

Specification Document



Marley Alutec
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R10 Rainwater Drainage Systems

2 To be read with Preliminaries/General conditions.

110 GRAVITY RAINWATER DRAINAGE SYSTEM.
Rainwater outlets: As per detail sections below
Gutters: As per detail sections below
Pipework: As per detail sections below
Accessories outlets: As per detail sections below

R10 Rainwater Drainage Systems

210 DESIGN
Design: Complete the design of the rainwater drainage system
Standard: To BSEN 12056-3:2000, clauses 3-7 and National Annexes
Proposals: Submit Drawings, technical information, calculations and manufacturer's literature.

221 COLLECTION AND DISTRIBUTION OF RAINWATER
General: Complete, and without leakage or noise nuisance

230 DESIGN PARAMETERS - GENERAL
Roof and gutter construction and finish: As per detail sections below
Design Rate of rainfall: As per BSEN 12056-3:2000, National Annex
NB.2 - Category 1 (Eaves gutters) Category 2 (Roof outlets)
Available capacity of existing below ground drainage (maximum):
TBC

311 Manufacturer: Marley Alutec, Unit 1 (G-H), Hudson Road,
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Tel: 01234 359438, Fax: 01234 357199.
Email: enquiries@marleyalutec.co.uk
Reference: Aligator snap fit Boxer aluminium rainwater system
Profile: Box
Size: 160x100
Flow Performance: As stated in Alutec literature.
Outlet Size: 102x76mm pipe connection
Type / grade: Marine grade extruded aluminium to BS EN 755-2:2008
Finish: Polyester powder coated to BS EN 12206-1:2004
Colour: RAL 7012
Functional life expectancy: 50 years
Jointing: Internal Snap fit joint union with integral silicone spacers and sealed with Alutec sealant
Fixing: BS EN 1462:2004 Class H, concealed fascia brackets at 750mm centres. Fixed with Alutec austenitic stainless steel 32mm x No. 10 round head austenitic stainless steel screws

Execution

- 600 PREPARATION specified in this section, ensure that:
- Below ground drainage is ready to receive rainwater or that the discharge can be dispersed by approved means to prevent damage or disfigurement of the building fabric.
 - Any specified painting of surfaces which will be concealed or inaccessible is completed.
- 605 INSTALLATION GENERALLY:
- Install pipework/gutters to ensure the complete discharge of rainwater from the building without leaking.
 - Obtain all components for each type of pipework/guttering from the same manufacturer unless specified otherwise
 - Provide access fittings and rodding eyes as necessary in convenient locations to permit adequate cleaning and testing of pipework.
 - Avoid contact between dissimilar metals and other materials which would result in electrolytic corrosion.
 - Do not bend plastics or galvanised steel pipes.
 - Adequately protect pipework/gutters from damage and distortion during construction. Fit purpose made temporary caps to prevent ingress of debris. Fit all access covers, cleaning eyes and blanking plates as the work proceeds.
 - Where not specified otherwise use plated, sherardised, galvanised or nonferrous fastenings, suitable for the purpose and background, and compatible with the material being fixed.
- 610 FIXING AND JOINTING GUTTERS:
- Fix securely at specified centres and at all joints in gutters, with additional brackets near angles and outlets.
 - Provide for thermal and building movement when fixing and jointing, and ensure that clearances are not reduced as fixing proceeds.
 - Seal as specified to make watertight.
 - Insert sealant to groove of rubber seal as specified.
 - Remove surplus, squeezed out compound and neatly clean off.
 - Ensure that roofing underlay is dressed into gutter.
- 615 SETTING OUT EAVES GUTTERS:
- Gutters must be installed level or to a fall of 1:600 unless otherwise specified. 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 outlets to align with connections to below ground drainage, unless shown otherwise on drawings.
- 630 RAINWATER OUTLETS: Ensure that:
- Outlets are securely fixed before connecting pipework.
 - Junctions between outlets and pipework can accommodate all movement in the structure and pipework.
- 435 FIXING PIPEWORK:
- Fix securely at specified centres plumb and/or true to line.
 - Make changes in direction of pipe runs only where shown on drawings unless otherwise approved.
 - Fix branches and low gradient sections with uniform and adequate falls to drain efficiently.
 - Fix externally socketed pipes/fittings with sockets facing upstream.
 - Provide additional supports as necessary to support junctions and changes in direction.
 - Fix every length of pipe at or close below the socket collar or coupling.
 - Provide a load bearing support for vertical pipes at not less than every storey level. Tighten fixings as the work proceeds so that every storey is self supporting and undue weight is not imposed on fixings at the base of the pipe.

- Isolate from structure where passing through walls or floors and sleeve pipes as specified in Section P31.
- Provide for thermal and building movement when fixing and jointing, and ensure that clearances are not reduced as fixing proceeds.
- Fix expansion joint pipe sockets rigidly to the building and elsewhere use fixings that allow the pipe to slide.

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JOINTING PIPEWORK/GUTTERS:

- Joint using materials, fittings and techniques which will make effective and durable connections.
- Joint differing pipework/gutter systems with adaptors recommended by manufacturer(s).
- Cut ends of pipes to be clean and square with burrs and swarf removed. Chamfer pipe ends before inserting into ring seal sockets.
- Ensure that jointing or mating surfaces are clean, and where necessary lubricated, immediately before assembly.
- Form junctions using fittings intended for the purpose ensuring that jointing material does not project into bore of pipes, fittings and appliances.
- Remove surplus flux/solvent/cement/sealant from joints.

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COATED PIPEWORK/GUTTERS:

- Make good to coatings after cutting and any other damage or recoat, as recommended by the manufacturer.

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ELECTRICAL CONTINUITY:

- Where specified, use clips or suitable standard couplings supplied for the purpose by pipework manufacturer to ensure electrical continuity at all joints in metal pipes with flexible couplings and which are to be earth bonded.

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ACCESS FOR TESTING AND MAINTENANCE:

- Install pipework and gutters with adequate clearance to permit testing, cleaning and maintenance.
- Position access fittings and rodding eyes so that they are not obstructed by other pipework, framing, etc.

COMPLETION

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TEST GENERALLY:

- Inform CA sufficiently in advance to give him a reasonable opportunity to observe tests.
- Check that all sections of installation are free from obstruction and debris before testing.
- Provide clean water, assistance and apparatus for testing as required.
- Carry out tests as specified. After testing, locate and remedy all defects without delay and retest as instructed.
- Keep a record of all tests and provide a copy of each to the CA.

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GUTTER TEST:

- Block all outlets, fill gutters to overflow level and after 5 minutes closely inspect for leakage.

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MAINTENANCE INSTRUCTIONS:

- At completion, submit printed instructions recommending procedures for maintenance of the rainwater installation including full details of the recommended inspection, cleaning and repair procedures.

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IMMEDIATELY BEFORE HANDOVER:

- Remove construction rubbish and debris from all roofs and gutters. Where possible, sweep and remove fine dust which may enter rainwater systems. Do not sweep or flush dust or debris into the rainwater system.
- Remove swarf, debris and temporary caps from the entire rainwater installation.
- Ensure that all access covers, rodding eyes, outlet gratings etc. are secured complete with all fixings.