

This guide applies to both Free Drainage and Positive Drainage Systems.

Version 1.25

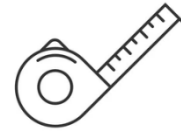


Equipment

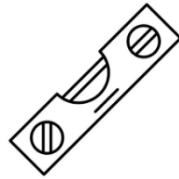
**Mitre saw with
aluminium blade**



Tape measure



Level



**Cordless
screwdriver**



Site PPE



General Notes

- On delivery, all products should be inspected. If there are any issues, please report them immediately and do not commence installation
- Free draining soffits should incorporate a fall to direct water away from the building façade
- BS EN 12056-3 recommends piped drainage where area being drained is greater than 6m².
- Safe working practise should be observed at all times during the installation process
- Always use appropriate torque setting on cordless screwdriver for screws
- Use offcuts of material wherever possible to minimise waste
- Always use the correct PPE throughout installation

Installation Guidance

1a. Installing the Free Drainage system:

Cut the Soffit Angle Drip Edge Profile and Edge Closure Profiles to length, taking care to ensure the corners are a tight connection (see **Fig B on page 4**): Note, the Soffit Angle Drip Edge Profile is to be installed on the front edge of the balcony.

Ensure corner joints are perfectly aligned by 'dry fixing' the Horizontal Corner Brackets. Once alignment is correct, tighten grub screws in the Horizontal Corner Brackets so they are fixed **to the side profiles only**. **Fig A**

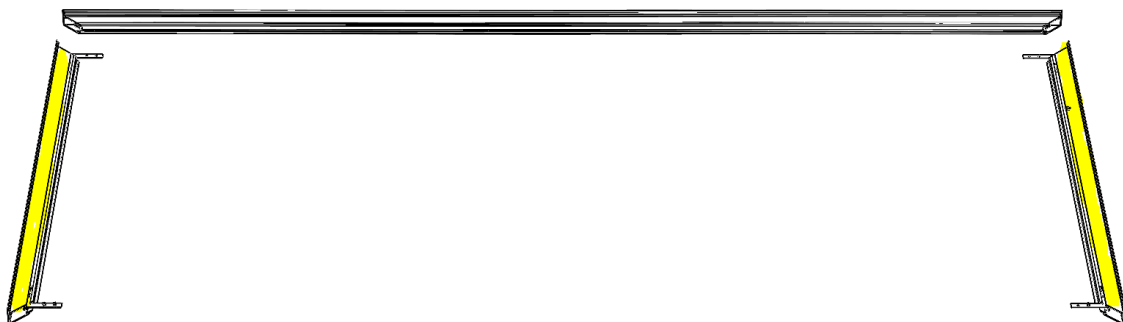
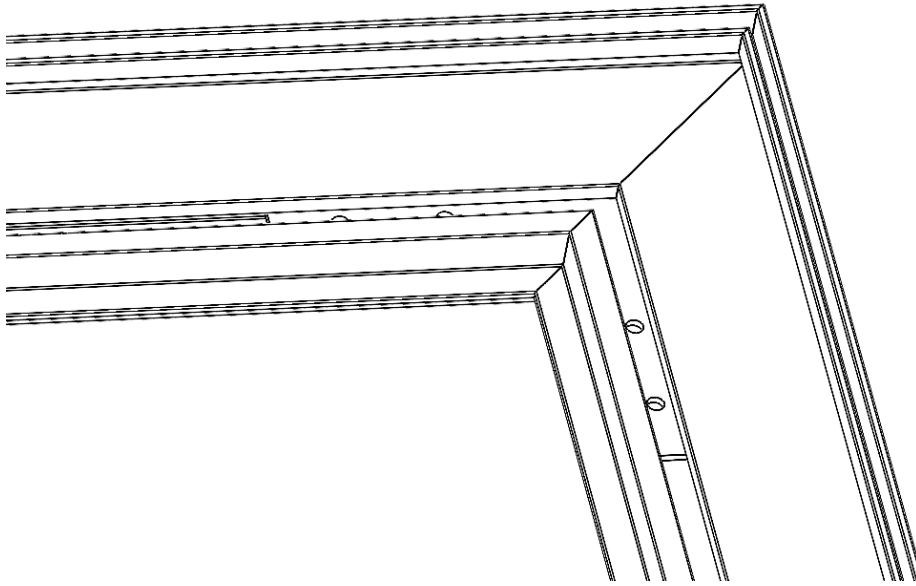
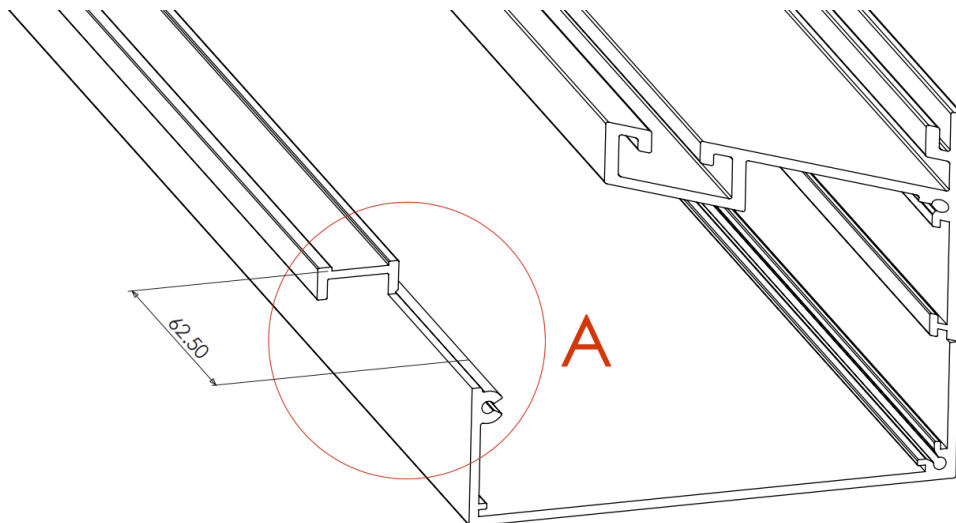


Fig A

**Fig B****1b. Installing the Positive Drainage system:**

Cut the Gutter Profile and Edge Closure Profiles to length, taking care to ensure the corners are a tight connection (**Fig B**). Corner joints are aligned by 'dry fixing' the Horizontal and optional Vertical corner brackets.

Corner detail: the gutter profile is only cut to the angle at the top part of the profile as per **Fig C** below. The soffit lip on the gutter profile needs to be cut off 62.5mm from the end, and removed (**detail A**).

**Fig C**

2a. Fix the first Edge Closure Profile to the steel frame as follows: Predrill holes to suit M8x150mm carriage bolts in the bottom flange of the steel, ensuring bolt holes are parallel to the edge of the steel frame. Insert the M8x150mm carriage bolts and loosely tighten before sliding the Edge Closure Profile into position by inserting the bolt head into the channel as **Fig E**

Note: only the front and rear profiles (**Fig D**) are required to be fixed to the frame.

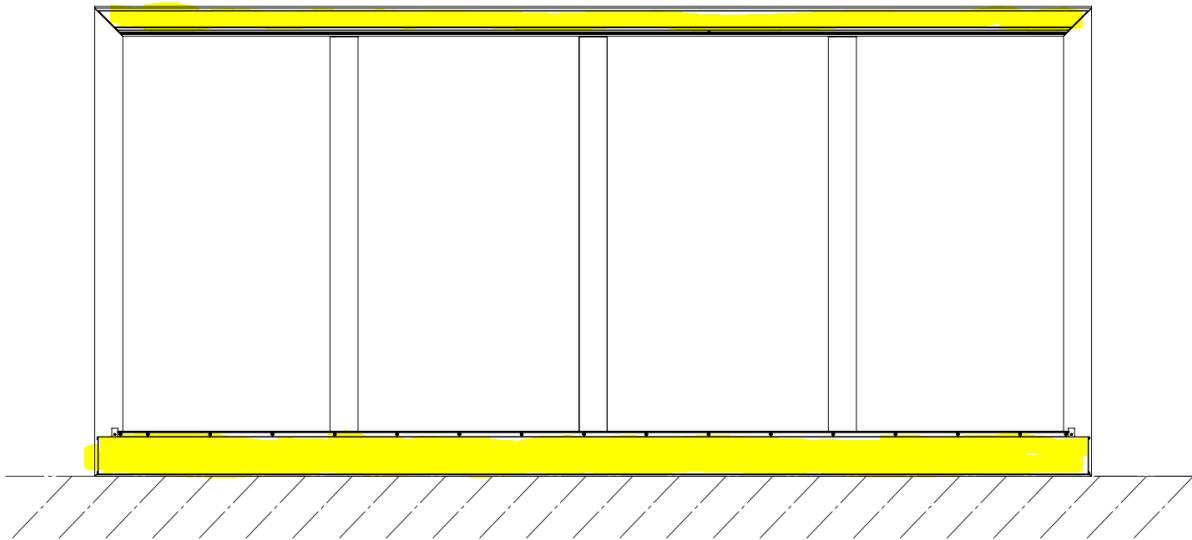


Fig D

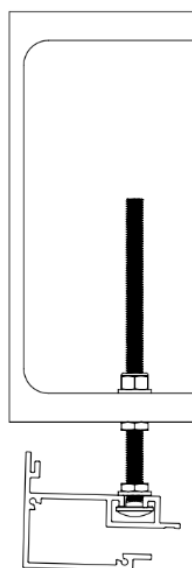
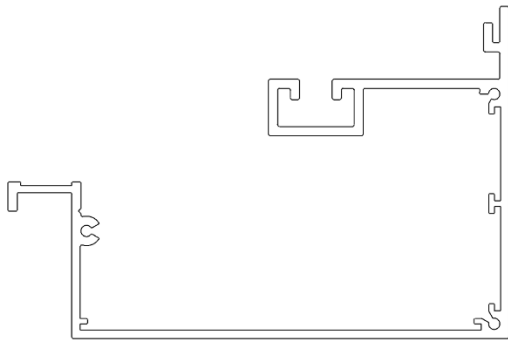


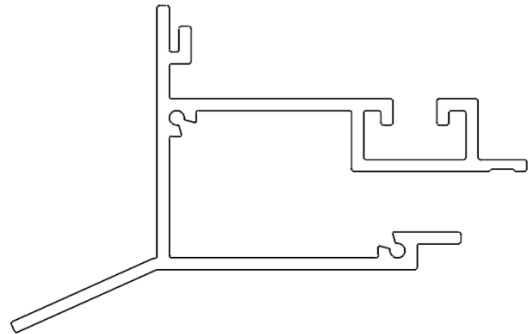
Fig E

2b. Next, fix the drainage feature on the opposite side, aligning bolts to the steel in the same way as step 2a.

Drainage feature ID:



Gutter profile (Positive Drainage)



Soffit Angle Drip Edge profile (Free Drainage)

If installing Positive Drainage: Prior to fixing the Gutter Profile to the steel frame, use a hole saw to create outlet openings in the gutter profile for attaching downpipes. By using the Overflow Adaptor, the same downpipe connection can be fitted at both ends of the gutter. Insert the Overflow Adaptor as shown in Fig F.

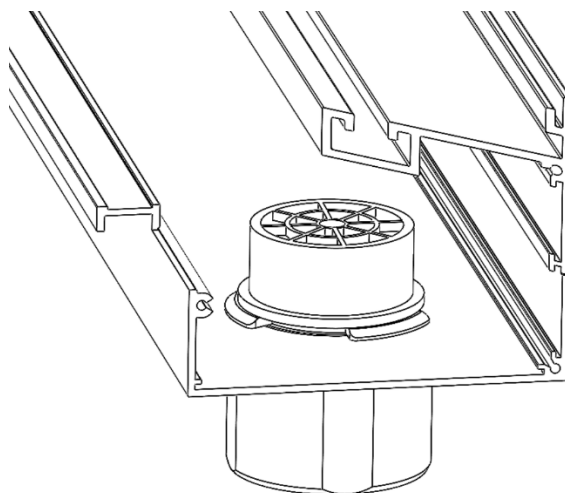


Fig F

4. Fix **one side** of the Edge Closure profiles into the installed profiles using the corner brackets and inserting into the channel as shown in **Fig G**. Set the frame to a 1:60 fall towards the drainage feature by adjusting the hanging bolts.

Note; at this stage, leave the Bolts which are engaging the drainage feature and Edge Profiles loose to aid fitting of soffit boards.

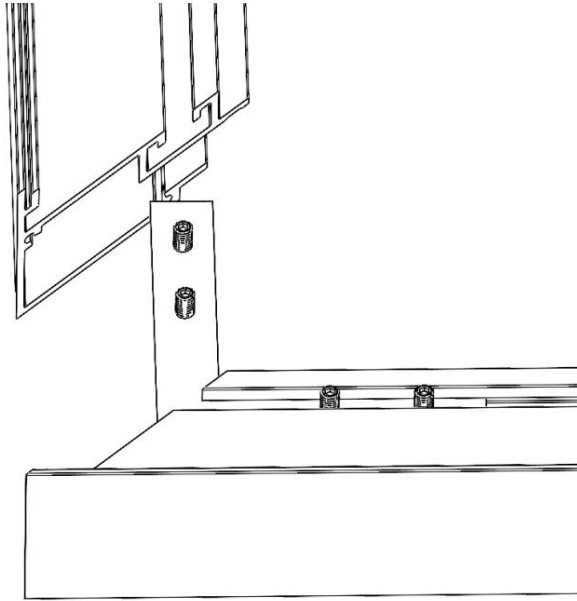


Fig G

- 5a. Once the 3 sides are installed, you can now install the soffit boards. First, measure the distance of the bottom edge of the side Edge Closure Profile and **add 50mm**. Cut the soffit boards to the final calculated length. **Fig H**

Note; to facilitate drainage, the boards are installed perpendicular to the drainage feature.

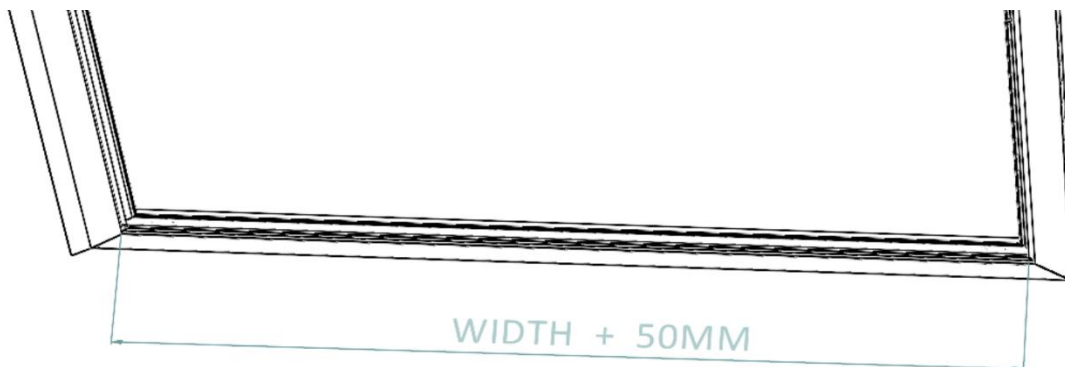


Fig H

5b. Install the soffit boards by inserting into the corner as shown in Fig I, before riveting & screwing the first board in place Fig J.

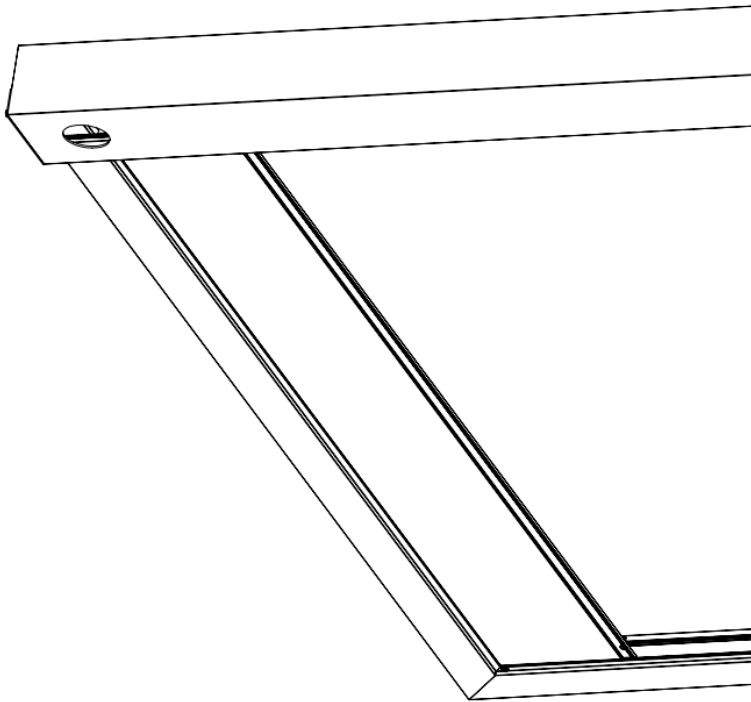


Fig I

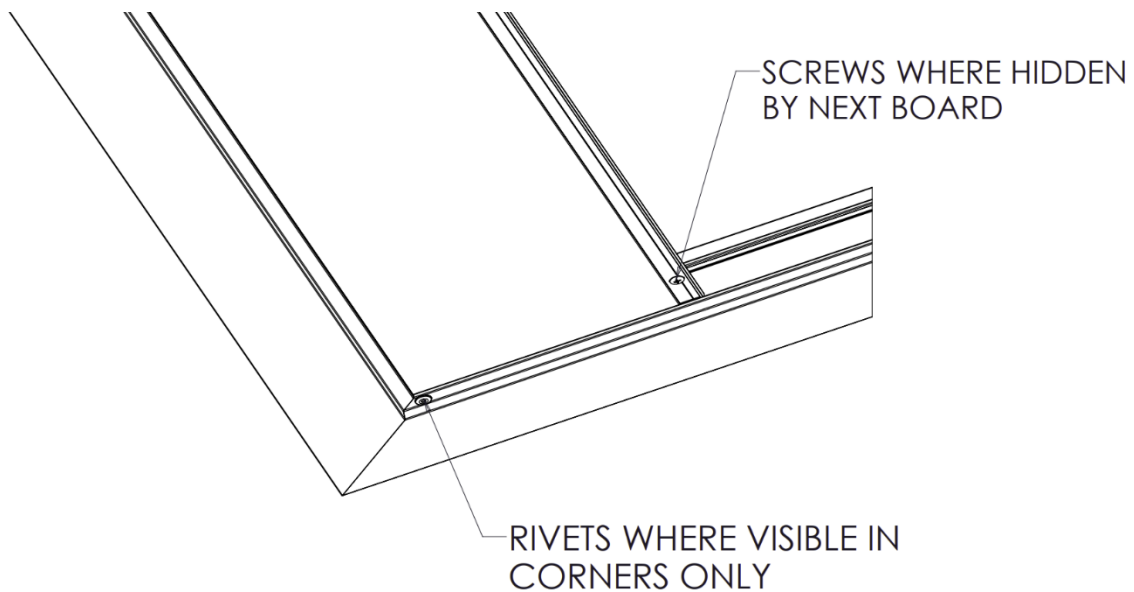


Fig J

6. Repeat this step, adding all soffit boards except the last one, riveting and screwing as Fig J.

Note: When fixing soffit boards for the Free Drainage System, the boards can all be aligned. When fixing soffit boards for the Positive Drainage System, stagger the soffit boards as shown in Fig L to allow future access to the gutter from above.

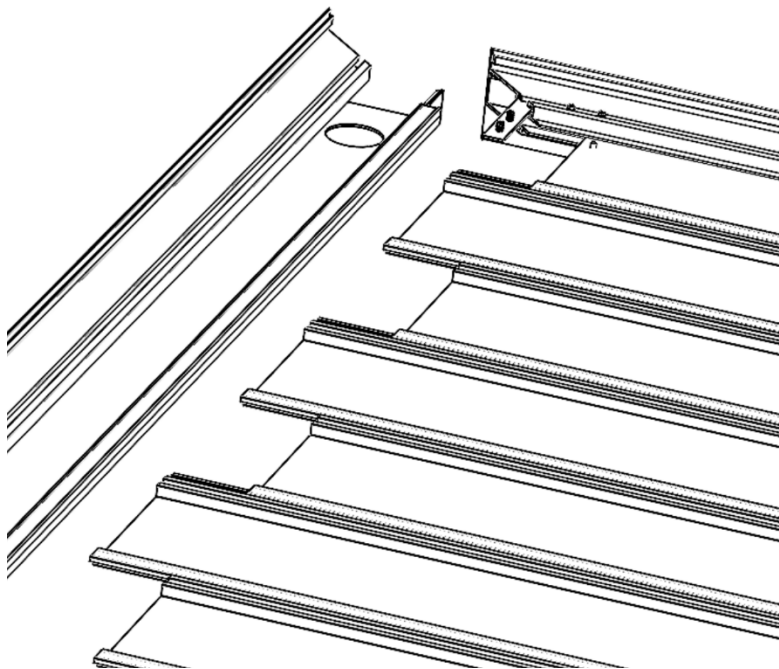
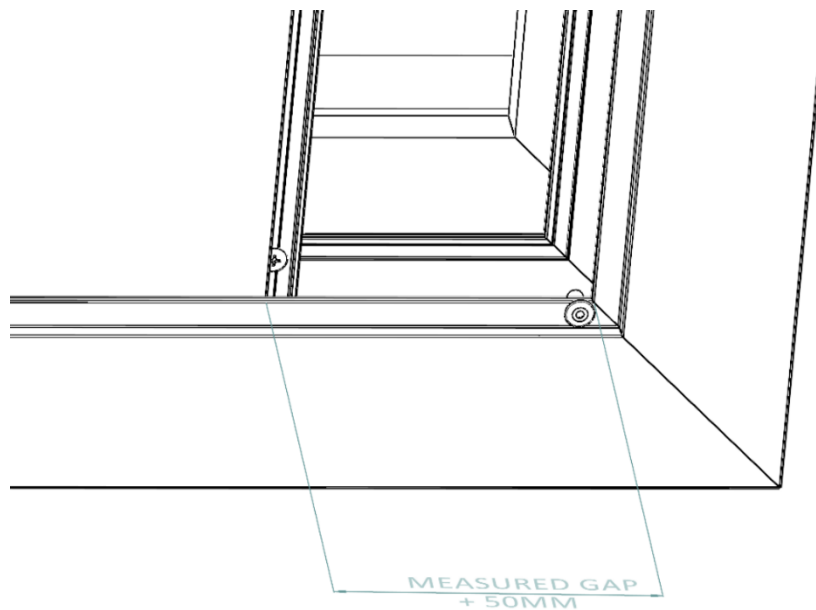


Fig L

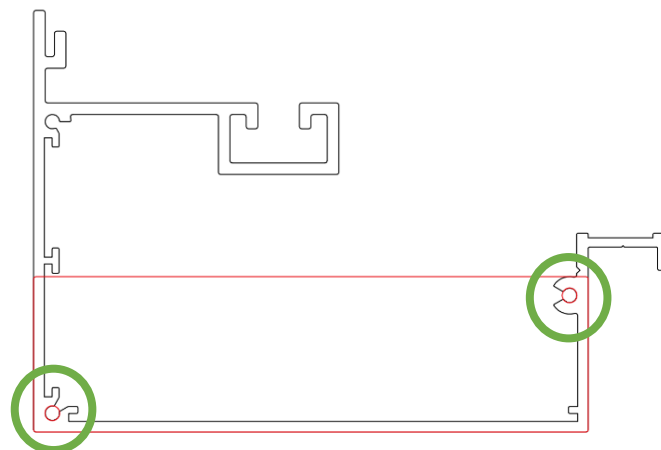
7. Once the second last soffit board is installed, you then need to measure the width of the last board. To do this, dry fit the last Edge Closure profile, ensuring the corners are tight. Measure the remaining gap between the second last soffit board and the Edge Closure Profile and add 50mm. Fig M.

**Fig M**

8. Once the last Soffit board is fitted, the remaining Edge Closure Profile can be fitted into place by inserting the corner brackets into the channel as shown in Fig G. Once inserted, tighten grub screws to ensure a strong connection.

If installing Free Drainage, your BalcaSmart Soffit Free Drainage System is now complete. If installing Positive Drainage, continue with Step 9.

9. Fit gutter end caps using the screw ports in diagonally opposite corners, as indicated in Fig N, applying silicon as required to seal edges and prevent drips. Your BalcaSmart Positive Drained Soffit System is now complete.

**Fig N**

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