

Rainwater Systems

Preparation

Fascia boards should be in good condition, level and in linear alignment (straight). If required, packing should be fixed behind gutter brackets to achieve good alignment. The fascia should be capable of supporting the gutter when full of water, ice or snow. Where gutter is fixed to PVC-u fascia board, it is recommended that a timber support framework is installed behind the fascia to provide a straight and secure fixing surface.

Use standard metal work tools to cut or drill aluminium gutters. Angle grinders are not recommended. Where gutter or fittings are polyester powder coated, cut edges should be deburred and repainted with touch up paint.

Gutter position and bracket fixing

Gutters must be installed level or to a fall of 1:600. The gutter should not be positioned at a level which causes rainfall to overshoot the gutter, i.e. too low, or where it is damaged by the high velocity impact of sliding snow, i.e. too high.

Position the gutter support brackets at approximately 750mm centres around the building. Take care with the new clip fit system that a bracket is fixed central of every joint in the gutters, outlets and corners to achieve a concealed joint. A 3mm gap is

recommended at all joints to allow for expansion.

Royalty range guttering would require a decision to be made with regards to bracket type sequencing. We recommend a King bracket at every joint and another central on 3000mm lengths of gutter with Queen support brackets in between each King bracket. However, other combinations such as only Queen brackets without King brackets or vice versa, are also an option.

Snowloading

Heavy snowfall coupled with highly insulated roofs is causing accumulation of snow on roofs. A sudden thaw will then cause the snow to slide down the roof and rest against the gutters if they are fixed too high. Greater care must be taken to make sure the gutters will not impede sliding snow.

Jointing

Joint sealing must not be carried out in wet weather or in temperatures below 5°C or above 40°C. Joint surfaces must be perfectly clean and dry. Ensure that the gutter joint sockets/spigots are correctly aligned with each other to ensure free thermal movement within the gutter joint.

With clip fit guttering, place 3 lines of silicone at each joint, one in the 3mm

gap and one either side to receive the clip fit jointer. Press the jointing clip into the silicone prepared joint, ensuring that the centre of the jointer lines up with the 3mm gap. **The jointer must clip into both sides of the gutter on both sides of the joint - listen for the click.**

Fixing

To ensure the long-term durability of aluminium gutter systems, it is vitally important to ensure that the fixing components are equally durable and capable of providing the necessary support. They must therefore be non-corrosive, of a compatible material to ensure no electrolytic corrosion occurs and of the appropriate size. Only stainless steel screws must be used to fix gutters, whether direct, fascia or rafter bracket fixed.

Testing

On completion of an installation, blank off all gutter outlets. Fill gutter to overflow level and leave for 5 minutes, then check for leakage. Discharging the flood test water into rainwater pipes will identify any leaks in rainwater pipe joints. Any joints that fail should be taken apart, all sealant cleaned off, then re-sealed and re tested.

We recommend that a 3mm spacer be used to give a 3mm expansion joint between each section of gutter and each outlet and corner.

The spacer is removed and a line of low modulus silicone is used to fill the 3mm gap in-between the guttering.

An internal clip fix gutter joiner is then used to join the gutters. Apply silicone sealant between the clip and gutter, we recommend that the silicone sealant be applied to both ends of the clip.

Pictures below show this sequence using Half-round Clip-fit guttering. The procedure is the same with other profiles.

- 1 Use a spacer to ensure a 3mm expansion gap.



- 2 Apply silicone sealant to clip.



- 3 Locate clip ensuring that the clip MUST clip into both sides of the gutters.



- 4 The clip in position will look like this.



- 5 Make sure that any gaps between the clip and the gutter are sealed with silicone on ends.



- 6 Clean off any excess silicone.



Rainwater Systems

The capping system is fixed in position using hidden holding brackets at 1500mm centres. **(1)**

Place joiner/brackets approximately 1.5 meter apart on top of the wall where the capping is to be fitted.

We recommend that when fitting capping that you start from a corner if applicable.

If an end cap is to be used, then make sure that you fit the end holding down bracket at least 100 mm from the end of the capping.

The brackets must first be secured to the wall ensuring that each overhangs the wall on each side equally and that the slope is facing inward to direct the rainwater internally, or place flat for Economy.

Line up the edge of the brackets using a straight edge or line.

Ensure that the brackets when fixed will coincide to meet the joints; this will support each end of both capping lengths to be joined.

To get a consistent straight line on the capping surface you may have to pack up the individual brackets. Ascertain any high points on the wall and using a spirit level, place packing under brackets where necessary.

It is recommended that a line of silicone sealant be applied onto the front face, top and back face of the brackets to form a complete silicone layer between bracket and capping. **(2)**

If the capping is powder coated, a portion of the brackets will be supplied powder coated and the remainder mill finish. The powder coated brackets

should be used at all joints and the mill finish brackets everywhere else.

Once the brackets are in place, the capping is then secured by hooking the 15mm lip over the outside edge of the brackets and push the capping down over the inside edge of the brackets. Allow a minimum 3mm gap between capping lengths for expansion. **(3-6)**

The capping must now be secured to each bracket using either self-tapping screws or pop-rivets on the inside face only. In order to locate each bracket, run fingers under the inside edge of the capping **(7-8)**. The screw heads can then be painted with touch up paint (available from Stormguard) if desired.

At joints, it is recommended that a line of silicone sealant be applied to each side of the bracket, leaving the centre clean.

1



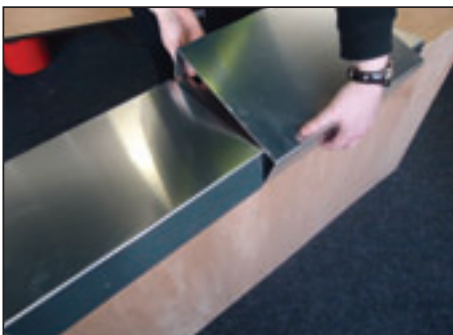
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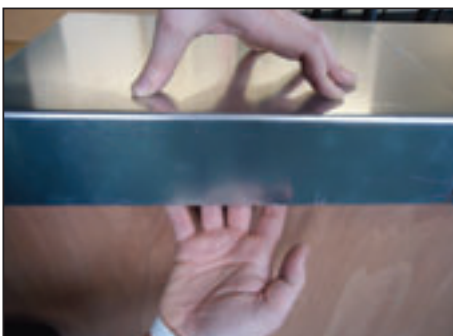
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