MADE IN THE UK

SCAN ME

Simplicity Free

Installation Guide

Please check off all your parts against the CAD drawing you have been supplied. Check for both quality and quantity. Any discrepancies or quality issues need to be reported within 24 hours from receipt of delivery.

Profiles

Ring Beam

Gutter

Bolster Bar Top Cap

Bolster Bar

Post Bracket

Post

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Profiles contd.

Post Foot

F Section

Post and Ring Beam Trim

Bar End Plate

Wall Plate Top

L Bracket

Plastic Insert

T Bracket

Wall Plate Bottom

Ring Beam Straight Joiner

Ring Beam Corner Joiner

Ring Beam Corner Trim

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Profiles contd.

Downpipe

Gutter Spigot

90° Elbow

Joiner

Fixings - Nuts, Bolts, Self Drillers

Tube of Sikaflex

Pipe Snug

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Tools Required

Drill

10mm Drill & 3mm Drill Bits

Spirit Level

Lift x 2

13mm Spanner

Stanley Knife

Rubber Mallett

Mastic Gun

Socket Set

Step Ladders

Masonry Drill Bits

Digging Equipment

Chop saw

with aluminium blade, recommended 60 to 80 tooth

Masonry Drill

Impact Driver

8mm ratchet spanner

42mm Hole saw

YOU NEED YOUR CAD DRAWING AVAILABLE TO PROCEED WITH YOUR INSTALLATION

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Installation Instructions

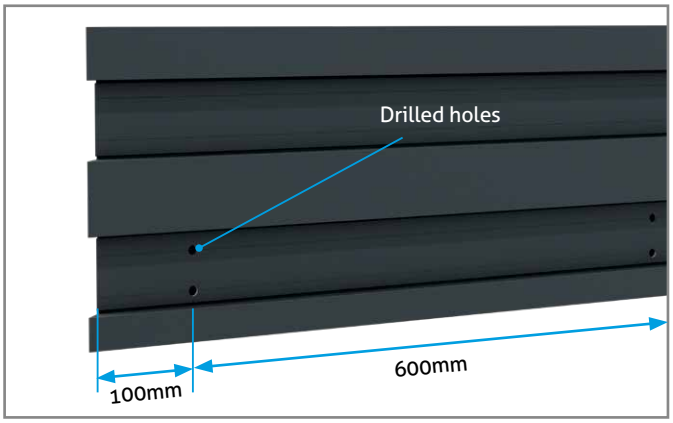
1. Ground works

We recommend 600x600x600mm C4 concrete pads be set into the ground with the Simplicity Free posts centred on the concrete pads with top of pads 50/100mm lower that the proposed FFL of the install area. Ensure all pads are the same height in order to keep the structure level.

2. Drilling the ring beam for the gutter

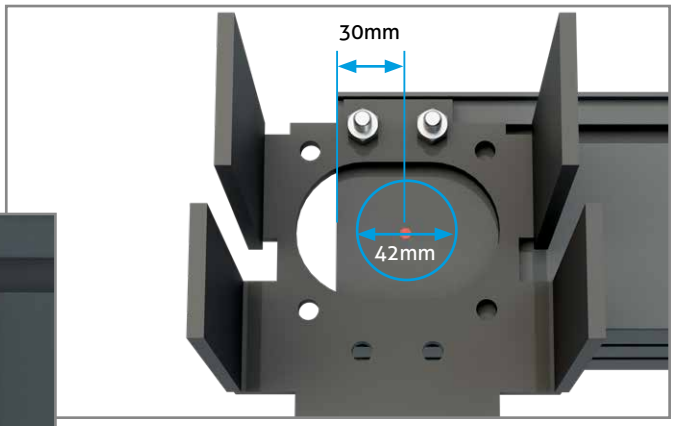
Drill 2 number 10mm diameter holes in the bottom ring beam channel through the two drill lines as shown.

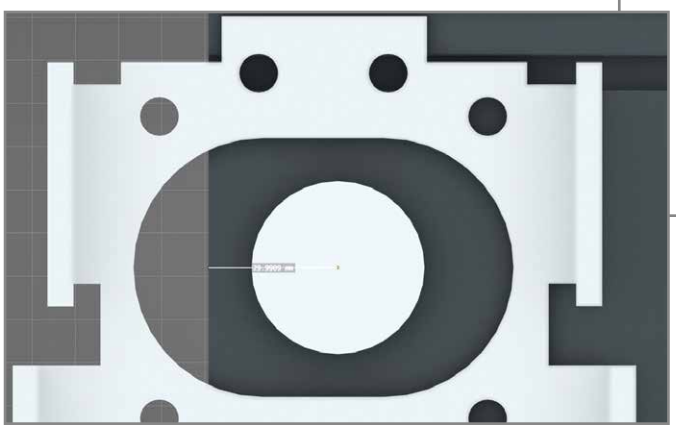
First connection is 100mm from the outside edge of the ring beam. This is to avoid clashing with the corner brackets. Then drill a pair of holes every 600mm with the final pair of holes being 100mm from the outside edge of the ring beam. Ensure the drill holes are 90° to the ring beam and straight. This will aid with the aligning and joining of the ring beam to the gutter.



3. Internal Downpipe Kit

Using the post bracket as a guide to ensure a first time fit drill 1 number 42mm diameter hole in the gutter with the centre of the hole 30mm from the end of the gutter.





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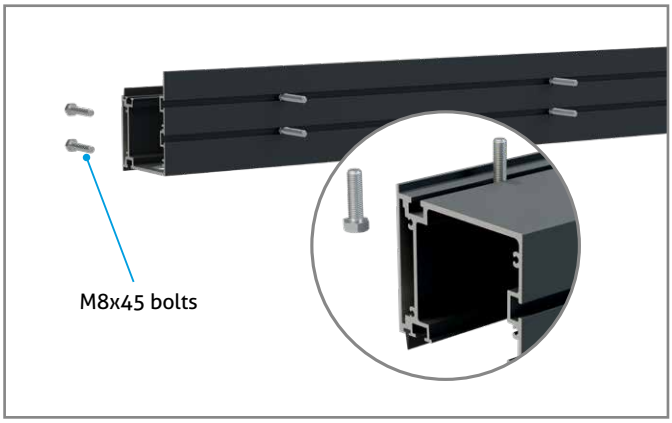
Installation Instructions

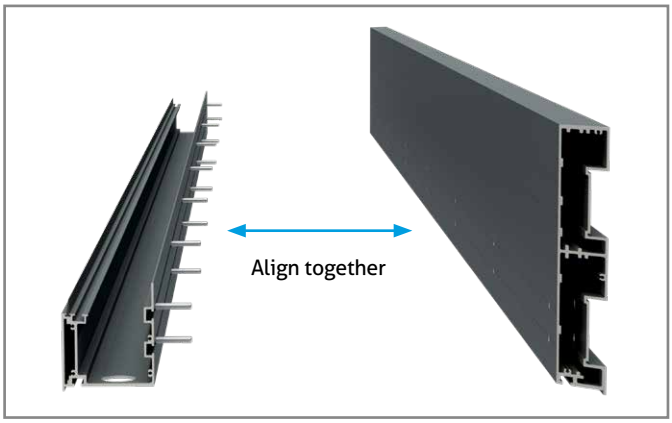
4. Preparing the gutter to mate with ring beam

You need to slide your M8x45 bolts into the 2 channels on the back of the gutter. Locate as many bolts into the channels as you have holes in the ring beam.



5. Align bolts to bolt holes

Align your M8x45mm bolts to your 10mm diameter bolt holes you drilled in **Step 2**.



6. Join the gutter to the ring beam

Join the gutter to the ring beam taking care to not to scratch the ring beam. Ensure all bolts are through all holes before moving on to the next step.

7. Secure the gutter to the ring beam

Using the M8 nyloc nuts, secure the gutter to the ring beam. Starting at either end and working towards the middle to ensure the 2 pieses do not separate. Finger tighten the nuts and align the edge of the gutter to the inside edge of the ring beam.

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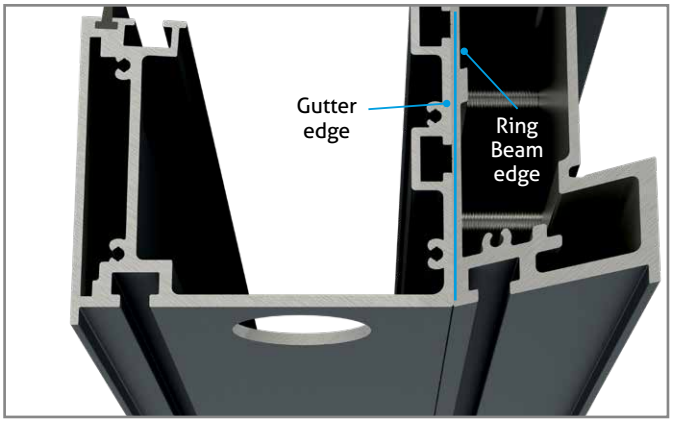
Installation Instructions

8. Final alignment and tighten down gutter to ring beam bolts

Ensure the end of the gutter is aligned with the inside edge of the ring beam. If this is not correct you will have issues fitting the ring beam sides. Finally, ensure the bottom of the gutter is level with the bottom of the ring beam so the post bracket will sit flat and level against the bottom of the ring beam and gutter.

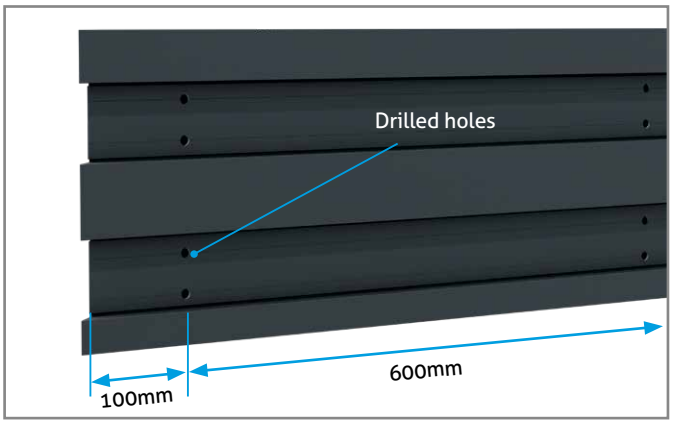
Now the gutter is in the correct position tighten down all bolts working from the outside inwards.



9. Drilling the ring beam for the wall plate

Drill 2 number 10mm diameter holes in the bottom and top ring beam channels along the upper and lower marker line along the upper and lower drill lines. Drill through the outer and inner layers of aluminium.

First connection is 100mm from the outside edge of the ring beam. This is to avoid clashing with the corner brackets. Then drill a pair of holes every 600mm with the final pair of holes being 100mm from the outside edge of the ring beam. Ensure the drill holes are 90° to the ring beam and straight. This will aid with the aligning and joining of the ring beam to the wall plate.



10. Assemble the wall plate

Join the 2 sections of the wall plate together ensuring that the bolt channels are on the same face.

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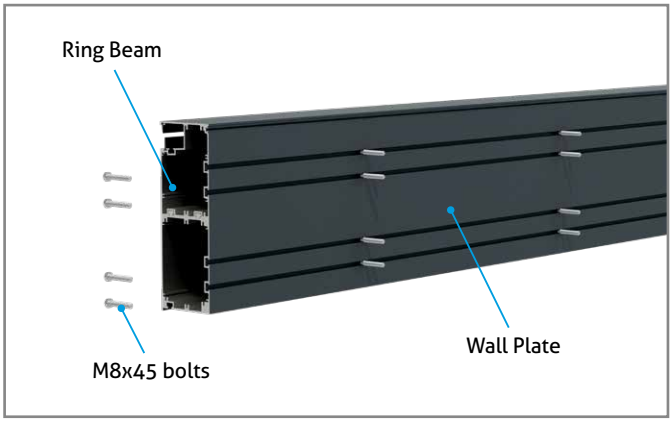
Installation Instructions

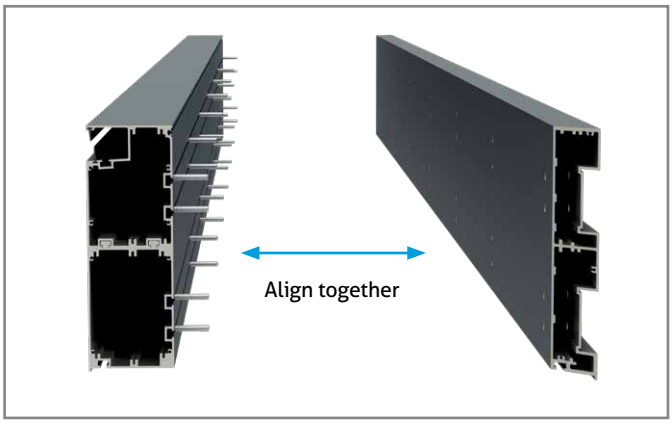
11. Preparing the wall plate to mate with ring beam

You need to slide your M8x45 bolts into the 4 channels on the back of the wall plate. Locate as many bolts into the channels as you have holes in the ring beam.



12. Align bolts to bolt holes

Align your M8x45mm bolts to your 10mm diameter bolt holes you drilled in **Step 8**.

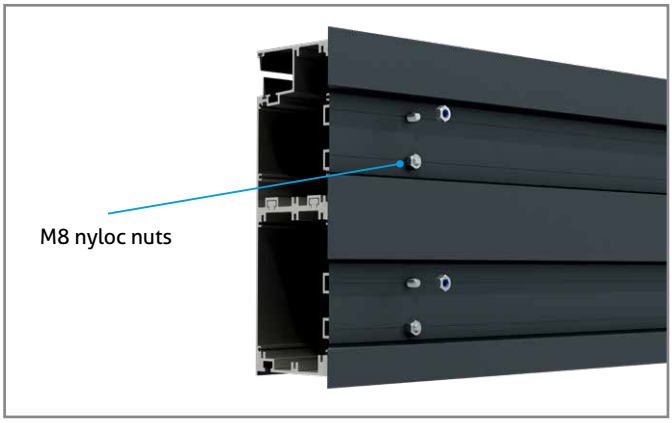


13. Join the wall plate to the ring beam

Join the wall plate to the ring beam taking care to not to scratch the ring beam. Ensure all bolts are through all holes before moving on to the next step.

14. Secure the wall plate to the ring beam

Using the M8 nyloc nuts, secure the wall plate to the ring beam, starting at either end and working towards the middle to ensure the 2 pieces do not separate. Finger tighten the nuts and align the edge of the gutter to the inside edge of the ring beam.



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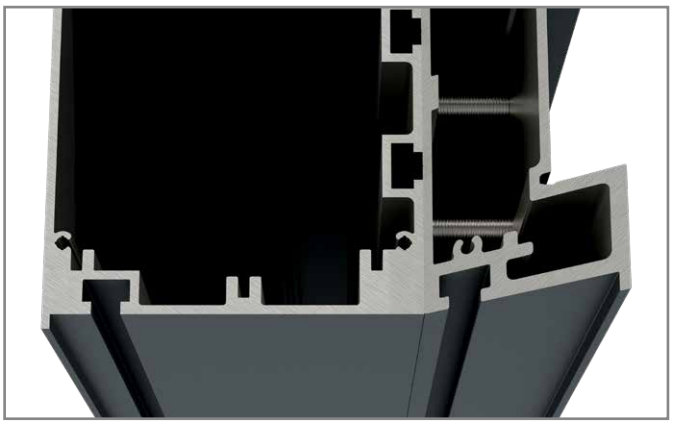
Installation Instructions

15. Final alignment and tighten down wall plate to ring beam bolts

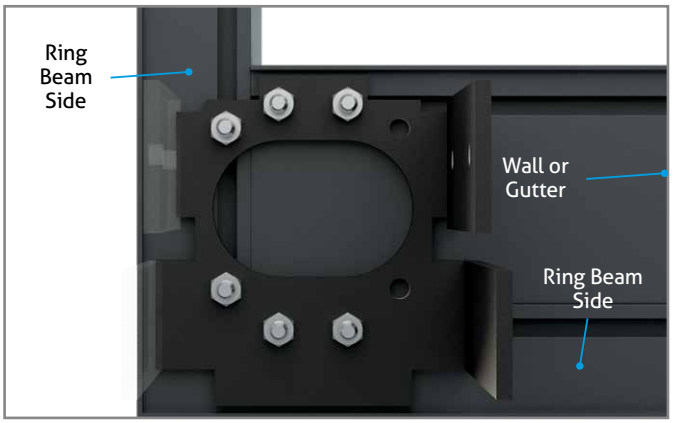
Ensure the end of the wall plate is aligned with the inside edge of the ring beam. If this is not correct you will have issues fitting the ring beam sides. Finally, ensure the bottom of the wall plate is level with the bottom of the ring beam so the post bracket will sit flat and level against the bottom of the ring beam and wall plate.

Now the wall plate is in the correct position tighten down all bolts working from the outside inwards.



16. Assembling the ring beam

NOTE: ALL FIXINGS AND GASKETS NEED TO BE INSTALLED PRIOR TO CLOSING THE RING BEAM.

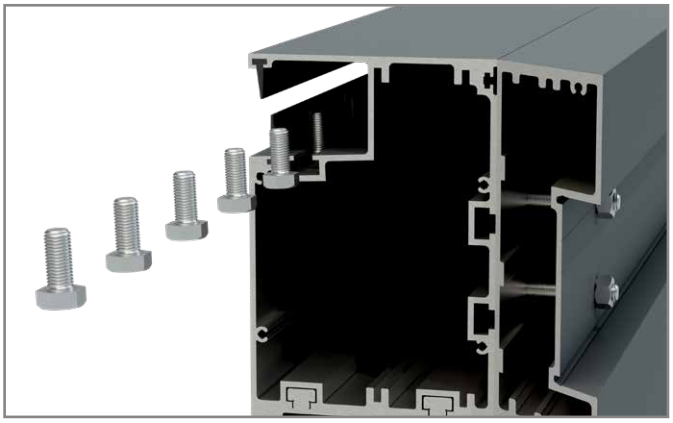


POST BRACKETS
2 M8 x 20 bolts per channel, 6 bolts per post bracket. Do not install post bracket at this stage.

GUTTER, L OR T BRACKETS
1 M8 x 12 bolt per end bar with L bracket and 2 M8 x 12 bolts per mid bar with T bracket.

Insert as many bolts as you require.

WALL PLATE, L OR T BRACKETS
1 M8 x 12 bolt per end bar with L bracket and 2 M8 x 12 bolts per mid bar with T bracket.



Insert as many bolts as you require.

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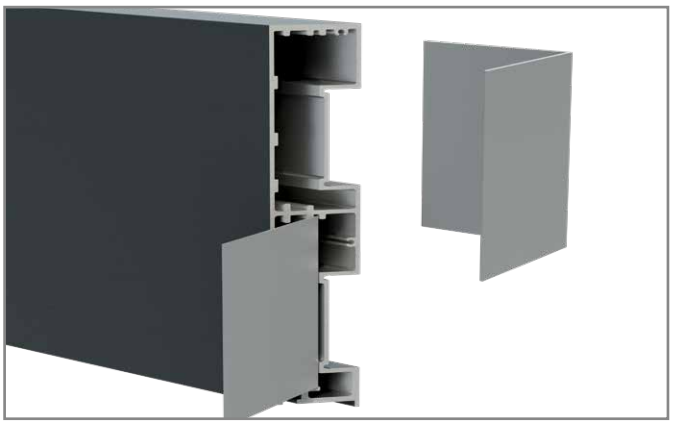
17. Preparing ring beam sides for fitting

Prepare the ring beams by inserting the corner brackets in to the ring beam using the slots colsest to the external face of the ring beam.



18. Securing ring beam brackets and joining to gutter

Secure the ring beam brackets to the ring beams using 4 number 5.5x25mm self drillers 50mm from the edge of the ring beam (2 per bracket) along the drill line.

Join the ring beam side to the ring beam gutter section.

19. Securing the ring beam

Secure the ring beam brackets to the ring beams using 4 number 5.5x25mm self drillers 50mm from the edge of the ring beam (2 per bracket) along the drill line.

Repeat **Steps 17, 18 and 19** for the remaining 3 corners.

20. Sealing the gutter

A bead should be run around both ends of the gutter using the Sikaflex provided.

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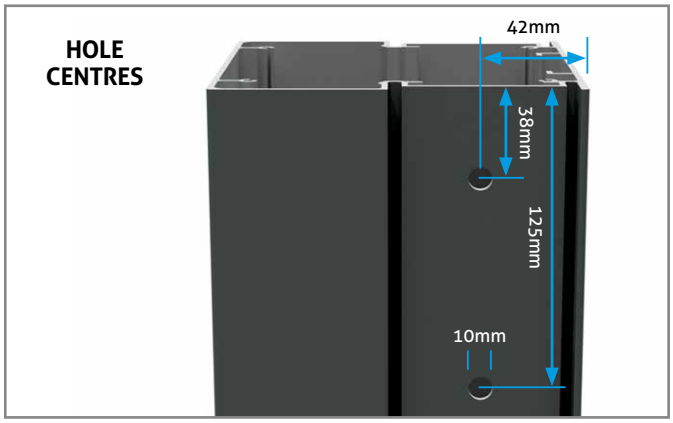
Installation Instructions

The ring beam is now complete.

21. Preparing the posts, top of post

Refer to your CAD drawing and cut the posts to the required length. At the top of every post you will need to drill 4.no 10mm holes. These will line up with the 4.no tapped holes on the post bracket.

Refer to the marking out drawing to ensure first time fitment.

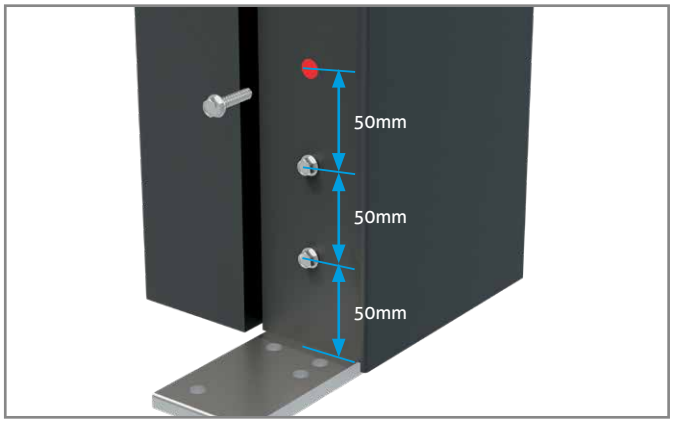


22. Preparing the posts, bottom of post

At the bottom of the post we recommend drilling 6.no pilot holes using a 3mm drill bit.

Insert the floor bracket into the post and drill 6.no 3mm holes at 50mm centres. Secure the bracket to the post using 6no 5.5x25 self tappers. 3 fixings per bracket. 2 brackets per post.

If the post is being used for drainage, drill a 42mm diameter hole at the bottom of the post on the outside face for your elbow joint.



If the pipe snug option has been selected you will need to drill a 52mm diameter hole and debur the internal face of the post to ensure a tight fit.

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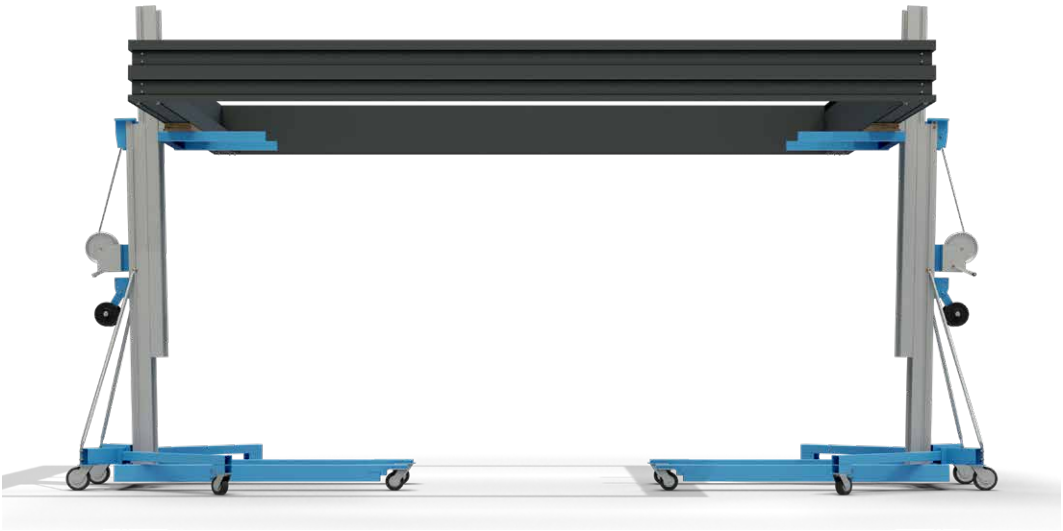
Installation Instructions

23. Lifting the ring beam

Due to the weight of the system we strongly recommend using Genie, or similar lifting equipment to raise the ring beam in to position to fit the posts. We recommend the lifting arms are placed under the wallplate and gutter section of the ring beam as these are the heaviest sections. We also recommend that timber planks are placed on the lifting arms to further distrubute the load and to avoid any damage to the lips on the underside of the ring beam. NOTE: Please ensure the load is balanced and the lifting equipment is on stable ground and will not move during the lift.



24. Fitting the post brackets

Once the ring beam has been lifted approx 1000mm and is adequately secured the post brackets can be fitted.

Each post bracket requires 6 No. M8x20mm that you would have installed on step 16 before closing the ring beam.

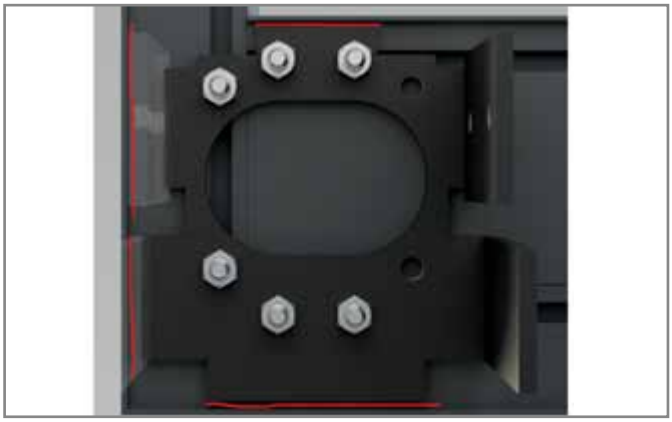
Each bracket needs;
- 2.no fixings on the ring beam side.
- 2.no fixings from the ring beam that's mounted to the gutter/wallplate.
- 2.no fixings from the gutter/wallplate.

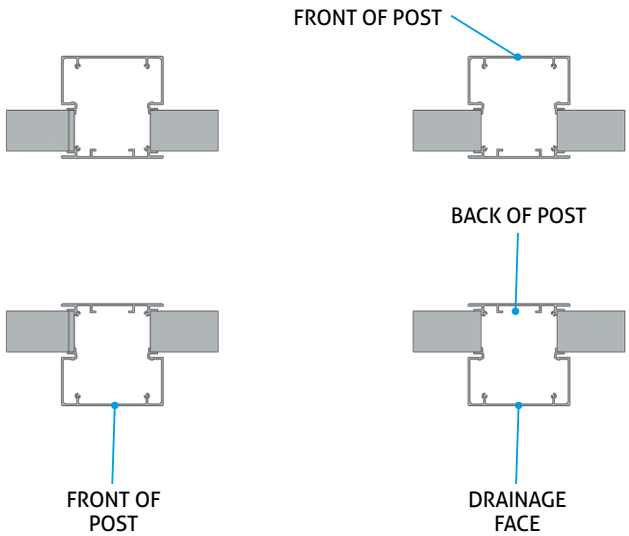
Line up the fixings with the bracket and install the bracket with the bolts finger tight.

Using an offcut of post profile slice an approx 20mm section to use as a template to align your post bracket. The off cut of post should sit flush with the bottom of the ring beam and inside the lip of the ring beam. The diagram on the right highlights the areas that a 2.5mm gap from the inside of the lip to the face of the bracket is required to get the correct fitment of the post. Once this has been achieved, tighten down all 6 bolts and remove your post template.

The brackets need to be in the correct orientation. The narrow legs on the post bracket are to be on the inside of the ring beam and the wide legs of the bracket need to be on the outside of the ring beam.

This in turn will mean the post to concrete pads brackets are as per the diagram opposite.





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Installation Instructions

25. Fitting the posts

Once the ring beam is raised to the desired height insert posts on to post brackets and use 2. No M8x25 bolts, 1 per side, finger tight, to hold the post in position.

On the post that is being used for drainage extra steps are required to install the internal down pipe.

Install the drainage spigot into the gutter. On the underside of the gutter install the spacer ring provided and then the threaded ring and secure the gutter drainage spigot. **See image 1**

Connect the push fit joiner, down pipe and 90° elbow to the gutter drainage spigot. Trim the down pipe to the required length if necessary. **See image 2**

Measure from the underside of the ring beam, NOT POST BRACKET, to the centre of the 90° elbow.

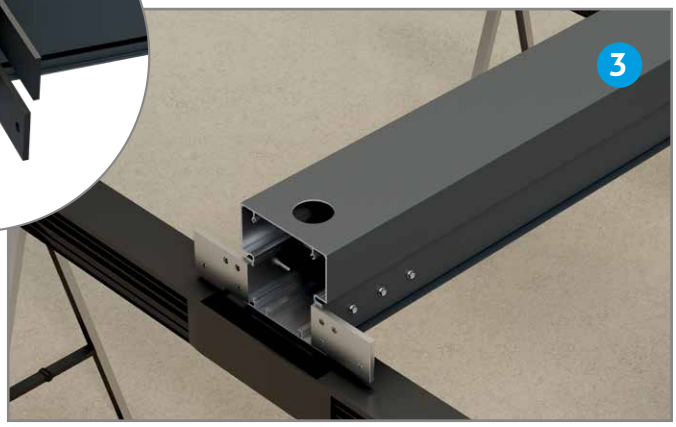
Mark and drill a 52mm hole in the post, for your 90° elbow to exit. Hole should be on outside face of post. See step 24 for reference. **See image 3**

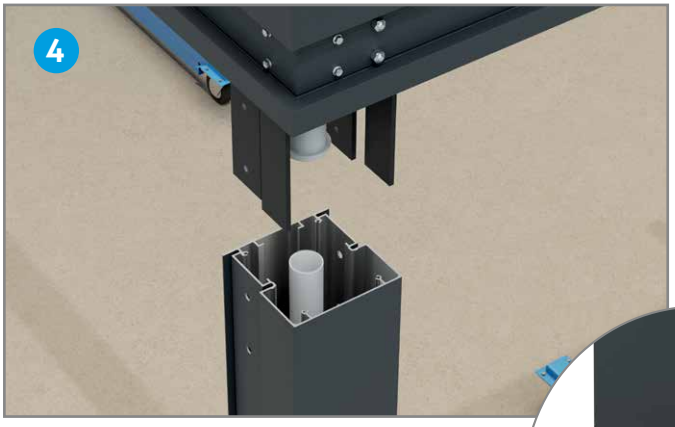
Remove the push fit joiner, down pipe and 90° elbow and insert into the post. **See image 4**

Install the post making sure the push fit joiner is fully seated on the gutter spigot.

From underneath locate the 90° elbow into the 52mm pre drilled hole. **See image 5**

Whilst holding the 90° elbow slide the pipe snug over the pipe and install onto the post. **See image 6**





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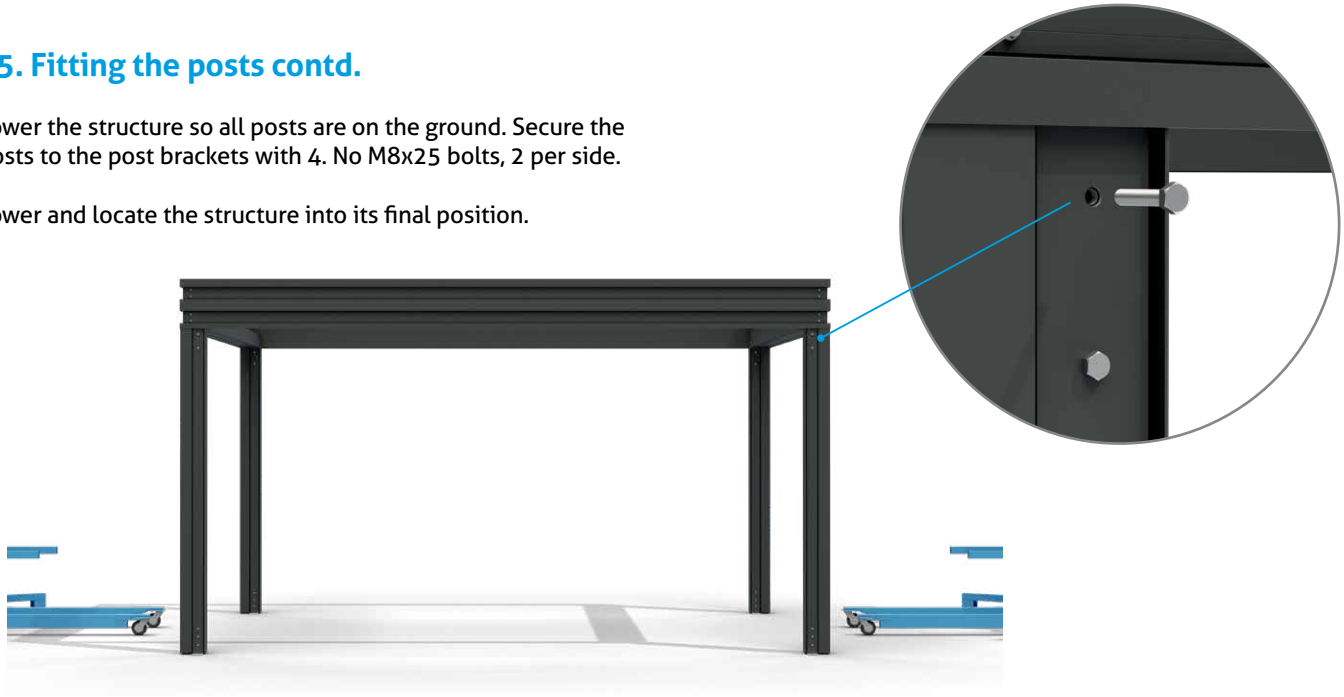
Installation Instructions

25. Fitting the posts contd.

Lower the structure so all posts are on the ground. Secure the posts to the post brackets with 4. No M8x25 bolts, 2 per side.

Lower and locate the structure into its final position.

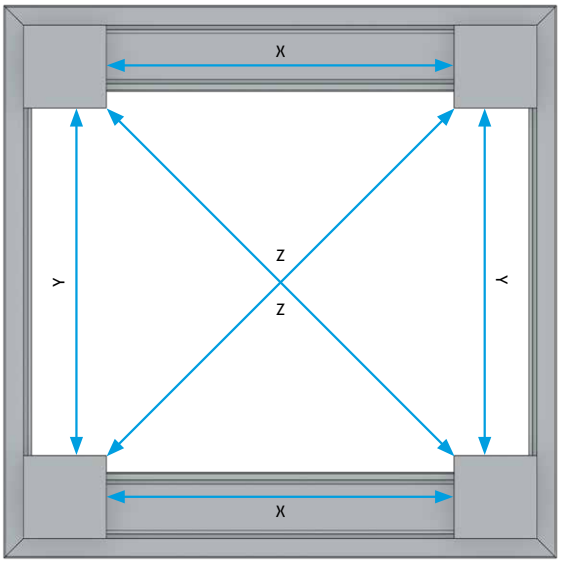


26. Squaring and levelling the structure

At this stage of the assembly we need to ensure all posts are plumb, the structure is square and level.

Measure diagonally from internal corner to internal corner (Z) both dimensions should match. If they do not then measure the X and Y internal face to internal face and use a spirit level to work out what post needs to be moved.

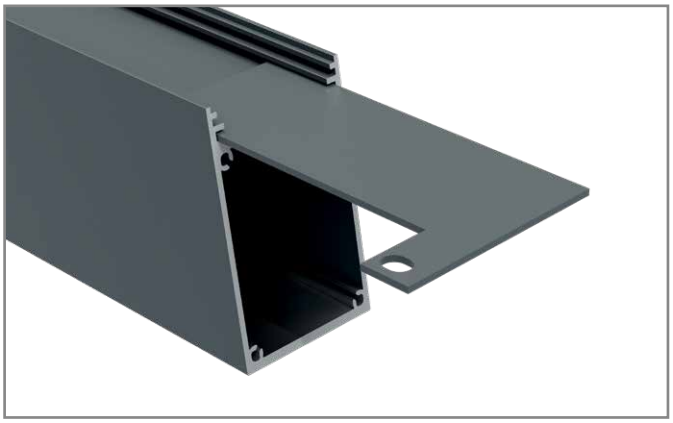
Once the structure is square and level move on to **Step 27**.



27. Preparing your bolster bars

You need to prepare your bolster bars ready for installation. This is best done at ground level.

Using your CAD drawing, page 2, detail F will confirm how far the L or T brackets need to be located out of the front of the bolster bar. Locate your L or T brackets into both ends of your bolster bar.



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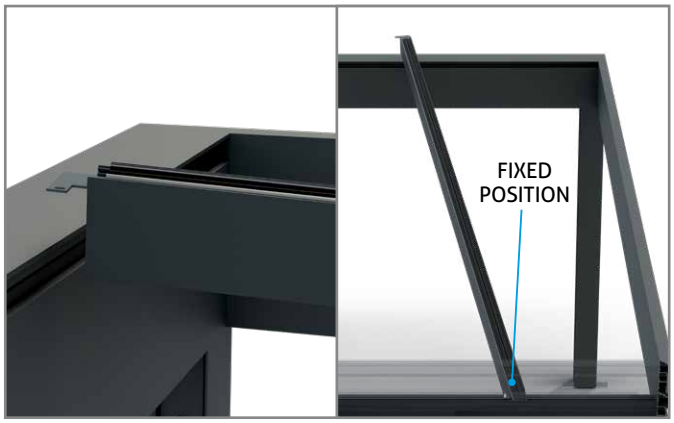
Installation Instructions

28. Fitting the plastic insert

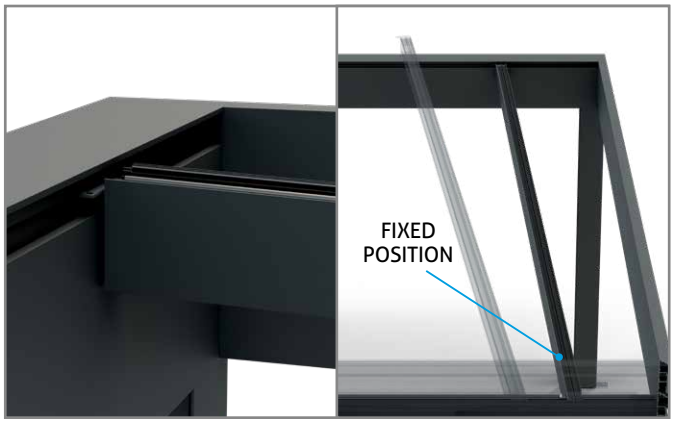
You now need to fit the plastic insert into the bolster bar. To fit the plastic insert you slide this into the section just above where the T bracket has been located.

29. Fitting the bolster bars

Starting at the gutter end locate the fixing bolt in the gutter channel into the L bracket hole. The wall plate end of the bolster bar is currently above the wall plate.



Whilst holding the gutter end of the bolster bar in a fixed position bring the wall plate end of the bolster bar towards you. Once the desired angle has been achieved you will have enough room to lower the wall plate end of the bolster bar into the ring beam and locate the L or T bracket in to the wall plate channel.



While continuing to hold the gutter end in a fixed position slide the wall plate end of the bolster bar along the wall plate being careful not to scratch the powdercoat until the bolster bar is at 90° to the wall plate.

Now your gasket has been cut and trimmed secure the L or T, FINGER TIGHT ONLY by installing a nylock nut/nuts as required by the bracket.

DUE TO THE LIMITED SPACE WE RECOMMEND THAT ALL BOLSTER BARS ARE INSTALLED BEFORE THEY ARE SPACED FOR GLAZING.

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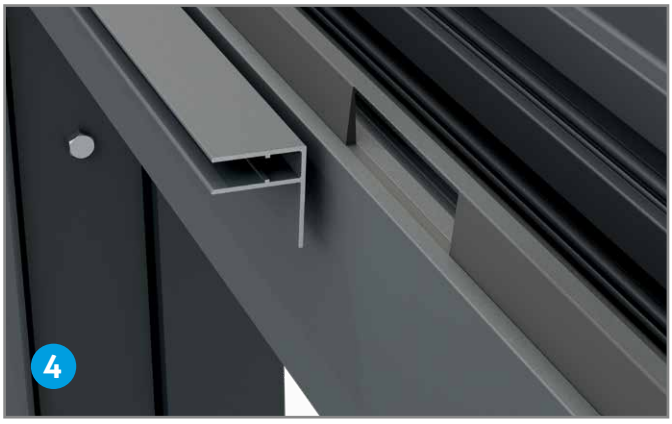
Installation Instructions

30. Spacing the bolster bars and fixing down

1. Push both end bolster bars up against the ring beam. Mark and trim gutter and wall plate gaskets.
2. Secure the bolster bar by tightening down the 13mm nyloc nuts.
3. Using a drill screw to secure the L or T bracket to the bolster bar at the top and bottom.
4. Using the F section and your CAD drawing to locate, mark and cut the gaskets fot the next bolster bar. Move the bolster bar into position.
5. Repeat this process untill all bolster bars are in position. Double check bolster bar centers refering to your CAD model and tighten down all fixings.



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Installation Instructions

31. Fitting of the glass

Now that you have your structure erected you are now able to glaze the system. Starting at one end lay the first piece of glass into the plastic insert on the end bar and the first bar in. Ensure the glass is located within the wall plate and flush with the end of the plastic insert at the gutter end.

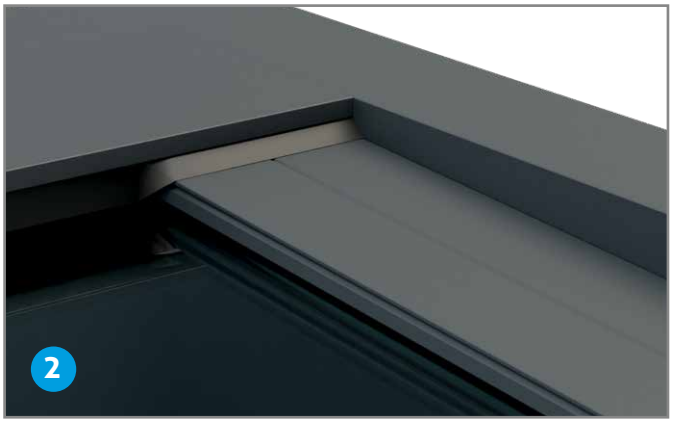
The glass should rest on the plastic inserts evenly without touching the centre upright of the plastic insert. Push the glass up until it is in the wall plate chanel and level with the end of the plastic inserts.

At the wall plate end there is a large rubber gasket which you must ensure is lifted so it sits on the top of the top cap. If this folds underneath it must be flicked out.

32. Knocking on the top cap

Using a rubber mallet firmly hit the centre of the top cap starting at the wall plate end.

At the wall plate end there is a large rubber gasket which you must ensure is lifted so it sits on the top of the top cap. If this folds underneath it must be flicked out.



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33. Fitting the F section

Between the two glazing bars you need to add the F section onto the end of the glass. Apply a small bead of clear Sikaflex into the upper section of the F profile and then push into the edge of the glass. The F section will be supplied at the correct width.

34. Fitting of the bar end plates

On the end of each bar you need to fix an end plate. Using two number 10 hex head screws using a ratchet spanner.

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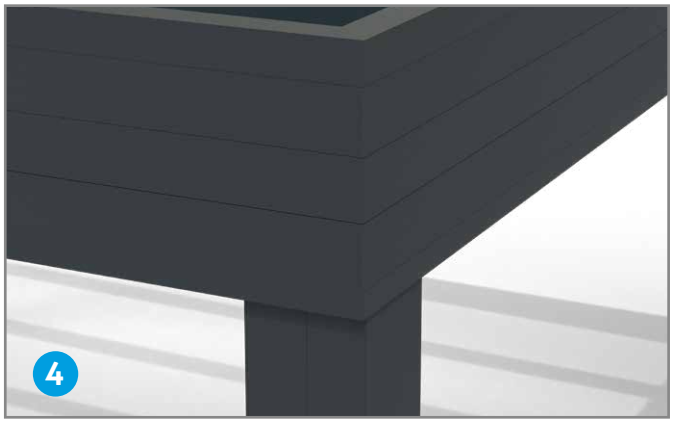
Installation Instructions

35. Fitting the capping

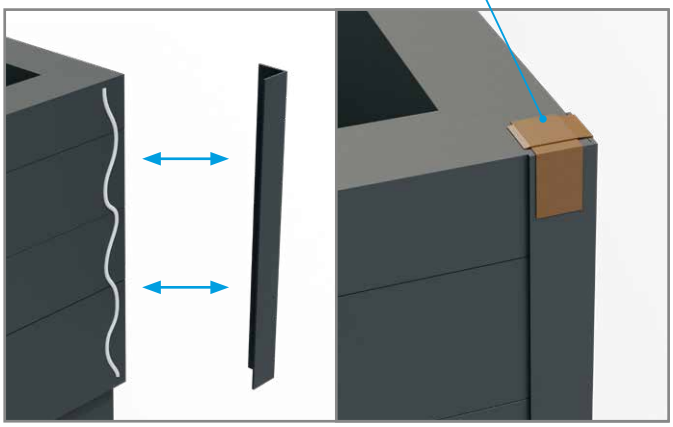
So that all fixings are concealed knock on post and ring beam trim onto ring beam sides and posts.



36. Corner trim

Fix corner trim with Sikaflex provided.

Use tape to hold the corner trim in place whilst Sikaflex cures



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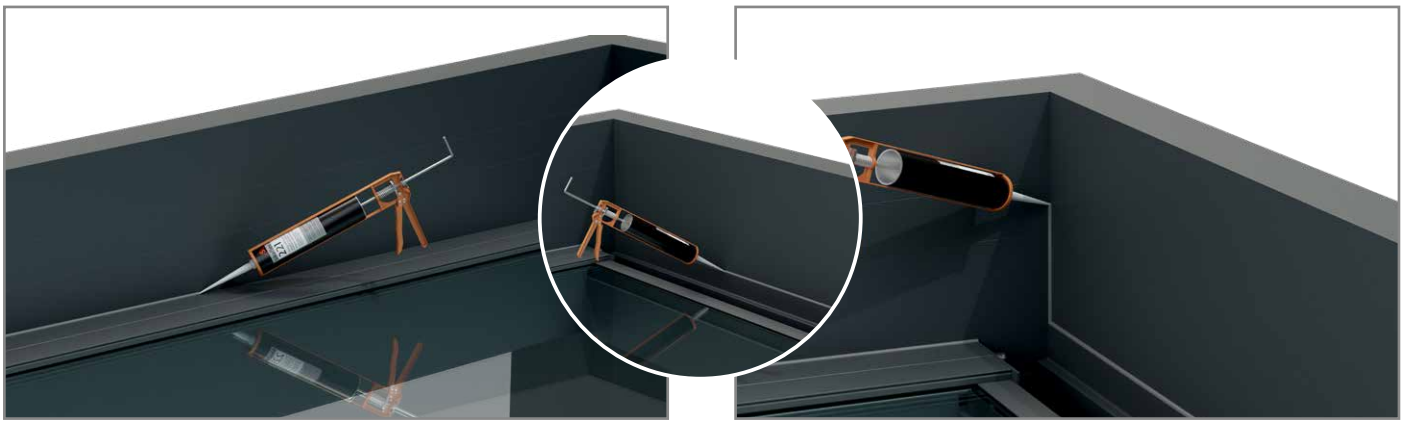
Installation Instructions

37. Secondary sealing



38. Finished assembly

This installation guide should be used in conjunction with the Installation video for this system which can be found on the trade partner area of our website.

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