

Alumasc Rainwater Systems Cast Iron Range Installation Procedures

Preparatory requirements and installation
methods for the
Apex Heritage gutter and pipe system.



Cast Iron Rainwater Installation - Introduction

For safe and satisfactory installation of Alumasc rainwater systems, the following good practice guidelines should be reviewed before installation commences. Where unusual or special conditions arise contact Alumasc Technical Services for assistance.

General Preparation and Good Practice

Securely fixed fascia boards must be painted and capable of supporting a fully loaded gutter. Check fascia for straightness and whether shims will be necessary to align brackets without creating stress at gutter joints. Where fascia boards are not being used Alumasc provide top and side fix rafter arm brackets as well as masonry drive-in brackets.

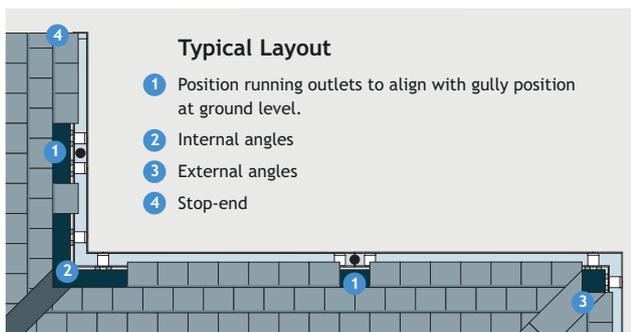


Fix brackets so as to position the gutter centrally and as close below the roof edge as possible, taking into consideration locality and roof slope finish.
If there is a risk of sliding snow, adjust the bracket positions to prevent snow hitting the front of the gutter. Extra fixings, brackets and snowboards should be considered where appropriate.

Where high winds are expected, a small bead of sealant must be applied between gutter and brackets a flexible adhesive. An occasional screw, fixed through a slot in the back of the gutter and into the fascia may be preferred, at a minimum of two per length.

Alumasc advise that the designer and contractor satisfy themselves that the application is suitable.

Setting Out



After setting out angles and outlets, fit gutters and brackets according to installation procedures for the specific rainwater system being used, as detailed in this brochure.

Cutting and Drilling

Cast iron can be cut and drilled on site with regular metalworking tools. Pencil cut lines and apply masking tape either side of cut line to protect against accidental saw damage.

Testing

Allow sufficient time for sealant joints to fully cure. Check all bracket and gutter fixings are secure and plug outlets. Fill up to overflow level (but not beyond). Allow 5 minutes before inspecting all joints for leaks.

Health and Safety

Always refer to current Health and Safety legislation, safe systems of work and the relevant material safety data sheets.

Factory-primed System Components

Alumasc supplies cast iron products factory primed with one coat of protective red oxide primer. This primer will give protection against corrosion during transportation and short-term undercover storage, and will provide a suitable surface for final painting. On-site handling and painting are the responsibility of the contractor, and particular environmental considerations should be taken into account when choosing the paint system for final finishing.

Further Protection on Site

Alumasc recommends that on site a further priming coat be applied, followed by 1 undercoat and 2 gloss coats of an alkyd paint system. All individual elements should receive the first of the gloss coats before fixing, and finished with the final gloss coat after the installation is complete. All exposed surfaces must be treated in this way. It is advisable to take the paint finish inside collars and within the ends of rainwater pipes to avoid the possibility of rust staining.

Care & Maintenance, Storage & Handling

Routine Inspection

Regularly clean out rainwater heads and gutters and ensure that downpipes are clear at all times. Check that joints and fixings are secure by periodic inspection, not less than twice a year, and preferably at the beginning of Autumn and again at the end of Winter. When inspecting an installation, even when well fixed, ladders should not be rested against the gutters.

Repainting

The final paint finish on factory-primed cast iron must be maintained to give the longest service life. A well applied paint system might be expected to last from 5 to 7 years on cast iron without further attention. Regular inspection is recommended.

It is recommended that pre-finished cast iron is maintained as above. It is important that any installation damage to the coating is repaired with the appropriate touch-up paint. Any cut pieces exposing bare metal must be coated with primer and top coat.

Other Maintenance Operations

When cleaning adjacent surfaces, cast iron should be protected against all acids and concentrated alkalis.

Storage and Handling

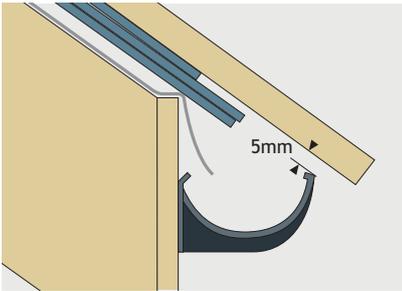
Pre-finished coated rainwater gutters and pipes must be handled with care to prevent scratches and dents. Materials should be stored on a level surface or racking, preferably under secure cover. Uneven fading or water marks on coated and mill finish surfaces may occur if water enters protective packing or goods are stored exposed to sunlight.

Primed goods will have manufacturing blemishes such as grinding and fettling marks, welding will be visible on fabricated items. It is recommended primed material is painted on-site.

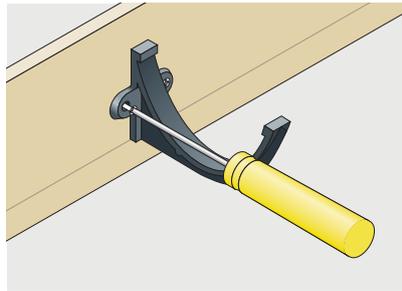
Store seals and sealants under cover and make secure and separate provision for solvents. Dispose of packing materials responsibly.

Installation - Apex Heritage Gutters

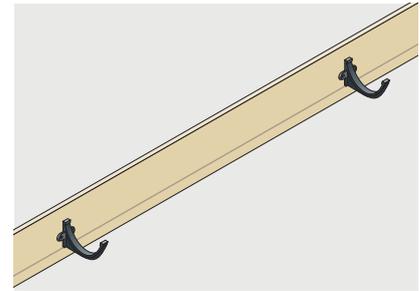
Apex Heritage gutters are available in a choice of four profiles with a range of brackets to accommodate all types of eaves condition. Each profile range can be connected to cast iron pipework systems in either round, square or rectangular. Assembly and installation of each profile range must be considered individually, although general aspects of preparation are common to them all as shown below.



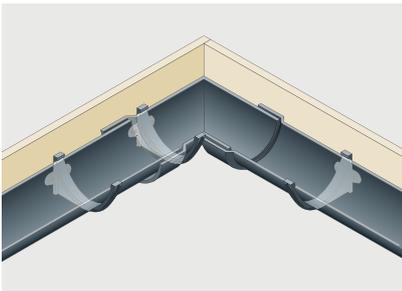
1. Using a straight edge or ruler, shim gutter brackets with 5mm clearance so that the last roof tile or slate will align with the mid point of the gutter.



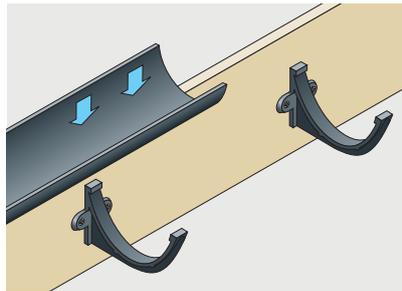
2. Generally, position brackets at 915mm centres allowing additional brackets on either side of where gutter joints will occur.



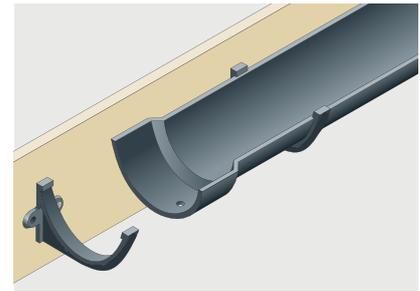
3. Use a string line to set out brackets to a fall of 1:600 to 1:350 (max) or if not possible, level.



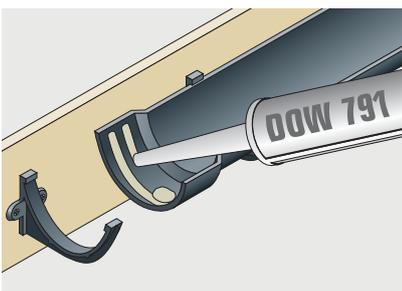
4. Plumb line outlets with gullies at ground level. Position angles, allowing an additional bracket adjacent to the joint with the gutter length.



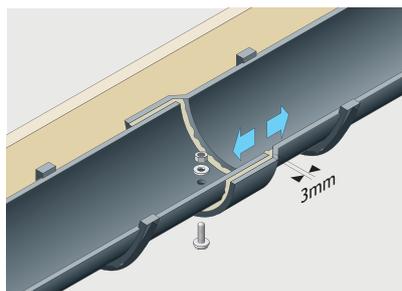
5. Lower the gutter onto the brackets ensuring sufficient clearance for the gutter joint. Clip gutter into bracket.



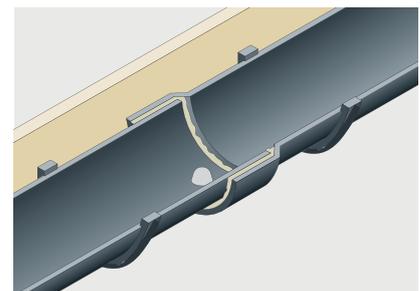
6. Cast gutters overlap at the joint with a spigot and socket. Thoroughly clean and degrease the ends that must be jointed.



7. Apply two 6mm beads of DOW 791 silicone sealant either side of, and around the fixing hole.



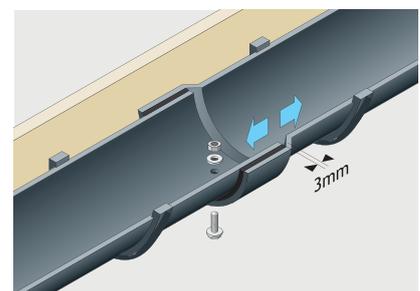
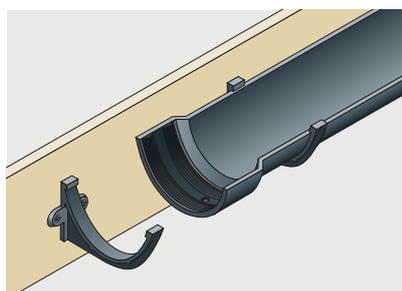
8. Insert the spigot end of the gutter allowing a 3mm expansion gap. Secure joint using bright zinc plated, mild steel M6 x 25mm nut, bolt and washer provided. (Bolt head preferably to underside).



9. Finally, cone-off the exposed bolt stud and nut inside the gutter with a generous application of silicone sealant. Tool off excess silicone around the joint and from external surfaces.

Hydrostrip Alternative Sealing Method

For half round gutters only (nominal sizes 100, 115 and 125mm – 150mm), the unique Alumasc Hydrostrip system is recommended. The Hydrostrip system comprises preformed rubber seals that are quick and easy to install, and totally reliable. Hydrostrip offers a faster and cleaner solution to gutter jointing than traditional mastic jointing sealants.

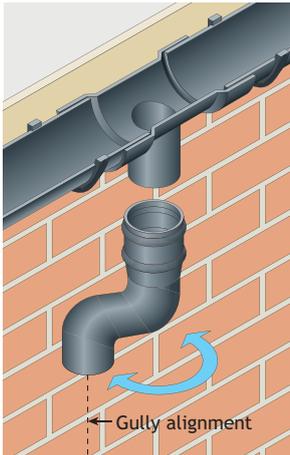


Installation - Apex Heritage Rainwater Pipes

Apex Heritage traditional rainwater pipes have cast pipe sockets either with ears for wall fixing or without for use with holderbats. Installation is generally from the eaves downward.

Saw cuts must be square and free from dents and burrs. A light application of silicone sealant must be applied to both surfaces to ensure a waterproof seal.

Pipe Alignment



Where square or rectangular pipes are being installed and offsets are required, alignment between the gutter outlet and gully must be exact.

Round pipe systems are more flexible to install and offsets can be adjusted and “swung” into alignment with the gully position.

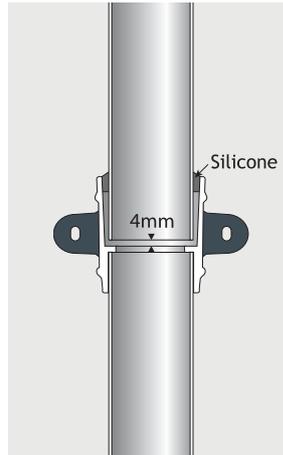
Outlets and Offsets



Commence installation from the gutter outlet by fitting offsets.

Check vertical plumb line positioning and seal spigot and socket joints using DOW 791 silicone sealant.

Pipe Jointing and Fixing



Seal with DOW 791 silicone sealant.

Fix to wall at 2m centres using No12 x 50mm screws. Eared sockets have elongated fixing holes to permit the use of pipe nails.

Tools Required

- String or plumb line
- Tape measure
- Drill
- File
- Masonry bit
- Wall fixing (e.g raw plug)
- Cleaning rags
- Marker pen
- Solvent cleaner
- Posi and plain screwdriver
- Paintbrush
- Hacksaw
- Masking tape
- Mastic gun
- Spirit level
- Protective gloves
- Adjustable spanner

General Installation Sequence

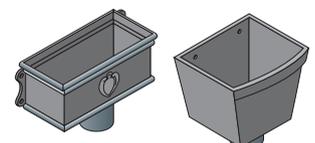
- Complete installation of gutters; alternatively, locate rainwater heads
- Position offsets, bends and branches
- Fit pipes and brackets
- Fit plinth offsets
- Fit access doors and shoes

Sealant

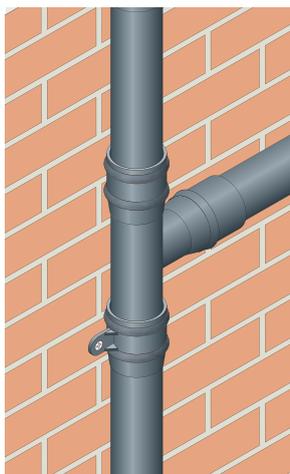
For durable all weather seals and best results, Alumasc recommend the use of DOW 791 silicone sealant.

Rainwater Heads

Fix to masonry through external lugs or preformed holes in back.

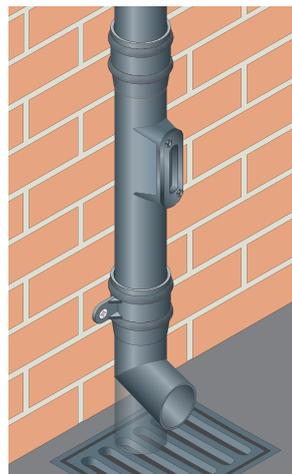


Bends and Branches



Bends and branches are secured into the pipe socket.

Shoes and Access Pipes



At ground level rainwater pipes can terminate with a shoe for free discharge over a gully or be directly connected into the gully.

In the case of direct connections it is recommended that an access pipe fitting is included within 750mm of ground level.