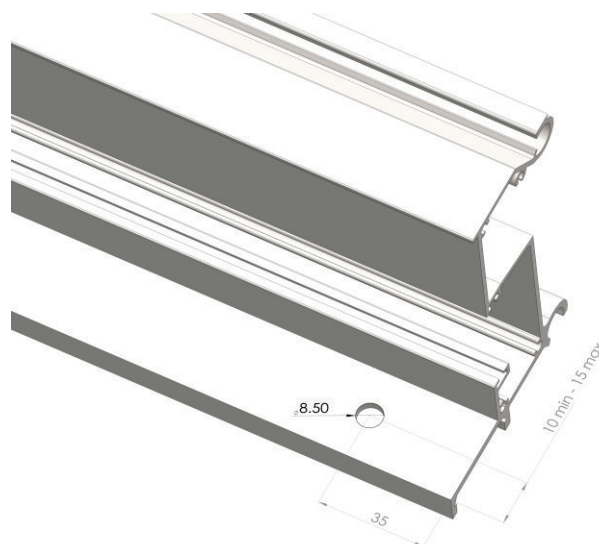
You must ensure the pitching strip is not twisted or bowed as this will prevent the wall plate from being fitted. Use a spirit level to make sure the pitching strip is fitted level.



STEP 4

Preparation of the Wall Plate

Measure 35mm in from one end of the Wall plate and mark before you drill. Ensure the 8.5mm hole is no less than 10mm and no more than 15mm from the outside edge. Once this is done drill an 8.5mm hole.



REPEAT THIS PROCESS AT THE OTHER END OF THE WALL PLATE

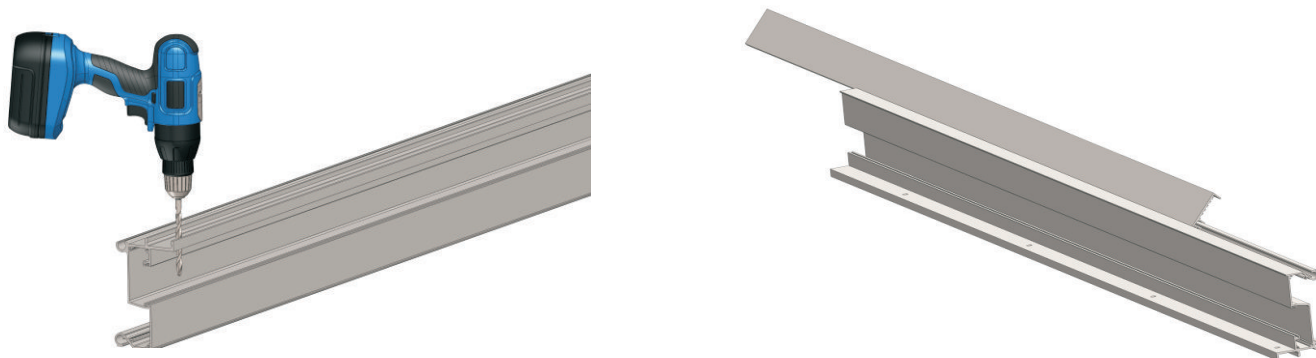
You now need to calculate your bar spacing before drilling your next hole. Please refer to your CAD drawing for centre to centre dimensions.

Please check the sheet size before drilling your wall plate as all sheets come in different sizes depending on the width of your canopy.

Up to 4.5M Projection	4.5M Projection to 5.3M Projection	5.3M Projection to 6M Projection
1m Glazing Bar Spacing	700mm Glazing Bar Spacing	500mm Glazing Bar Spacing

Then measure from the centre of your first 8.5mm hole and apply the centre to centre dimensions from your CAD drawing, and drill a 8.5mm hole and ensure you follow the spacing rule: **No less than 10mm and no more than 15mm from the outside edge**

Repeat the above process all the way along your wall plate. Slide flashing strip into wall plate.



STEP 5

Drilling of Holes in Flashing Strip on the Gutter Section

Measure 35mm from the inside of the end of the flashing strip then drill an 8.5mm hole in the centre of this section. Repeat this process at the other end.

Then refer to your CAD drawing for the centre to centre dimensions and drill the rest of the 8.5mm holes to match the wall plate in step 4.

Repeat the above process all the way along your flashing strip section.

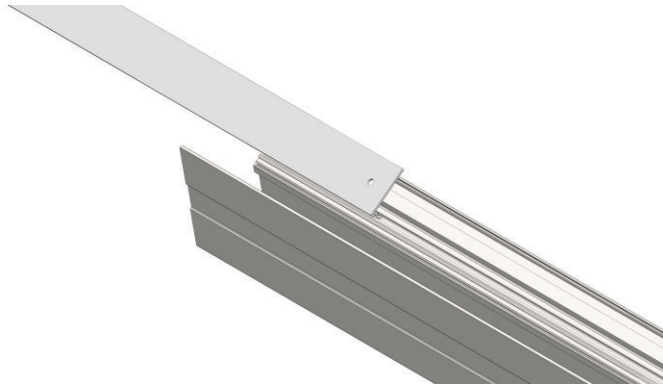


STEP 6

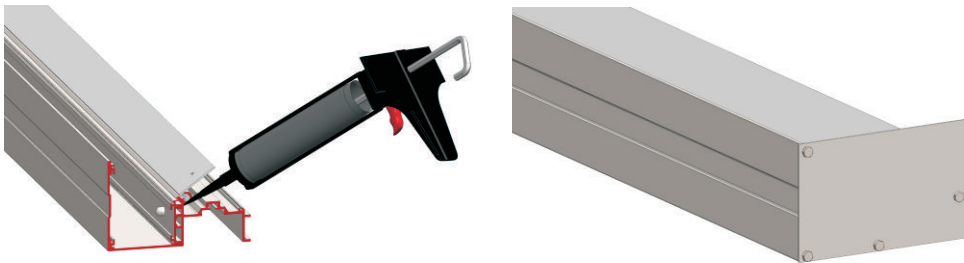
Preparation of the Gutter Section

If Gutter section needs to be joined first see Step 22 for this process

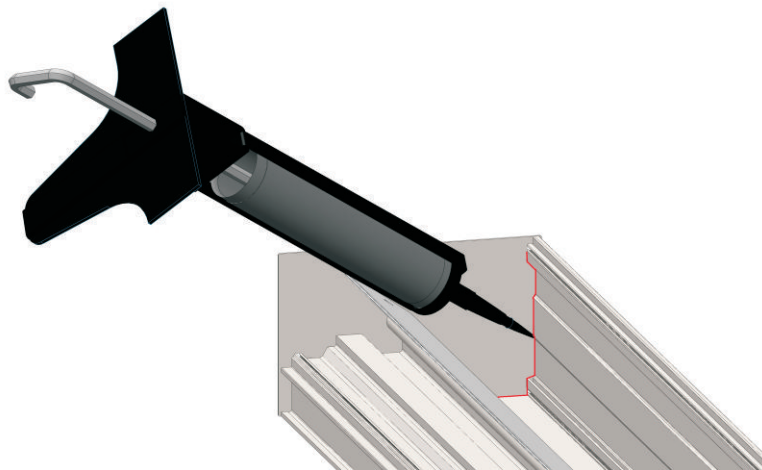
Slide the flashing strip along the full length of the gutter section



Apply Soudaflex around the outside profile on the end of the gutter section. Secure the end plate with 4No 4mmx 40mm domed headed self drilling screws.



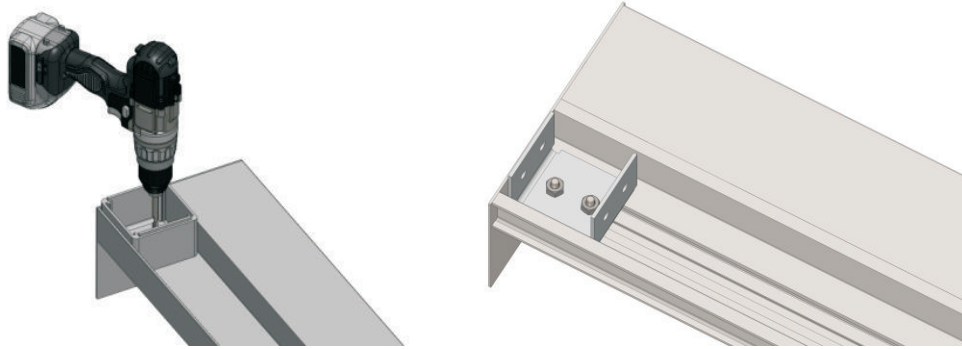
Apply a continuous bead of Soudaflex around the entire inside profile and ensure the 2 screw ports are filled with Soudaflex. Repeat this process at the other end.



STEP 7

Fitting of Cleats to Gutter Section

Using the Jig made from a 20mm off cut of post, place the jig in the corner of the gutter section (if no overhang) and drill one 8.5mm hole. Remove the jig. Using **Bolt (M8 x 30mm), Washer (M8) and Nut (M8)** secure post cleat to gutter section. Drill 2nd 13mm hole through post cleat and secure using the same nut, washer and bolt.



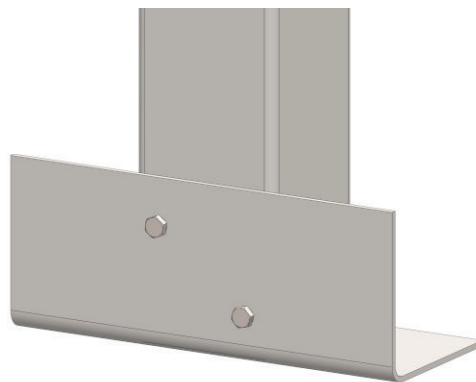
Repeat this process at the other end.

If other posts are to be fitted then repeat this process of fitting the post cleat to the gutter section in the correct positions that you have calculated for your hole positions.

STEP 8

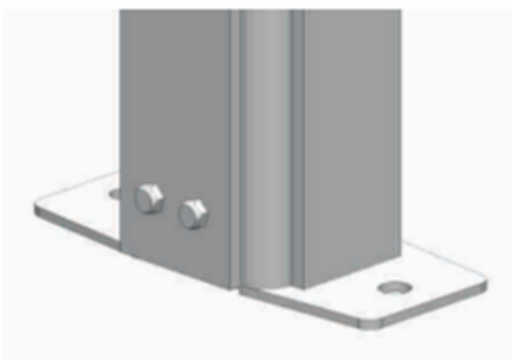
Fitting of Post Feet to Post

Centralise the post foot to the post and attached using **2 No 5.5mm x 25mm self drilling screws**



STEP 8a

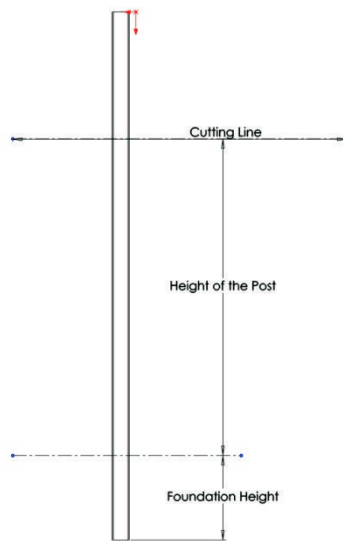
Centralise the post foot to the post and attach using 2x No. 12x 1 1/4" self drill screws **(Note the post foot is only suitable for surface mounting the posts. If your posts need to be concreted into the ground please follow steps above)**



STEP 9:

Cutting the Posts

Measure the height of the canopy/carport at the front and add to this dimension the depth of post that will be going into the ground. The total of this is the length at which your posts need to be cut.



STEP 10

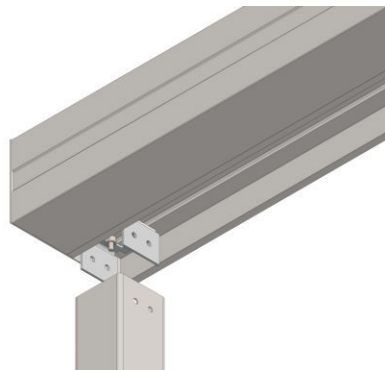
Drill the Posts

Drill each post using a 6mm drill bit at the opposite end to the post foot as follows; mark 25mm down and 25mm from the side on both sides using a pencil and drill the two holes, repeat on the opposite side, ensure that the post foot is facing the desired orientation to suit your hole.

STEP 11

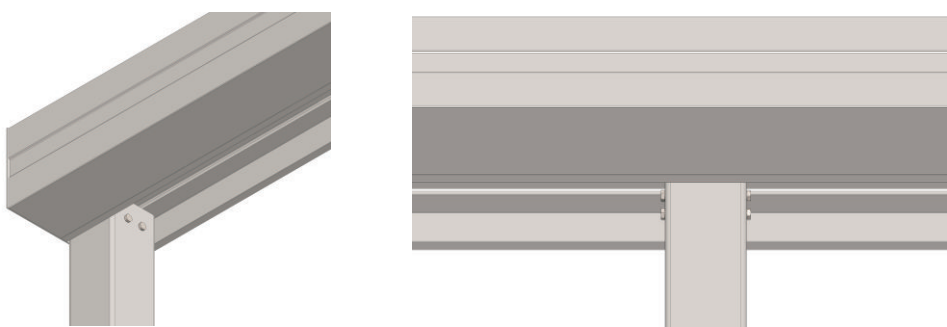
Fitting of Post to Gutter Section

Slide the post over the fixed cleat on the gutter section and ensure the post is touching the underside of the gutter beam i.e. no gap.



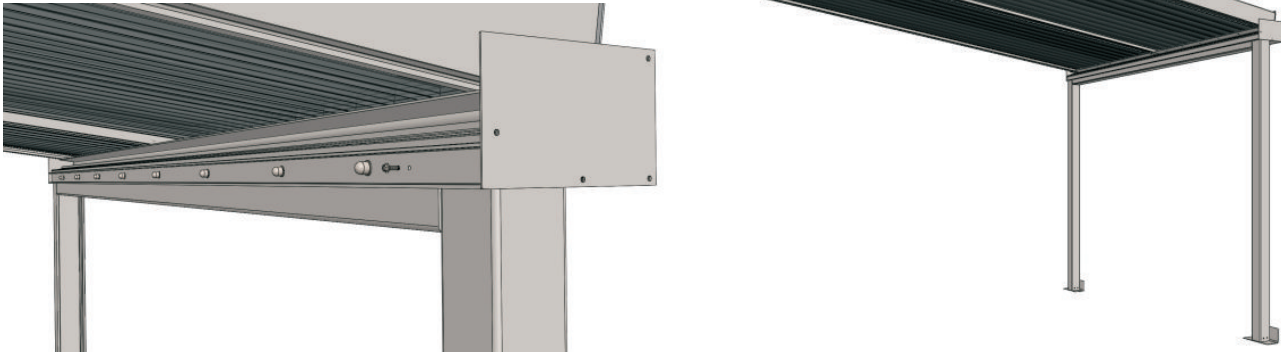
If the post is positioned at the end i.e. no overhang, then using **2 No 5.5mm x 25mm self drilling screws** fix through the inside of the post into the post cleat.

If it is an intermediate post or a post with an overhang then secure in place using **4 No 5.5mm x 25mm self drilling screws** fitting 2 screw either side of the post, see illustration:



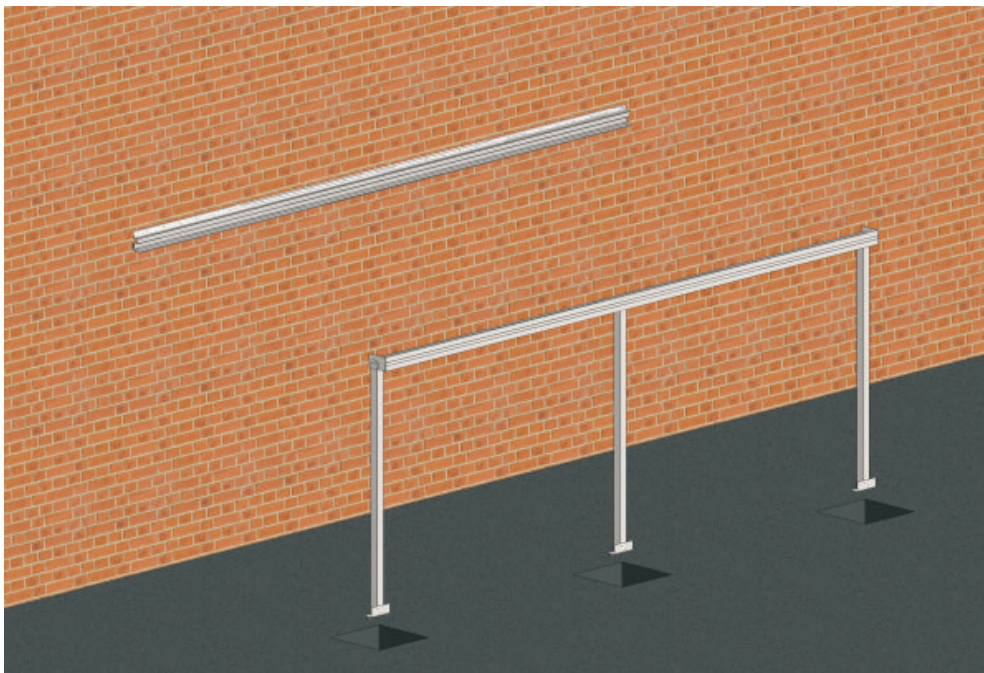
STEP 11A

Please note you will be required to brace the front gutter if the projection of the structure exceeds 5.4m, this is achieved by adding a gutter support section (same as post section) along the eave between the posts inside of the underside of the gutter. This is self drilled into the post through the back of the gutter and fixings are capped off using white caps provided.



STEP 12 Stand Post & Gutter Beam Up

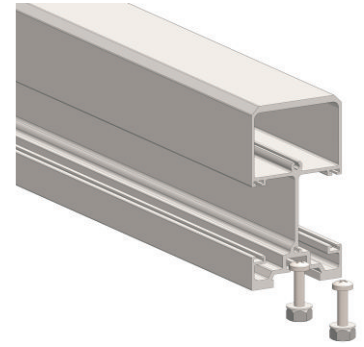
Using the excavated holes position each of the post into the centre of the hole and lean the whole frame forward so that the back of the posts leans against the front of the hole - see diagram:



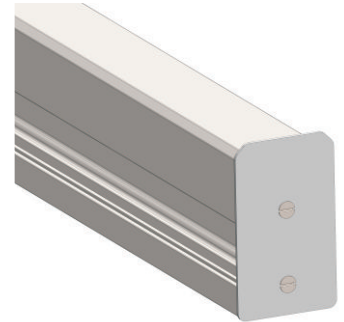
STEP 13

Preparing Glazing Bars for Glazing

Slide bolt A with nut B and washer C into the underside channel of the main bar.



Fit the front plate to the front of the bar using 2 x bolts. Ensure that 2 serrated washers for each screw are located between the bar and the back plate so that there is a gap of about 2 to 3mm between the bar and the front plate.



Repeat this process for all Main Bars

STEP 14

Fitting of Wall Plate

Now fit the wall plate to the pitching strip already located on the wall.

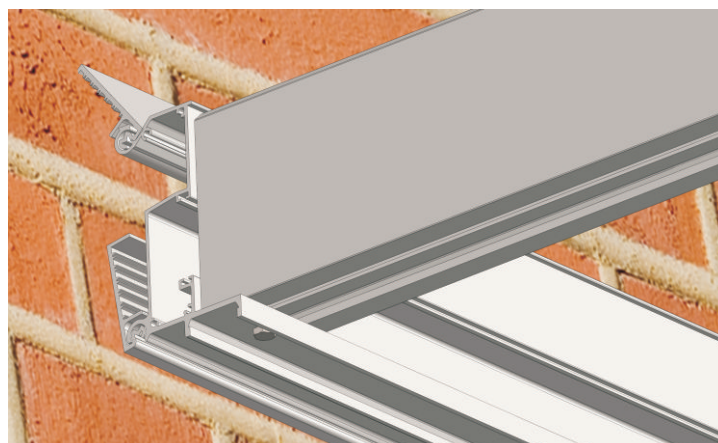


STEP 15

Fitting of Glazing Bars

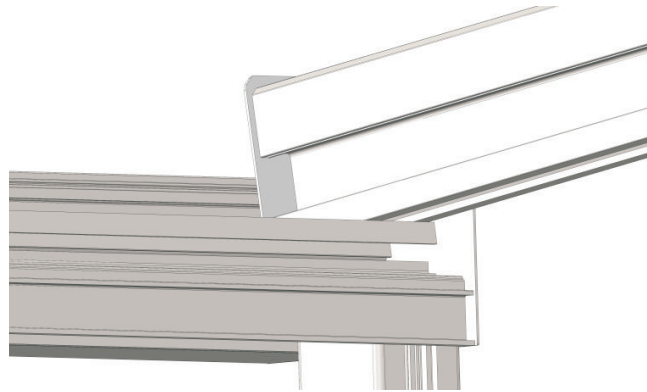
Starting at ONE end of the wall plate using 1 No bolt A (M8 x 16mm) with nut B (Stainless steel domed nut) and washer C (M8 serrated washer) fix one end of the End glazing bars to the Wall Beam. DO NOT USE the Nut, Bolt and Washer that is already located within the Glazing Bar channel. Tighten up using a 13mm spanner. Important: you must ensure that the serrated washer is sandwiched between the glazing bar and the wall plate.

IMPORTANT: The serrated washer B must be clamped between the wall plate and the Bar, this locks the two together.

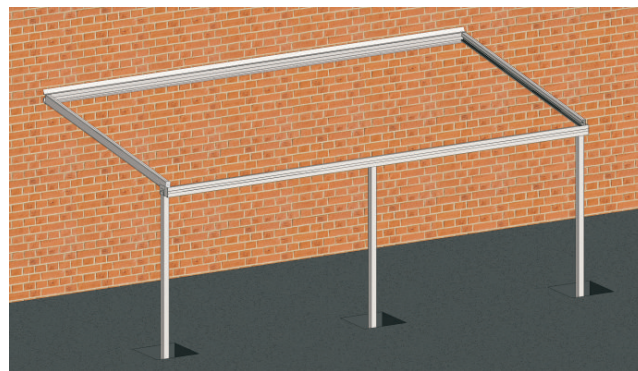


Using the Nut, Bolt and Washer already located within the channel; locate these into the pre drilled hole in the flashing strip ensuring that the cerated washer is clamped between the bar and the flashing strip.

Please allow at least 20mm overhang into the gutter to allow the water to drip into the gutter but not more than 30mm.



Repeat this process at the other end of the Canopy/Carport.



DO NOT FIT ANY MORE GLAZING BARS AT THIS STAGE.

STEP 16

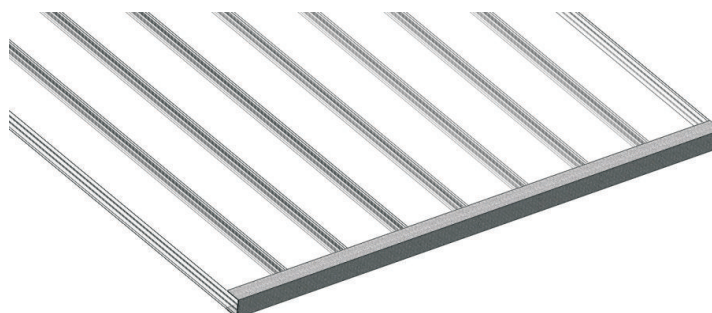
Sealing Wall Plate against the Wall

If flashing is required or silicone to seal the wall plate against the wall it needs to be done prior to the polycarbonate sheets being fitted.

STEP 17

Polycarbonate Sheets

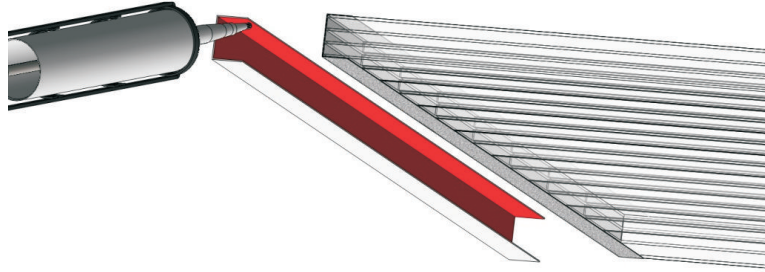
The polycarbonate sheet comes with a protective film fitted to both sides. This needs to be removed prior to fitting. The film with the writing on is the TOP face due to it's coextruded UV coating and therefore needs to be fitted facing the sunlight. The Polycarbonate sheet also has 1 foiled edge which must be fitted at the Gutter section end.



STEP 18

Fitting the Polysheet Capping

Cut the polysheet capping to the width of your polycarbonate sheet and attach using Soudel Crystal Clear Bonding Silicone agent. See product reference. Apply a bead of this silicone along the inside face of the capping.



The capping can then be knocked onto the sheet using a white rubber mallet.

The Polysheet capping is only fitted to the end of the polycarbonate sheet that will be located at the gutter end. This edge should have the silver foil fitted.

Continue this process across all polycarbonate sheets.

STEP 19

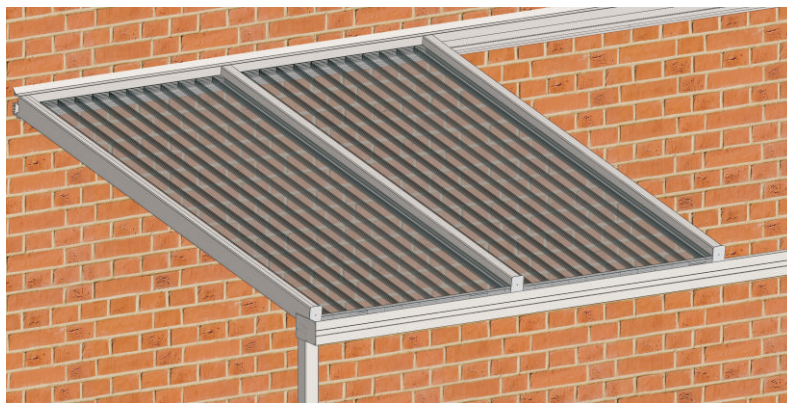
Glazing the Canopy/Carport

If your Canopy/Carport is fitted against a wall at one end you must start the glazing process from the wall end and work progressively across to the open end.

Install you next glazing bar, next to one of the end bars you have already fitted. Fix and secure the glazing bar onto the wall plate, as previous instruction. **DO NOT** fix to the flashing strip at the gutter end at this point.



Place the polycarbonate sheet into the fully fixed glazing bar and secure firmly into position. Push the 2nd glazing bar firmly over the polycarbonate sheet and locate with the 2 channels.



Make sure the polysheet capping is positioned between the main bar and the front cap. See illustration:



Now secure your glazing bar to the flashing strip as per previous instruction.

Continue this process until your canopy/carport is fully glazed.

If your canopy/carport is fitted between 2 buildings then the last sheet needs to be installed with the final glazing bar attached to the side of the sheet prior to fitting.

STEP 20

Make Sure your Canopy/Carport is Square

To ensure the carport is square, using the roofing square, attach one edge of the square to the wall plate and the other edge will need to continuously touch the other edge of the square, this will ensure the gutter beam is perpendicular to the wall plate.

STEP 20a

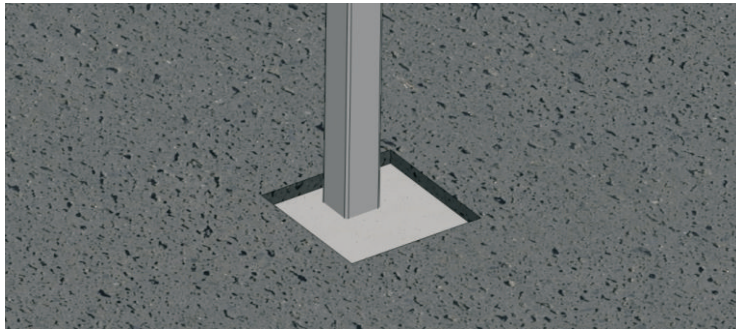
Ensuring the Carport /Canopy is level

Using a spirit level ensure the front beam is completely level and your posts are plumb.

STEP 21

Concrete in the Posts

Using the correct aggregate, apply to the excavated holes and make good.

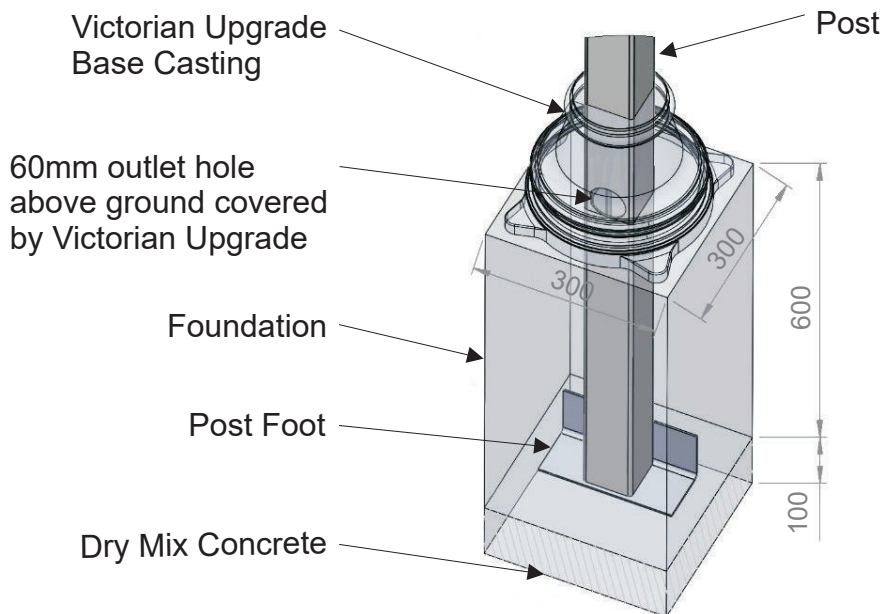


STEP 21a

Victorian Upgrade Drainage System

If you are not installing the Victorian Upgrade, please skip this step and move onto step 21b

Drill a hole 45mm diameter using a hole saw in the gutter section where your downpipe is to be located, Insert the outlet into the hole and tighten. Push the downpipe in to the gutter section below the hole over the outlet. Using the downpipe clips provided secure to one of the posts or the wall depending on the position of your outlet.



Note:

1. You must ensure the bottom of the hole has at least 100mm of dry mix concrete under the post to prevent subsidence of the post, and that it is compacted hard.
2. Ensure as you fill the 300 x 300 x 600 foundation, that you fill the centre of the post level to the bottom of the 60mm hole to prevent rainwater going into the bottom of the post.
3. Ensure this is done when it is not raining.
4. We recommend that when installing above ground outlets, you perform this procedure on every post to minimise puddles.

Disclaimer: We cannot be held liable for puddles of excess rainwater around the column base.

STEP 21b

Standard Drainage System

Drill a hole 45mm diameter in the gutter section where your downpipe is to be located. Push the downpipe spigot into the gutter section below the hole and above the hole and tighten. Using the downpipe clips provided secure to one of the posts.

STEP 22

Fitting of Down Pipes

Fitting of Down Pipes Drill a 45mm diameter hole in the gutter section where your downpipe is to be located. Push the downpipe spigot into the gutter section below and above the hole and tighten. Using the downpipe clips provided secure to one of the posts. Using a 45mm hole cutter drill a hole in the lower part of the gutter section. Insert spigot into hole and tighten up.

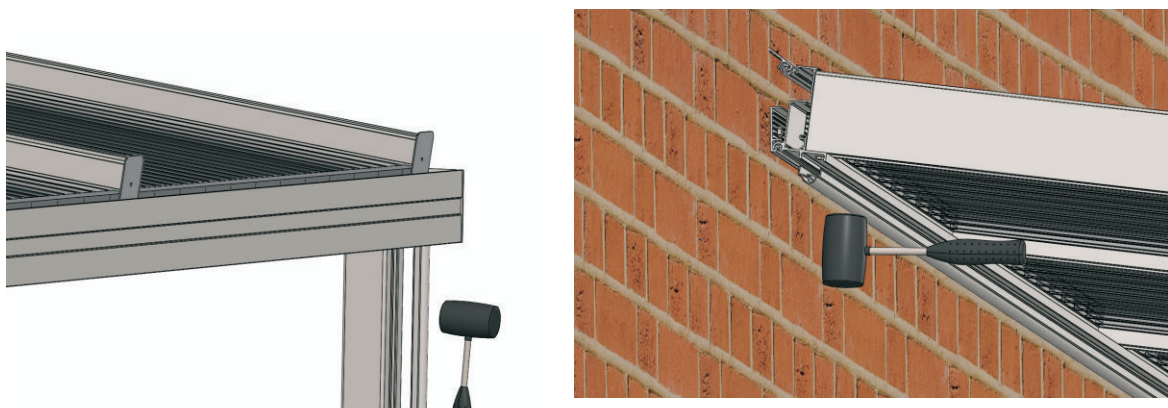


Locate your downpipe over the spigot and clamp to the post using downpipe clips and spacer.

STEP 22a

Fitting the aluminum cover trims

Now install the aluminium cover trims to the structure, these are installed onto the underside of the wall plate to cover the main bar bolts and are installed on to all posts that do not have a down pipe. There is no need to install these on to the back of the eaves beam gutter as there are no fixings to cover.



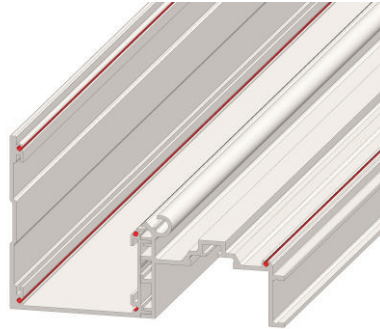
Step 23

Joining Gutter Sections

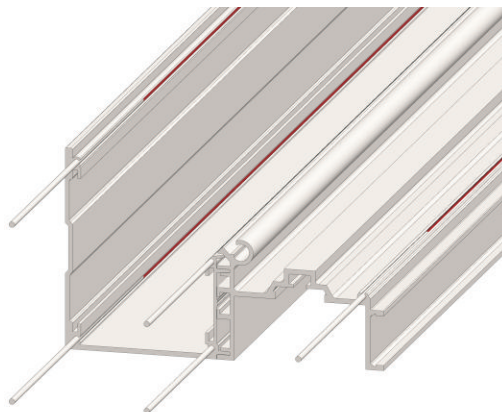
You will need the following to join every Eaves Beam:

- 4No Stainless steel joining rods 400mm long
- 4No flat aluminium joining plates 400mm long but different widths
- 1No tubes of sikaflex the same colour as your canopy if possible
- 1No roll of masking tape
- 4No 25mm x 5mm self drillers
- 1No mastic gun
- 1No drill with 8mm self driller attachment
- Industrial wipes
- Sikaflex 11FC cleaner
- Roll of industrial tissue paper

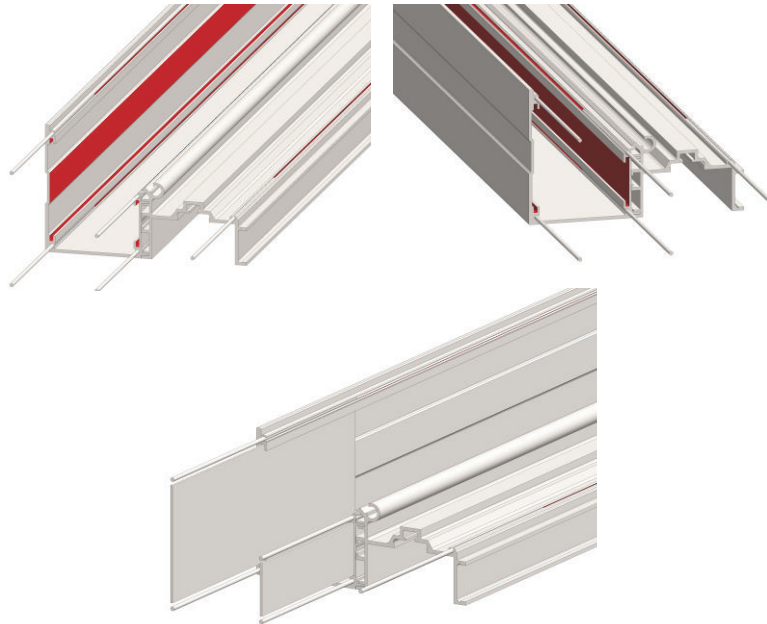
1. Make sure you only use **Sudaflex**; normal silicon sealer will not do.
2. Mask up using the masking tape around both edges of the gutter beam and then apply a generous amount of sealer into the 4 screw channels in the eaves beam.



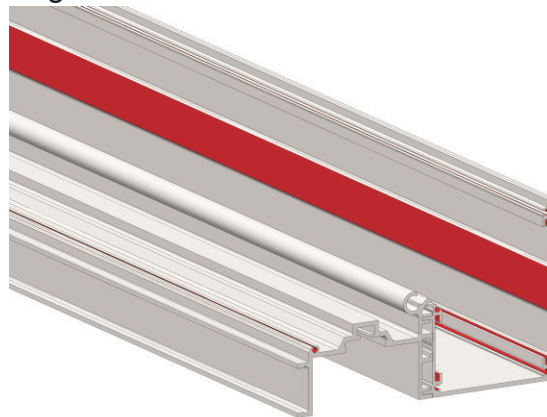
3. Insert the 4 stainless steel rods supplied into the screw channels, once inserted half way, use a spatula to push the Sudaflex sealer into the gaps around the rods.



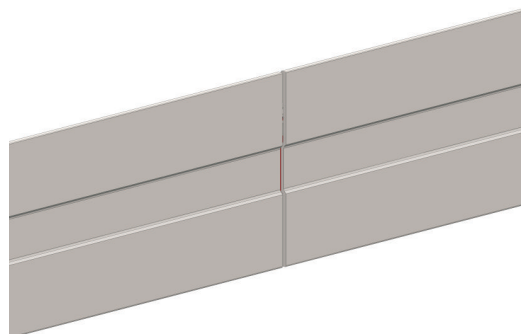
4. Now apply a liberal amount of Sudaflex to both sides of the eaves beam on the vertical sections to enable you to bond the 2 vertical joining plates.



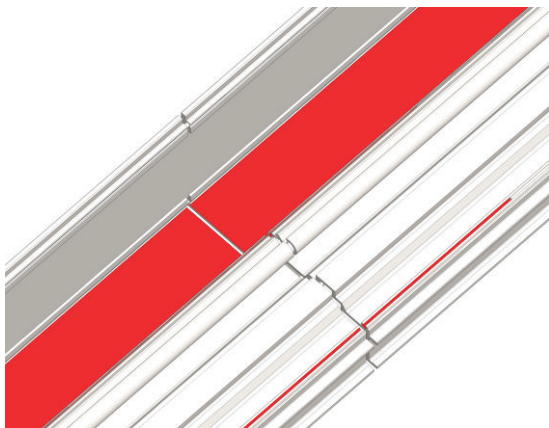
5. Flatten any excess Sudaflex with the spatula and apply a generous amount of sealer around every edge of the both plates.
6. Then insert the swivel pitch across the joint to ensure alignment.
7. You are now ready to marry the two eaves beams together but you must ensure they are flat and level to each other.
8. Then apply ample amounts of Sudaflex across all corresponding areas of the opposite eaves beam as shown in the diagram overleaf.



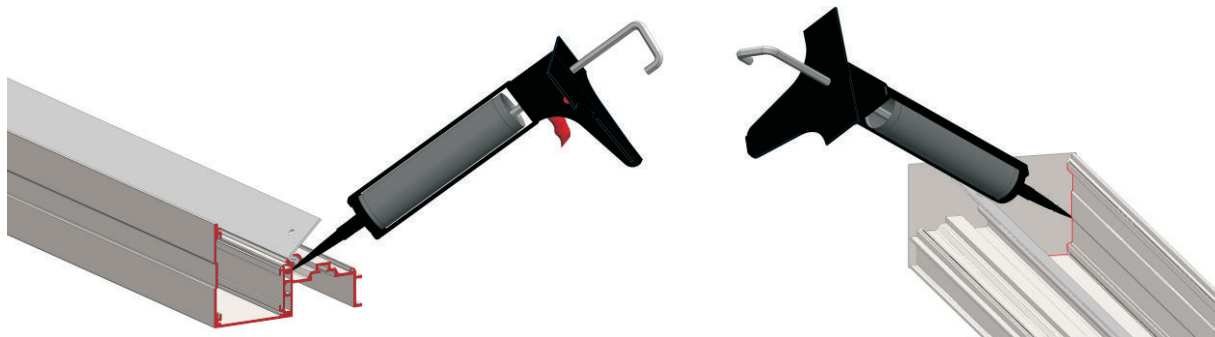
9. Once you have married the two beams together **you must leave at least a 3mm gap between the two but no greater than 5mm**



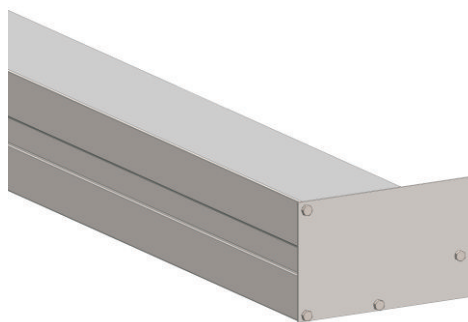
10. After about 15 to 20 mins stand the eaves beam with legs attached up and attach the bars as described in the above procedure.
11. Once your canopy is glazed and your legs are square and your eaves beam is level up and down and left and right and front to back ensure your gutter is dry and the surface temperature is at least 4 degrees. If it is winter you may need to use a heat gun.
12. Then you will need to apply the final amount of Sudaflex into the bottom of the eaves beam so that you can locate your final horizontal plate.



13. Make sure that the plate is sitting flat.
14. Then apply a generous amount around the edge of the flat plate.



15. Finally apply the joining plate cover using 4 No 5.5mm x 25mm self drilling screws and caps



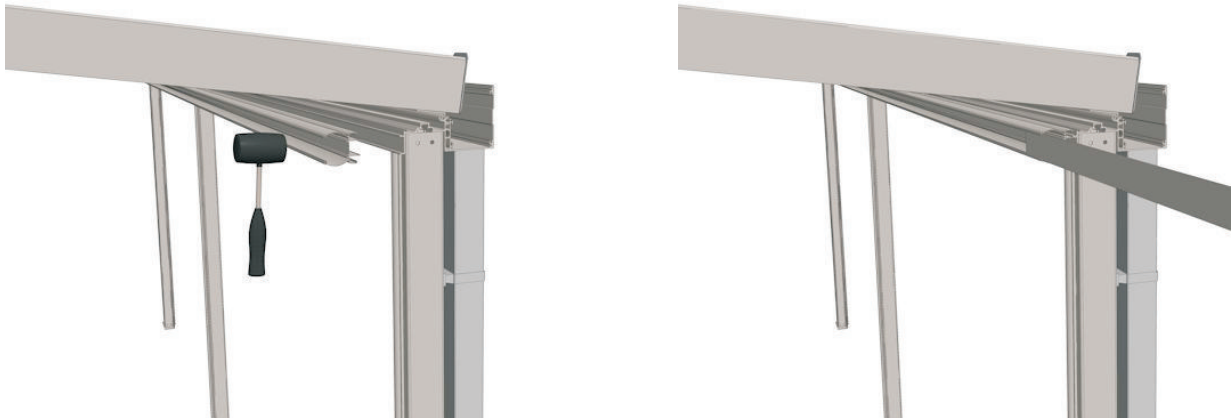
Step 24

Lighting installation (if required)

Inside of the light channel you will find a 12 Volt LED self-adhesive strip light, to access this just unscrew the aluminium end cap and slide out the polycarbonate lenses. You will need to connect the black and red cables to some compatible flex cable that is small enough to run through the trims on the alfresco, or through the wall plate and the main bars.

Attaching lighting to the Simplicity 35 eaves beam:

Before you attached the light channel please consider the cable route and ensure you have enough cable to run under the main bar and out of the wall plate to the capacitor. If the hole in the light channel is not already drilled, then you need to drill up through the top of the light channel close to the back so that the cable cannot be seen from the ground using a 6mm drill bit, then crimp the cables that exit the light channel with the additional cable required for the cable run. Once you have passed the cables through the hole simply snap the light into the channels along the back of the eaves beam or using a rubber mallet tap it into the light channel as below image. If you struggle consider using a large "G" clamp to help. Then run the cables up the main bar and out of the wall plate at the desired location. Then cover the cables using the aluminium trims supplied.



Attaching lighting to the Simplicity 35 wall plate:

To do this drill a hole through the back of the light channel (facing the wall) in the desired location for cable exit using a 6mm drill bit, crimp the cables to the red and black LED cables exiting the light channel and feed the extended cables through the hole and run them into the building or the plastic external box supplied and connect them to the capacitor. Then slide the polycarbonate lens back into the light and screw the end cap back on to the light channel. The capacitor will then need to be powered to the mains either via a fused spur or a plug socket as per the specification detailed on the lighting capacitor.

