

# Evolve Deepflow Gutters Installation Guide

## General Guidance

### Preparation

Fascia boards should be in good condition, level and in linear alignment (straight). If required, packing shim plates 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-ue cellular 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, SC880.

### Gutter position

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.

### 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. However, for the ultimate protection, snow guards must be installed.

### 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. Use a clean cloth and solvent cleaner SC108 to remove all traces of dirt or grease, which may not be visible.

Ensure that the gutter joint sockets/spigots are correctly aligned with each other to ensure free thermal movement within the gutter joint.

Only Alutec high performance low modulus sealant SC101 must be used. Use of other sealants may result in early joint failure. Sealant over nine months old must not be used.

### 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 the recommended austenitic stainless steel screws must be used to fix gutters, whether direct, fascia or rafter bracket fixed.

If fixing to fascia boards made of materials other than wood or Alutec aluminium composites, please call the Alutec Technical Services Department.

### 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.

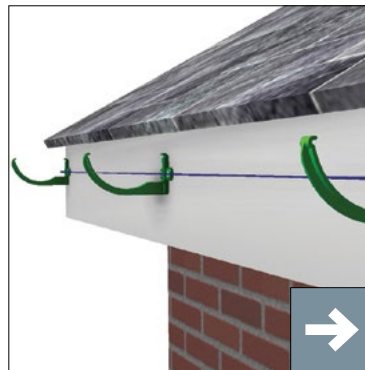


1. Set gutter height by laying a straight batten on the lowest profile of the roof.

Place the fascia bracket under the batten so that they are touching and mark the screw holes.



2. Fix fascia brackets with Alutec 32mm x No. 10 roundhead screws, code SC201 or Alutec 15mm x No. 10 countersunk screw, code SC203 if fixing to Alutec aluminium composite fascia. Drilling pilot holes first is recommended.

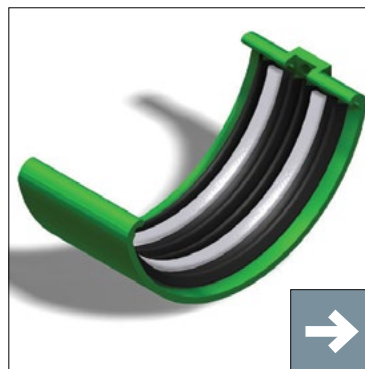


3. Fix fascia brackets at 1 metre centres.

For best flow rate fix to a fall of 1:600 or alternatively nominally level.



4. Support all corner angles by fixing fascia brackets a maximum of 150mm from each side.

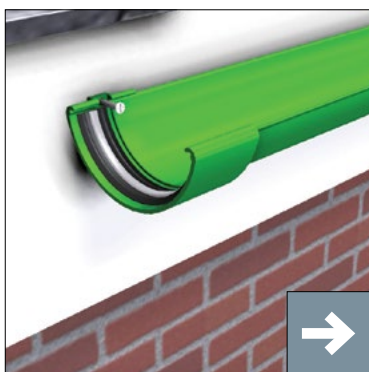


5. Prior to assembling gutter joints, apply sealant to the central grooves to both sides of the ribbed rubber gasket. Use only Alutec sealant, code SC101.



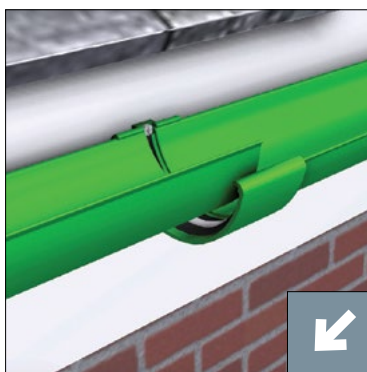
6. Place the gutter into the fascia brackets without clipping the front down. Position the union onto the rear of the gutter then snap the gutter fully into the fascia brackets.

Finally apply upward pressure to the union clip from the bottom, whilst pulling the front gutter edge into the union clip.



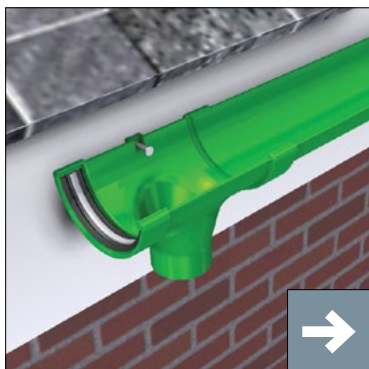
7. Anchor joint union to fascia board using Alutec 32mm x No. 10 roundhead screws SC201 or Alutec 15mm x No. 10 countersunk screw, code SC203 if fixing to Alutec aluminium composite fascia.

Drilling a pilot hole first is recommended.



8. Repeat stages 5 & 6 and joint the gutter length to the one previously fixed.

Ensure a 3mm expansion gap is left between the gutter ends.



9. Anchor outlets to fascia board using Alutec 32mm x No. 10 roundhead screws SC201 or Alutec 15mm x No. 10 countersunk screw, code SC203 if fixing to Alutec aluminium composite fascia. Drilling a pilot hole first is recommended.

## Fixing gutters to rafters

For top or side rafter fixings, use traditional one piece rafter brackets available for all sizes and profiles of gutters.

Traditional top & side rafter arm brackets are supplied to a 45° roof pitch and if required should be site bent to the required roof pitch prior to fixing.

Bracket centres will be dictated by the rafters, which should not exceed 1m. Internal/external gutter corner angles and outlets should be independently supported. It is recommended that a timber bridge between adjacent rafters should be provided to which a rafter bracket can be fixed to fully support the outlet or angle.

## Rise & fall drive in brackets

Fix directly into the brickwork/masonry by drilling out an opening in the mortar, inserting a hardwood or plastic spacer, then hammering the spike into the opening. Care should be taken to ensure that the vertical threaded rods are all in line to achieve the correct line of gutter. Bracket

centres should not exceed 1m, with additional brackets either side of each outlet and corner angle. Reduce bracket centres in locations where heavy snow loading is anticipated.