ALUMASC

RAINWATER SYSTEMS

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July 2013

# Aluminium, Cast Iron & Steel Rainwater Systems

## Featuring Harmer LCC Soil & Waste Systems

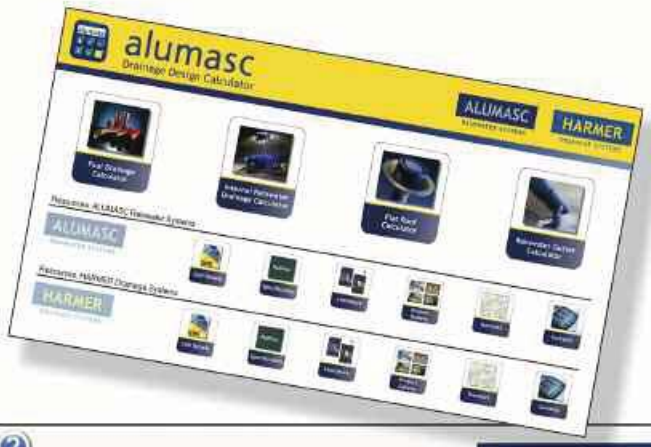


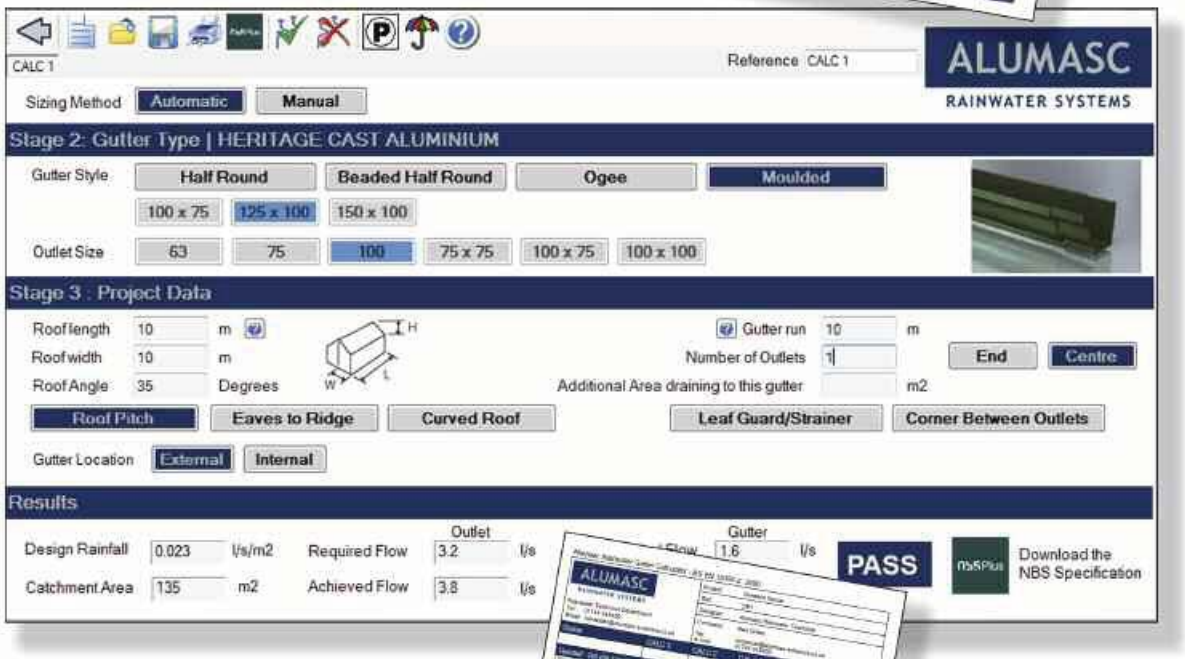


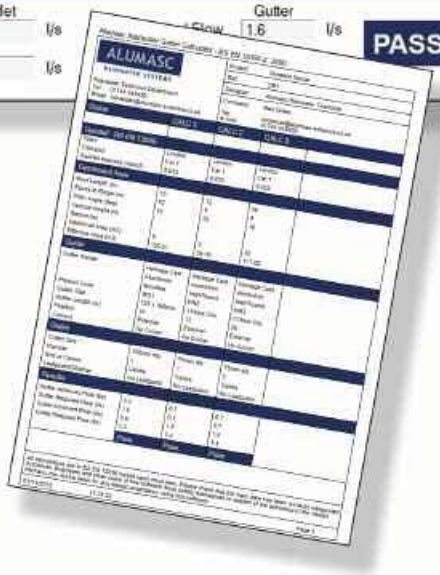
# Maintaining a Flow of Information

## www.alumascrainwater.co.uk

The Alumasc Rainwater website provides a wealth of information on all aspects of rainwater solutions, including gutters, downpipes and associated fittings. Also included are FAQs, file downloads for NBS specification clauses, COSHH information and a CAD library.

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Available on the iPad App Store

## Drainage Design Calculator

Architects and building service engineers can now design and quantify all their Rainwater Drainage requirements using Alumasc's dedicated design software.

### Key Features

- Eaves drainage gutter sizing and pipe calculator for cast and contemporary gutter types
- Category 2 and 3 Flat Roof Drainage Calculator linked to local rainfall data
- Hyperlinks to product literature, DWF files and application specific NBS Specification Clauses

## Technical Support

Alumasc Rainwater products are backed-up by comprehensive technical literature and by hands-on project support starting with technical and design advice, and extending through site installation to recommendation of appropriate maintenance regimes. Implementation is led by the Alumasc Rainwater Manager appointed to the project.

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# Alumasc – An Introduction

Alumasc Exterior Building Products is part of the Alumasc Group plc. The Group has over 800 employees, generating turnover of around £110 million. The aim is to focus on high quality, environmentally responsible building products within the construction arena in order to deliver first class customer service, long-term solutions and lasting relationships.



## About Alumasc

Alumasc Exterior Building Products (Alumasc) is a leading supplier of premium products and systems for specification. The Company has been a major force in the UK construction industry for 70 years, during which time Alumasc products and systems have been used on some of Europe's most prestigious buildings.

Alumasc ensures a high quality of product specification and installation, delivering risk-free, zero-defect solutions. The Company's commitment to making ongoing improvements is demonstrated through its accreditation to the ISO 14001: 2004 Environmental Management Standard.

By pursuing sustainable building products, systems and manufacturing processes, Alumasc aims to offer specifers a wide choice of design alternatives, with long-term peace of mind. Recognised brands such as Harmer, Apex, Derbigum, Euroroof, ZinCo, Hydrotech, Firestone, Armaseam and M.R., together with Alumasc's well-known architectural rainwater range have been independently certified, and in some cases have a lifespan in excess of 60 years or for the life of the building.

## Services and Support

Alumasc leads the way in the field of construction product and system manufacture and the delivery of proven solutions. This success is founded on four key areas:

### Premium Products

A constantly evolving range of quality proven, world class products and systems, fully accredited to UK, European and North American Standards.

### Technical Support

Comprehensive data for specification and use of all products and systems is available in published form, and on the company website. This is backed up by proactive support on a project basis, led by specialist area managers and using the latest CAD and calculation technology.

### Approved Stockists

Delivery of Alumasc products is controlled through a network of approved suppliers. This allows close control over all matters to ensure first class customer service.

### Warranties

All Alumasc products come with a company backed assurance as to their quality, life expectancy and suitability for purpose ensuring specifiers and end users long-term peace of mind.

alumasc
EXTERIOR BUILDING PRODUCTS





# Quality and Sustainability

In addition to complying with environmental legislation, Alumasc is committed to developing its own measures to limit the adverse effects of its activities on the environment. To this end, Alumasc operates an environmental policy that fully integrates all aspects of company activities.



## Quality

### ISO 9001: 2008

Alumasc operates a quality management system which is independently audited to ISO 9001: 2008. The ISO 9001 framework governs the management of many aspects of Alumasc support services, manufacturing and transport operations. Alumasc extends quality management to its network of approved installers for single source accountability and peace of mind.

## Sustainability

Alumasc actively pursues sustainability in the full range of products it offers and, with its partners and its suppliers, is committed to putting consideration for the built and wider environment at the core of all aspects of current business and future development.

### ISO 14001: 2004

Alumasc's manufacturing sites at St Helens, Merseyside and at Burton Latimer, Northamptonshire are audited to the ISO 14001:2004 Environmental Management Standard. Alumasc is committed to achieving improvements across all of its operating sites, not only as a good neighbour to the surroundings of manufacturing plants, but in the responsible sourcing of raw materials and monitoring of the impact on the environment as a whole.

### BREEAM Standards

BREEAM points, as a framework for analysis and scoring, allow easy comparison of the relative merits of different construction types and also comparisons between different construction product groups. The BREEAM points system promotes the use of materials with a proven sustainable message and allows designers to differentiate between products with true ecological credentials and those not achieving the benchmark.

Indicative ratings for building materials given in the BRE Green Guide to Specification also allows designers to choose those products or construction methods that will be most beneficial in contributing to a high BREEAM points score.

Aluminium rainwater goods and fascia soffit systems are part of the range of high scoring Alumasc solutions. Promotion of these responsibly sourced materials brings clarity to the specification process thus achieving the desired effect of minimising the environmental impact of the construction process.

## Testing and Certification

### Applicable Standards

BS EN 12056-3
Gravity drainage systems inside buildings, Part 3 Roof drainage layout and calculation.

BS EN 8530 (Formerly BS 2997)
Specification for traditional-style half round, beaded half round, victorian ogee and moulded aluminium rainwater systems.

BS EN 755
Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles.

BS EN 1706:2010
Aluminium and aluminium alloys - Castings - Chemical composition and mechanical properties.

BS EN 1559
Founding - Technical conditions of delivery.

BS EN 1462:2004
Brackets for eaves gutters - Requirements and testing.

BS EN 12206-1:2004
Paints and varnishes - Coating of aluminium and aluminium alloys for architectural purposes.

BS 460: 2002
Cast iron rainwater goods. Specification.

BS 437: 2008
Specification for cast iron drain pipes, fittings and their joints for socketed and socketless systems.

British Board of Agrément
Certificate No. 86/1671
Alumasc Rainwater Systems

RIBA Assessed CPD Seminar
Rainwater Disposal from Pitched Roofs

# Alumasc Manufacturing and Support Services

Alumasc is one of the UK's leading manufacturers of aluminium and cast iron products for the construction industry. Our expertise in aluminium casting, extrusion and fabrication, as well as iron castings, stems from a proven track record accumulated over 60 years, enabling the provision of unrivalled technical support for designers, specifiers and contractors.

## Manufacturing

Alumasc's UK casting and fabrication facilities employ both traditional and cutting edge production methods. Alumasc aluminium rainwater goods are manufactured and independently assessed at the company's Burton Latimer site under the ISO 14001:2004 Environmental Management Standard. This not only ensures that upstream production processes have been monitored for their environmental impact, but that due consideration is taken for all aspects of packaging, transport and disposal, in order to deliver as sustainable a rainwater product as practicable.

Cast iron and steel rainwater goods are manufactured in dedicated factories abroad.

## Performance

Alumasc rainwater solutions are designed to give optimum performance over their lifespan. In every aspect of material choice or detailing decision the aim is to produce premium, fit for purpose products and systems. This ethos has resulted in Alumasc being associated with innovative projects that have led the way in construction performance, stood the test of time and demonstrated good design.

## Materials

Alumasc offer a variety of aluminium finishes to the specifier. Whether you are seeking to replicate a period cast iron or contemporary appearance, Alumasc has the solution. Traditional cast aluminium gutter profiles and complementary downpipes can be finished to replicate cast iron to special order – ideal for period refurbishment or where a traditional design is required.

Alumasc's contemporary aluminium rainwater ranges include dry joint extruded and wet joint folded gutter profiles, which can be used in combination with various downpipes to fulfil different functional requirements (eg, high security) and for different visual effects to suit the building context. Products can be supplied in a plain mill finish or in Alumasc's Raincote range of polyester powder coated finishes.

Alumasc's sand cast iron rainwater range combines the best of traditional qualities with modern technology to suit today's construction needs. Innovations include pre-finishing and advanced jointing techniques. Comprehensive components from stock can also be complemented by a made-to-order service.

The Harmer LCC cast iron soil and waste system is made to original imperial dimensions for use in refurbished and historic buildings. The standard finish for all pipes and fittings is factory-dipped bitumen.

Alumasc's steel rainwater system offers a contemporary, eco-friendly and cost effective alternative to uPVC gutters and downpipes.

## Support Services

Comprehensive information and advice for specification and use of our rainwater products and systems is provided through our technical literature, website and the Alumasc Technical Services department. This is backed by proactive support on a project-by-project basis, led by specialist Area Managers.

## Product Development

Alumasc routinely design, manufacture and patent new rainwater products for the UK and world markets.

Ongoing research and development ensures that our offer comprises high quality, world class products and systems that are fully accredited to UK and European standards.

Development of existing sound products and practices is central to the success of Alumasc and key to the way in which we provide our proven solutions. Equally, the basis for any new and innovative development is grounded in the knowledge and experience Alumasc has of its core manufacturing materials.

Alumasc's commitment to ongoing development and the promotion of best practice is reflected in our CPD programme which keeps the industry abreast of new standards and product solutions.





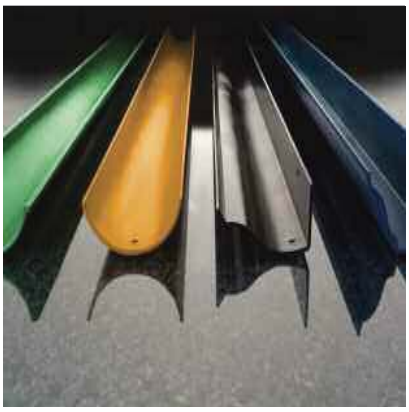


METAL GUTTER MANUFACTURERS ASSOCIATION

# Benefits of Aluminium

Aluminium is a metal with exceptional characteristics, both in respect of its functional performance and sustainable credentials. It has become increasingly important in the construction industry, being used in ever more innovative ways by designers and specifiers.









## Aluminium

### A 'Green Material'

To be deemed 'green', a material or product should be recyclable, sustainable and versatile. Aluminium has all of these properties and its production is strictly monitored for responsible sourcing of raw materials.

Aluminium has a light weight-to-strength ratio, which means it is strong yet economical. The reduced weight provides benefits in material transportation and application. Aluminium can also be formed in a variety of ways to accommodate off-site fabrication.

### Durable and Strong

Aluminium is resistant to corrosion and does not rust. It is weather-proof and is unaffected by the effects of UV rays, ensuring optimal performance over its lifetime.

Mixed with small amounts of other metal to form an alloy, aluminium can provide the strength of steel at only one third of the weight.

### Recyclable

Historically, aluminium has proven to be one of the most important materials in successful recycling programs. It offers a high scrap value, widespread consumer acceptance, and enjoys significant industry support.

Most aluminium products are made from 100% recycled scrap. The recycling process does not result in any loss of the materials' basic qualities and properties

Recycled aluminium offers significant energy benefits as remelting used aluminium requires only 5 percent of the energy needed to produce primary metal. As aluminium can be recycled indefinitely it need never be disposed of in landfill.

### Versatile

Aluminium and its alloys can be easily formed and shaped by rolling, extrusion, forging and casting, characteristics that reflect the wide choice of form and visual appearance of aluminium in construction applications.

### The Benefits at a Glance

- Corrosion resistant
- Lightweight
- Durable and strong
- Formable
- High strength to weight ratio
- Cryogenically strong
- Electrically conductive
- Non-combustible
- Non-magnetic
- Non-sparking
- Non-toxic
- Resilient
- Thermally conductive
- Fully recyclable

# Benefits of Cast Iron and Steel

Cast iron, as a building material, has been around for much longer, and advances in technology have ensured that today's products are fully attuned to modern construction needs. Steel is an ideal metal for use as a roof drainage system. It's lighter than Cast Iron and Aluminium, making it easy to handle on site and offering a contemporary finish.





## Cast Iron

### High Strength

The crystalline structure of cast iron gives the material high strength and robustness. Once installed, cast iron components resist impact damage even in exposed areas, such as shopping centres, carparks and schools.

### Durability

Inherent corrosion resistance coupled with a primed and a painted finish ensures that cast iron components will need minimal maintenance during the lifetime of the rainwater installation.

### Recyclable

Made with almost 100% recycled scrap, cast iron can be recycled indefinitely, and therefore should not be disposed of in landfill.

### The Benefits at a Glance

- Corrosion resistant when a protective coat is applied
- Durable and strong
- Impact resistant
- Non-combustible
- Non-toxic
- Fully recyclable

## Steel

### A 'Green Material'

Steel is a 'green' building material which is recyclable and versatile in its use. It has a high strength to weight ratio which means its strong yet economical and can be used to facilitate faster construction process such as off site fabrication. Steel is 98% recyclable, with recycled steel only requiring 40% of the energy to produce steel from its virgin state.

### Durable and Strong

Steel is extremely durable with excellent tensile strength which gives the system robustness throughout its life on the building. It is unaffected by UV rays unlike plastic gutters so they won't colour fade or reduce the integrity of the system.

### Life Expectancy

Galvanised steel has a long life expectancy in the excess of 50 years in most rural environments and 20-25 years plus, in urban and costal environments. The longevity is further improved with the polyester powder coating option which is applied directly onto the galvanised finish.

### Low Maintenance

Galvanised steel is very durable and therefore needs little maintenance, the zinc coating is inherently resistant to corrosion from the environment . It only requires an occasional washdown to clean any dirt and debris.

### The Benefits at a Glance

- Corrosion resistant
- LIghtweight
- Durable and strong
- Fully recyclable
- Cost-effective solution
- Minimum environmental impact



# Alumasc Aluminium Rainwater Systems – Overview

Alumasc Rainwater Systems in aluminium, combine modern engineering and high performance materials to offer unrivalled choices and solutions for designers associated with fast track newbuild or refurbishment projects.





## Traditional Aluminium

### Heritage System

A stock range of traditional cast aluminium gutter profiles (half round, beaded half round, beaded deep run, victorian ogee and moulded), and traditional extruded aluminium pipework (round, square or rectangular), all in a choice of sizes and supported by a full range of fittings. Traditional jointing and fixing techniques are ideal for period and restoration projects, in a simple-to-install lightweight system. Can be finished to replicate cast iron, or with BBA certificated powder coatings in a wide range of colours - combining a striking retro look with the latest in paint technology.

Complementary rainwater heads for downpipes are available to suit. Can be finished to replicate cast iron, or with BBA certificated powder coatings in a wide choice of colours.

Alumasc can also create bespoke solutions to meet individual project requirements.

## Contemporary Aluminium

### Aqualine Gutter System

An extruded, high capacity gutter system in five alternative styles, each available in a choice of profile sizes. Tailor-made for today's fast track construction programmes in contemporary building design. Innovative secret fix bracketry, all weather 'dry' jointing fully accommodating thermal movement.

### GX Gutter System

A pressed gutter system designed for traditional wet jointing on site. Offered in three profiles (joggle, smooth and moulded). High capacity, uncluttered appearance, and very cost-effective.

### Flushjoint Downpipe System

A range of extruded round, square and rectangular downpipes with concealed spigots, giving a smooth, clean appearance. High impact resistance and offers excellent rigidity.

### Guardian Downpipe System

A range of extruded flush fitting security pipes in a choice of profiles. Guardian pipework has concealed brackets and concealed jointing, providing a high level of security.

All four contemporary aluminium gutter and downpipe systems are available in a choice of BBA certificated powder coatings.

The Aqualine, GX, Flushjoint and Guardian systems are interchangeable. Flushjoint and Guardian downpipes are also compatible with Heritage gutters.

In all cases, Alumasc can tailor designs to meet individual project requirements.



# Alumasc Aluminium Rainwater Systems – Overview of Finishes

Alumasc Aluminium Rainwater Systems are available in plain mill finish or in the Raincote range of BBA approved, factory-applied polyester powder coatings.

## Traditional & Contemporary Aluminium Rainwater Systems: In-House Powder Coatings

Alumasc's in-house powder coating plant gives both the control and the freedom to produce a range of colour finishes to a level not typically available in the construction industry. Utilising the technologies and procedures adopted for its automotive precision castings division, Alumasc benefits from high specification coating techniques that fulfil the rigors of testing prescribed by some of the worlds leading vehicle producers. Finishes of this quality maintain their appearance even when subject to harsh geographical weather conditions.

The aluminium undergoes a series of pretreatments to provide the ideal prepared surface to receive an electrostatically applied polyester powder in the chosen colour. This is then 'baked' and bonded to the fitting in a carefully controlled oven; the complete process is achieved on a continuous line to obtain the best results. The performance of polyester powder coated rainwater systems greatly exceeds that of site painted systems.

## Approvals & Quality Control

Polyester powder coating is in accordance with BS EN 12206-1:2004. This refers to the coating of aluminium and aluminium alloys for architectural purposes. In the case of rainwater systems it is accepted that such coating is both decorative and protective. Alumasc systems will certainly be finished to this standard, and will in most cases exceed it.

Along with independent auditing to the ISO 9001:2008 Quality Management Standard, Alumasc maintains BBA certification for the powder coating of its aluminium rainwater goods in respect of longevity of performance and colour fastness - British Board of Agrément Certificate No. 86/1671.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE No 86/1671

RAL 1011m Brown Beige

RAL 1013m Pearl White

RAL 1021m Cadmium Yellow

RAL 2002m Vermilion

RAL 3003m Ruby Red

RAL 3005m Wine Red

RAL 5003m Sapphire Blue

RAL 5010m Flower Blue

RAL 6005m Moss Green

RAL 6018m Yellow Green

RAL 7005m Mouse Grey

RAL 7006m Beige Grey

RAL 7012m Basalt Grey

RAL 7015m Slate Grey

RAL 7016m Anthracite Grey

RAL 7024m Graphite Grey

RAL 7036m Platinum Grey

RAL 7037 Dusty Grey

RAL 7038 Agate Grey

RAL 8017m Chocolate Brown

RAL 8019m Grey Brown

RAL 9006m Metallic Silver

RAL 9006g Metallic Silver

RAL 9016m White

RAL 9017m Black

BLACK/TEX Textured Black

## Choice of Colour

The standard aluminium Raincote range comprises 26 colours with additional colours with a BS or RAL number available to special order, subject to quantity and cost.

The colours reproduced on this page are for general guidance only.

Please contact Alumasc Technical Services for further information on colour choice and samples.

# Alumasc Cast Iron Rainwater/Traditional Soil & Waste Systems – Overview

Alumasc Rainwater Systems in cast iron, combine modern engineering and high performance materials to offer unrivalled choices and solutions for designers associated with fast track newbuild or refurbishment projects.





## Cast Iron: Standard

### Apex Heritage System

A comprehensive, traditional range of four gutter and three downpipe profiles, all in a variety of sizes, together with associated fittings and accessories. The gutters include a choice of half round, beaded half round, victorian ogee and moulded. The downpipes are circular, square or rectangular.

Fittings and accessories include all the necessary items expected of a truly comprehensive rainwater system, ranging from stopends to extended bracketry, and shoes to hopperheads.

The system is available in a range of 8 standard colour options in a high quality two-pack epoxy primer and top coat finish. By removing the need for on-site pre-installation painting its offers up to 60% saving on time and 30% on cost. It is also available in a factory primed finish.

## Cast Iron: Made to Order

### Apex Heritage System

No standard product range can hope to satisfy all the stylistic options for new building, nor address the challenges of exact replacement for refurbishment and restoration. Apex Heritage Cast Iron Made to Order is specifically designed to meet these needs.

A range of decorative rainwater heads, for example, are readily available because Alumasc holds the patterns and can produce the items to order. The number of available made-to-order designs increases as additional patterns are created for new commissions.

A variety of different designs is possible for decorative earbelts, and additional enrichments can be incorporated into the rainwater heads where required.

## Harmer LCC Cast Iron

A traditional socketed soil and waste pipe and fittings system manufactured to original imperial dimensions, created specifically for use in building refurbishment and historic building contracts where there is a need to faithfully reproduce period detail. This ensures a compatible interchange between old and new pipes and fittings.

An extensive range of fittings and accessories provides great flexibility in installation, while special detailing requirements can be catered for through Alumasc's fabrication and pattern making workshops.

Special welding techniques are also used to fabricate components where the alternative of making a pattern for casting would not be economic.

The standard finish for all pipes and fittings is factory-dipped bitumen.

APEX™

# Alumasc Cast Iron Rainwater/Traditional Soil & Waste Systems – Overview of Finishes

Alumasc Cast Iron Rainwater systems are available in a range of 8 standard colour options to suit tradition heritage projects. Alumasc's in-house paint plant produces a Certified Factory painted high quality two-pack epoxy primer and a top coat finish.

## Apex Heritage Cast Iron Rainwater - Painted

The renowned quality of Apex Heritage Cast Iron is available pre-painted on all four gutter profiles (Half Round, Victorian Ogee, Beaded Half Round and Moulded) plus the full range of circular or square / rectangular downpipes with authentic socketed joints.

Now available in 8 standard colours to suit traditional heritage projects, other RAL colours are available on request

The high performance two-pack epoxy primer and a top coat finish is factory-applied under controlled conditions and has been successfully developed to give a smooth and long lasting finish to the cast iron. The new certified factory painted finish marque guarantees the product has received the fully painted finish. This is certified with approved stickers on the product giving both the client and specifier piece of mind.

By removing the need for on-site pre-installation painting Alumasc's painted cast iron offers the following benefits:

- 60% saving on time, as there is no need to paint several coats on site
- Quicker installation and less disruption on site
- 30% saving on cost as there is no need for extra labour to paint on site
- The painted finish only costs 20% more than the primed finished product
- Durable, even and long lasting finish
- Independent test results conducted on the finish prove excellent resistance to salt, heat and frost

RAL 3009 Oxide Red

RAL 3020 Traffic Red

RAL 5010m Flower Blue

RAL 6005 Moss Green

RAL 7016 Anthracite Grey

RAL 8015 Chestnut Brown

RAL 9005 Black

RAL 9016 White

## Apex Heritage Cast Iron Rainwater - Primed

A factory primed finish is also available with a one coat oxide primer. This primer will give protection against corrosion during transportation and short-term undercover storage and will provide a suitable surface for additional painting. On site handling and painting are the responsibility of the contractor.

Alumasc recommends that on site 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 gloss coats before fixing, and finished with the final gloss coat after the installation is complete. It is advisable to take the paint finish inside collars and within the ends of rainwater pipes to avoid the possibility of rust staining.

## Harmer LCC Traditional Cast Iron Soil & Waste Systems

The pipes and fittings are factory-dipped in bitumen in accordance with BS 416. Where gloss painting is required, it is advisable to contact Alumasc technical services on 01744 648400.



Painted finish (RAL 9005 shown)



LCC bitumen finish

# Alumasc Steel Rainwater System – Overview and Finishes

The Alumasc Steel Rainwater system offers a contemporary, eco-friendly and cost effective alternative to plastic gutter systems, available in a galvanised finish or a choice of standard colours to suit both commercial and domestic projects.



## Steel: Overview

The gutter is available in a choice of four widths in the popular Half Round profile along with connecting round downpipe system in two sizes together with associated fittings and accessories including Rainwater Diverters and unique steel hopper head. The Gutter system provides high flow capacity due to the larger inlet funnels on the outlets.



## Steel: Finishes Overview

### Standard Colour Finishes

Alumasc steel is available in a plain galvanised finish or in a highly durable and attractive polyester pre-coated black finish.

Galvanised Steel

RAL 9005m Black

The colours reproduced on this page are for general guidance only.

Please contact Alumasc Technical Services for further information on colour choice and samples.

### Additional Colour Finishes

Alumasc steel is also available to order in a range of 6 contemporary colours, which are galvanised and then polyester power coated. Additional colours available on request.

RAL 6005m Moss Green

RAL 7016m Anthracite Grey

RAL 7037 Dusty Grey

RAL 8004m Copper Brown

RAL 8014m Sepia Brown

RAL 9002m Grey White

# Alumasc Aluminium Rainwater Systems – Product Selector

## Aluminium Rainwater Systems

### Traditional Rainwater Systems

A range of traditional cast aluminium gutter profiles and extruded aluminium pipework with cast sockets and fittings.

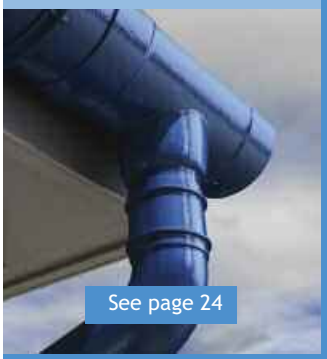


See page 20



### Heritage Gutters and Pipes: Standard

A range of traditional cast aluminium gutter profiles, half round, beaded half round, beaded deep run, victorian ogee and moulded, supported by a full range of fittings.



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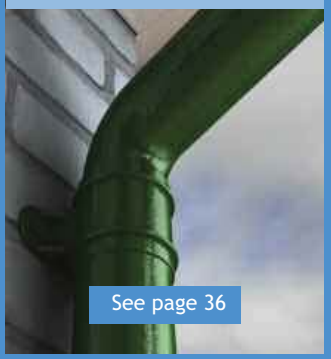
See page 32

Traditional extruded aluminium pipework with cast sockets and fittings, in round, square or rectangular section in a choice of sizes. Complementary rainwater heads are available to suit.



See page 36



See page 40

### Heritage Non-Standard Products

Alumasc can design and manufacture a variety of gutters and pipes to create integrated bespoke solutions. Ornate holderbats and earbelts can be detailed to provide a unique appearance.



See page 97



# Alumasc Aluminium Rainwater Systems – Product Selector

## Aluminium Rainwater Systems

### Contemporary Rainwater Systems

Contemporary aluminium gutter profiles and downpipes to give a modern, smooth and uncluttered appearance to all new build contracts.






See page 44

### Aqualine Gutters

A range of contemporary extruded aluminium gutter profiles in five styles, each in a choice of sizes. Complete with innovative secret-fix brackets.





See page 46

### GX Gutters

A range of contemporary pressed aluminium gutter profiles, in three styles, for traditional wet jointing on site. Suited for applications where maximum capacity gutters are required.





See page 58

### Flushjoint Downpipes

A range of contemporary extruded aluminium downpipes, round, square and rectangular, with concealed spigots. High impact resistance.





See page 66

### Guardian Downpipes

A range of contemporary extruded aluminium security downpipes designed for mounting flush with the building fabric. The downpipes have concealed brackets and concealed jointing.





See page 76

# Alumasc Cast Iron Rainwater/Soil & Waste Systems – Product Selector

## Cast Iron Rainwater/Soil & Waste Systems

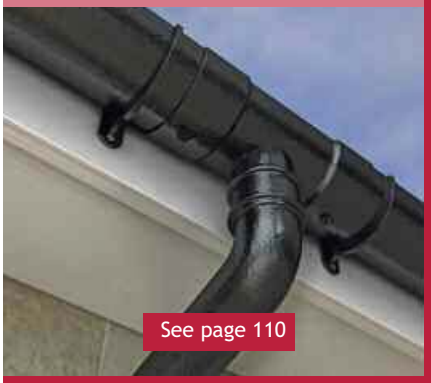
### Apex Heritage Rainwater System

A comprehensive range of traditional gutter and downpipe profiles, in various sizes, incorporating all the architectural features required for new, refurbished or restored buildings, but in accord with modern fast track building methods.


See page 106

### Apex Heritage Gutters and Pipes: Standard

Four gutter profiles, half round, beaded half round, victorian ogee and moulded, supported by a full range of fittings and fixtures.

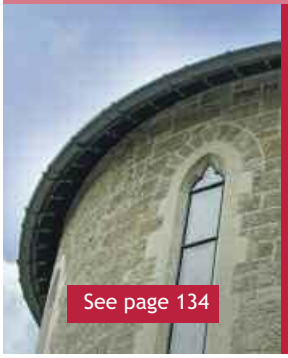

See page 110

Three downpipe profiles, in round, square and rectangular section in a choice of sizes.


See page 120

### Apex Heritage Products: Made to Order

Made to order components extend the choices available with stock items, fully addressing the challenges of exact replacement for refurbishment and restoration projects, as well as satisfying the stylistic options for new building.

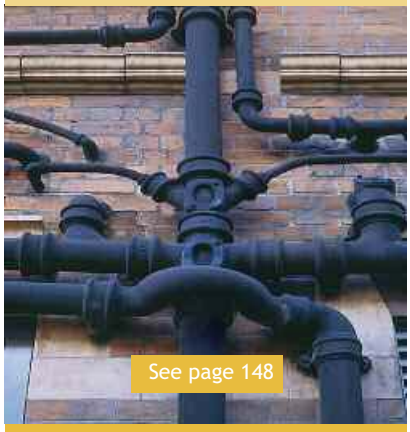

See page 134


See page 135


See page 137

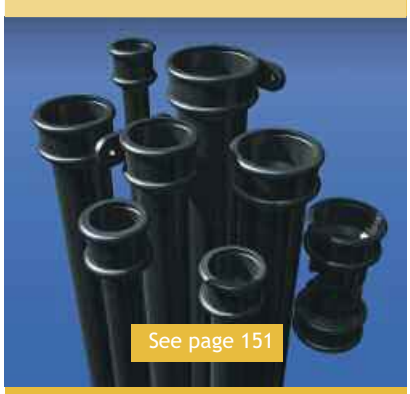
### Harmer LCC Soil & Waste

Traditional socketed cast iron pipes, fittings and accessories, made to imperial dimensions, and created to faithfully reproduce period detail in refurbishment and historic building contracts. Special detailing requirements can be fabricated in Alumasc's workshops.


See page 148

### Harmer LCC Pipes

Made in various lengths and diameters, they are available with or without ears, or can be double-collared.


See page 151

### Harmer LCC Fittings

Holderbats, loose and slip couplings, socket reducers, variously angled bends, swan necks, diminishing pieces, single and double branches with or without access, bossed pipes,shoes and P traps are all available to create wide-ranging configurations.


See page 153

# Alumasc Steel Rainwater Systems – Product Selector

## Steel Rainwater System

### Alumasc Steel System

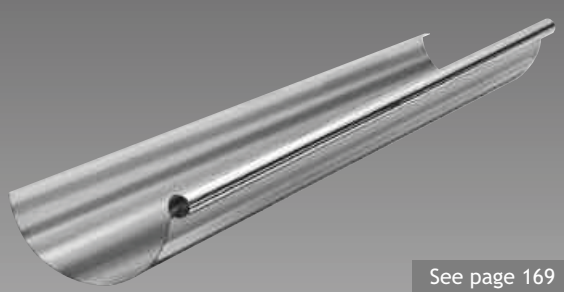
A lightweight contemporary steel gutter and downpipe system available in the high flow half round profile, in a choice of widths, along with a connecting round downpipe system. Ideal for traditional and modern buildings both new build and refurbishment.



See page 166

### Gutters

**Half round gutters available in fours sizes with a range of fixtures and fittings.**



See page 169

### Pipes

**Circular downpipes available in two sizes to suit the gutter range, available with fittings and fixtures.**



See page 170

# Alumasc Rainwater Systems – Project Gallery

Alumasc aluminium and cast iron rainwater systems offer specifiers functional and stylistically appropriate solutions to rainwater drainage across all styles of building from traditional to contemporary.

Alumasc has a long and successful track record in architectural rainwater design.



**Private House,** Heritage



**Broomlands,** Heritage



**The Lancasters,** Apex Heritage



**Queens University,** Apex Heritage

Project Listing ■ Private House, Shrewsbury ■ Broomlands, Tunbridge Wells ■ Queens University, Belfast ■ The Lancasters, London ■ Mi-Space, Midsomer Norton

# Alumasc Rainwater Systems – Project Gallery



**Mi-Space,** Steel



**Marriotts Walk shopping Centre,** Heritage, Aqualine & Flushjoint



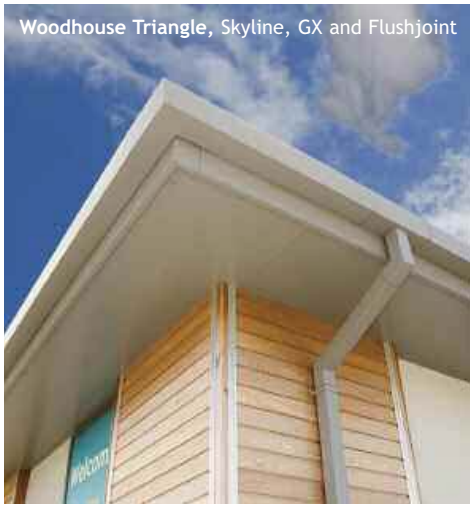
**St. Pancras,** Apex Heritage



**Princesshay,** Skyline, GX and Flushjoint



**Waterstone Park,** GX and Skyline



**Woodhouse Triangle,** Skyline, GX and Flushjoint

Project Listing ■ Marriotts Walk Shopping Centre, Witney ■ St Pancras Station, London ■ Princesshay Shopping Centre, Exeter ■ WAterstone Park, Dartford ■ Woodhouse Triangle Retail Centre, Guisborough

# Alumasc Rainwater Systems
# The Traditional Aluminium Range

This premium, high performance rainwater range features the Heritage cast aluminium system, available as extensive stock components or as non-standard bespoke items.



# Traditional Aluminium Rainwater Range – Introduction

Heritage Cast Aluminium is a range of traditional profiles, fittings and accessories in cast aluminium. Designed to provide all the key architectural features appropriate to traditional designed buildings either new build or refurbishment, in a lightweight fully finished product.







# Heritage Cast Aluminium Rainwater System - Product Summary



Heritage - Half Round Gutter



Heritage - Beaded Half Round Gutter



Heritage - Beaded Deep Run Gutter



Heritage - Victorian Ogee Gutter



Heritage - Moulded Gutter



Heritage - Circular Pipe






Heritage - Square Pipe



Heritage - Rectangular Pipe

# Heritage Cast Aluminium Rainwater System - Product Summary

Heritage is a comprehensive range of traditional gutter profiles, round, square and rectangular pipes and all associated fittings and accessories. Designed to provide all the essential architectural features appropriate to traditionally designed buildings, the Heritage range is also fully in tune with modern fast track building contracts.

## Applications

- Ideal for traditionally designed buildings, in both new build and refurbishment applications
- Can be used as a direct replacement of cast iron
- For both flush and projecting eaves applications

## Features & Performance

- 5 gutter and 3 downpipe profiles available in a choice of sizes
- Pipes available in 1, 2 and 3 metre lengths
- Lightweight, durable and non-corrodible
- Life expectancy of aluminium: 40 years (rural/suburban areas); up to 25 years (industrial/marine areas)
- Easy to handle and fix
- BBA approved
- Aluminium is 100% recyclable

## Colours & Finishes

- BBA approved polyester powder coatings, factory applied at Alumasc
- 26 standard colours with additional BS or RAL colours available to special order
- Can be supplied to resemble cast iron surface texture (black only)
- Also available in plain mill finish for on-site painting

## Manufacture

- UK manufactured by Alumasc
- Gutters and fittings made from commercial LM2 and LM6 grade aluminium alloy
- Gutters are gravity diecast, fittings are pressure diecast and downpipes are extruded aluminium
- Manufactured in accordance with BS 8530 (formerly BS 2997)

## Installation & Fixing

- Gutters are wet sealed with bolted joints, with a range of fixing options
- Gutter joints are secured with screws or bolts through integral holes/slots
- Victorian Ogee and Moulded gutters provided with slots in rear for direct fixing
- Brackets and fittings provided with fixing holes where appropriate
- Circular pipe jointing up to 100mm diameter is by separate sockets giving maximum flexibility for installation. 150mm circular pipes and all square and rectangular pipes have welded on sockets
- Simple fixing to wall by eared sockets or by a choice of pipe clips
- Minimal maintenance requirements



## Gutter Profiles & Sizes



**Half Round**

100mm (4”)
113mm (4.5”)
125mm (5”)



**Beaded Half Round**

113 (4.5)
125mm (5”)



**Beaded Deep Run**

113 x 75mm (4.5 x 3”)



**Victorian Ogee**

100mm (4”)
113mm (4.5”)
125mm (5”)



**Moulded**

100 x 75mm (4 x 3”)
125 x 100mm (5 x 4”)
150 x 100mm (6 x 4”)

## Pipe Profiles & Sizes



**Circular Pipe**

63mm (2.5”)
75mm (3”)
100mm (4”)
150mm (6”)



**Square Pipe**

75 x 75mm (3 x 3”)
100 x 100mm (4 x 4”)



**Rectangular Pipe**

100 x 75mm (4 x 3”)

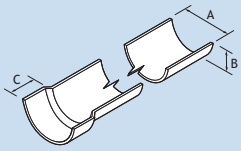
# Heritage – Half Round Gutters and Fittings



Heritage Half Round cast aluminium gutters are available in 3 sizes and 2 gutter lengths, together with a complete range of fittings. A classic socketed system, which can be finished to replicate cast iron or with BBA certificated powder coatings in a choice of colours.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

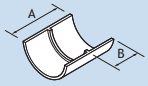
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 100 (4”) | 1830mm | 108 | 47 | 47 | 4 | 2.6 | HR1/1 |
| 113 (4.5”) | " | 122 | 52 | 47 | 4 | 4.0 | HR2/16 |
| 125 (5”) | " | 134 | 56 | 47 | 4 | 4.0 | HR3/132 |
| 100 (4”) | 610mm | 108 | 47 | 47 | 4 | 0.9 | HR1/153 |
| 113 (4.5”) | " | 122 | 52 | 47 | 4 | 1.4 | HR2/154 |
| 125 (5”) | " | 134 | 56 | 47 | 4 | 1.4 | HR3/155 |

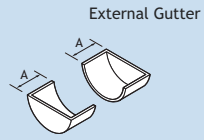
Note: T = Gutter Thickness (nominal +/- 1mm)

## Union Clips



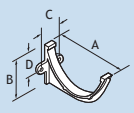

| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 | 96 | 46 | HR1/11 |
| 113 | 96 | 46 | HR2/26 |
| 125 | 96 | 46 | HR3/148 |

## Stop-Ends




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 | External | 51 | HR1/13 |
| 113 | " | 51 | HR2/28 |
| 125 | " | 51 | HR3/150 |
| 100 | Internal | 45 | HR1/12 |
| 113 | " | 45 | HR2/27 |
| 125 | " | 45 | HR3/149 |

## Fascia Brackets

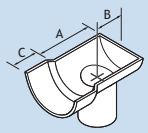



| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 100 | 127 | 65 | 38 | 35 | HR1/14 |
| 113 | 140 | 70 | 38 | 40 | HR2/29 |
| 125 | 155 | 85 | 38 | 45 | HR3/151 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Half Round Gutters and Fittings

## Stop End Outlet - with Socket

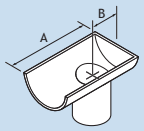


External

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | 63 dia | 125 | 61 | 47 | HR1/9 |
| 113 | " | 125 | 61 | 47 | HR2/24 |
| 125 | " | 125 | 61 | 47 | HR3/144 |
| 125 | 75 dia | 125 | 61 | 47 | HR3/143 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

## Stop End Outlet - with Spigot

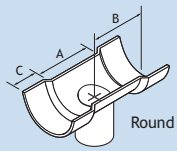


Internal

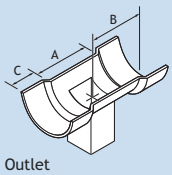
| Gutter Size | Pipe Size | A | B | Product Code |
|---|---|---|---|---|
| 100 | 63 dia | 172 | 64 | HR1/10 |
| 113 | " | 172 | 64 | HR2/25 |
| 125 | " | 172 | 64 | HR3/147 |
| 125 | 75 dia | 172 | 64 | HR3/146 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

## Running Outlet - with Double Spigot Socket



Round Outlet

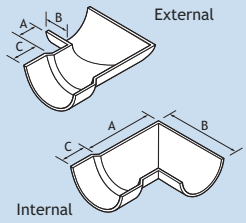


Square Outlet

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | 63 dia | 148 | 121 | 47 | HR1/8 |
| 113 | " | 148 | 121 | 47 | HR2/23 |
| 125 | " | 148 | 121 | 47 | HR3/141 |
| 100 | 75 dia | 148 | 121 | 47 | HR1/367 |
| 113 | " | 148 | 121 | 47 | HR2/3/23 |
| 125 | " | 148 | 121 | 47 | HR3/140 |
| 125 | 100 dia | 148 | 121 | 47 | HR3/139 |
| 100 | 75 x 75 | 148 | 121 | 47 | HR1/381 |
| 113 | " | 148 | 121 | 47 | HR2/382 |
| 125 | " | 148 | 121 | 47 | HR3/383 |

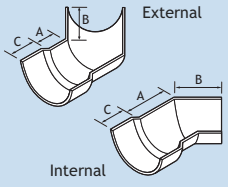
Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

## 90° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | External | 27 | 77 | 47 | HR1/5 |
| 113 | " | 27 | 77 | 47 | HR2/20 |
| 125 | " | 27 | 77 | 47 | HR3/136 |
| 100 | Internal | 132 | 183 | 47 | HR1/4 |
| 113 | " | 146 | 197 | 47 | HR2/19 |
| 125 | " | 157 | 210 | 47 | HR3/135 |

## 135° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | External | 27 | 77 | 47 | HR1/7 |
| 113 | " | 27 | 77 | 47 | HR2/22 |
| 125 | " | 27 | 77 | 47 | HR3/138 |
| 100 | Internal | 70 | 120 | 47 | HR1/6 |
| 113 | " | 70 | 120 | 47 | HR2/21 |
| 125 | " | 70 | 120 | 47 | HR3/137 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Beaded Half Round Gutters and Fittings



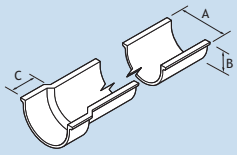
Heritage Beaded Half Round socketed cast aluminium gutters are available in 2 sizes and 2 gutter lengths, together with a complete range of fittings. There is a pronounced feature bead on both lips. Can be finished to replicate cast iron or with BBA certificated powder coatings in a choice of colours.

Notes: Beaded Half Round is an all socketed system and Union Clips are only available by special order.

All dimensions are in mm unless shown otherwise.

Gutter sizes shown are nominal.

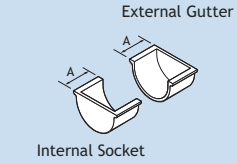
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 113 (4.5”) | 1830mm | 131 | 52 | 47 | 4 | 3.0 | BHR5/300 |
| 125 (5”) | " | 143 | 56 | 47 | 4 | 3.0 | BHR6/325 |
| 113 (4.5”) | 610mm | 131 | 52 | 47 | 4 | 1.0 | BHR5/303 |
| 125 (5”) | " | 143 | 56 | 47 | 4 | 1.0 | BHR6/328 |

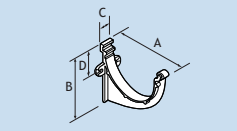
Note: T = Gutter Thickness (nominal +/- 1mm)

## Stop-Ends



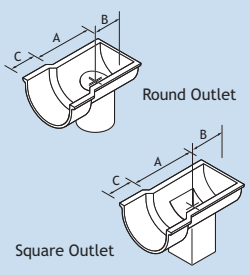

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 113 | External | 51 | BHR5/306 |
| 125 | " | 51 | BHR6/331 |
| 113 | Internal | 45 | BHR5/318 |
| 125 | " | 45 | BHR6/149 |

## Fascia Brackets




| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 113 | 155 | 75 | 38 | 35 | BHR5/315 |
| 125 | 165 | 79 | 38 | 37 | BHR6/337 |

## Stop End Outlet - with Socket



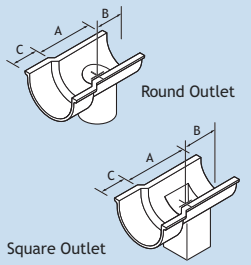

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | 63 dia | 213 | 106 | 47 | BHR5/RO25SE |
| 125 | " | 213 | 106 | 47 | BHR6/RO25SE |
| 113 | 75 dia | 213 | 106 | 47 | BHR5/RO30SE |
| 125 | " | 213 | 106 | 47 | BHR6/RO30SE |
| 113 | 75 x 75 | 213 | 106 | 47 | BHR5/SO33SE |
| 125 | " | 213 | 106 | 47 | BHR6/SO33SE |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Beaded Half Round Gutters and Fittings

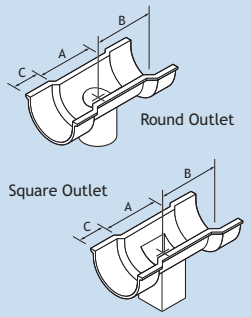
## Running Outlet - with Single Spigot/Socket




| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | 63 dia | 213 | 106 | 47 | BHR5/305 |
| 125 | " | 213 | 106 | 47 | BHR6/330 |
| 113 | 75 dia | 213 | 106 | 47 | BHR5/308 |
| 125 | " | 213 | 106 | 47 | BHR6/333 |
| 113 | 75 x 75 | 213 | 106 | 47 | BHR5/SO33 |
| 125 | " | 213 | 106 | 47 | BHR6/SO33 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

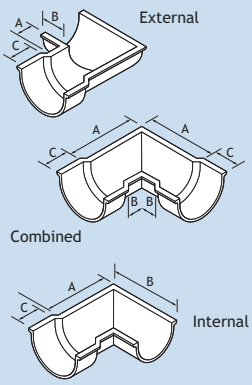
## Running Outlet - with Double Socket




| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | 63 dia | 213 | 160 | 47 | BHR5/304 |
| 125 | " | 213 | 160 | 47 | BHR6/329 |
| 113 | 75 dia | 213 | 160 | 47 | BHR5/307 |
| 125 | " | 213 | 160 | 47 | BHR6/332 |
| 113 | 75 x 75 | 213 | 160 | 47 | BHR5/384 |
| 125 | " | 213 | 160 | 47 | BHR6/385 |

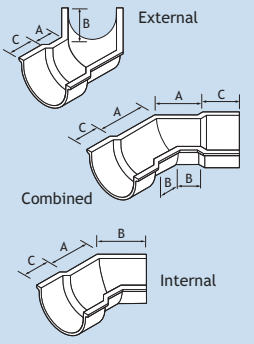
Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

## 90° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | External | 62 | 62 | 47 | BHR5/311 |
| 125 | " | 62 | 62 | 47 | BHR6/336 |
| 113 | Combined | 192 | 62 | 47 | BHR5/309 |
| 125 | " | 192 | 62 | 47 | BHR6/334 |
| 113 | Internal | 192 | 192 | 47 | BHR5/310 |
| 125 | " | 192 | 192 | 47 | BHR6/335 |

## 135° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | External | 62 | 62 | 47 | BHR5/EA135 |
| 125 | " | 62 | 62 | 47 | BHR6/EA135 |
| 113 | Combined | 192 | 62 | 47 | BHR5/IA135D |
| 125 | " | 192 | 62 | 47 | BHR6/IA135D |
| 113 | Internal | 192 | 192 | 47 | BHR5/IA135 |
| 125 | " | 192 | 192 | 47 | BHR6/IA135 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Beaded Deep Run Gutters and Fittings



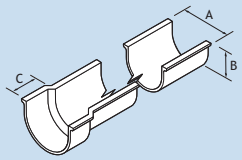
Heritage Beaded Deep Run gutters offer high flow capacity in one gutter size. A socketed system, which can be finished to replicate cast iron or with BBA certificated powder coatings in a choice of colours.

Notes: Beaded Deep Run is an all socketed system and Union Clips are only available by special order.

All dimensions are in mm unless shown otherwise.

Gutter sizes shown are nominal.

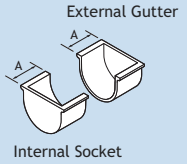
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 113 x 75 (4.5” x 3”) | 1830mm | 137 | 76 | 47 | 4 | 2.6 | HR4/243 |
| 113 x 75 (4.5” x 3”) | 610mm | 137 | 76 | 47 | 4 | 0.9 | HR4/246 |

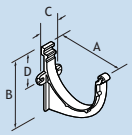
Note: T = Gutter Thickness (nominal +/- 1mm)

## Stop-Ends




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 113 x 75 | External | 42 | HR4/250 |
| 113 x 75 | Internal | 42 | HR4/249 |

## Fascia Brackets



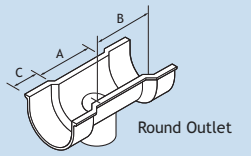

| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 113 x 75 | 155 | 111 | 38 | 55 | HR4/251 |

Note: Each fascia bracket is supplied with a nylon retaining clip

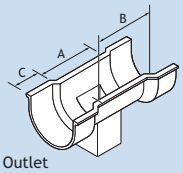
Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Beaded Deep Run Gutters and Fittings

## Running Outlet - with Double Socket



Round Outlet

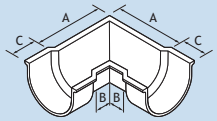


Square Outlet

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 x 75 | 63 dia | 208 | 151 | 47 | HR4/248 |
| 113 x 75 | 75 dia | 208 | 151 | 47 | HR4/369 |
| 113 x 75 | 75 x 75 | 208 | 151 | 47 | HR4/410 |
| 113 x 75 | 100 x 75 | 208 | 151 | 47 | HR4/411 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

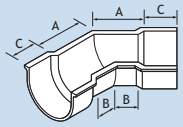
## 90° Angles - with Double Socket



Combined

| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 x 75 | Combined Internal/External | 200 | 55 | 47 | HR4/247 |

## 135° Angles - with Double Socket



Combined

| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 x 75 | Combined Internal/External | 112 | 55 | 47 | HR4/371 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

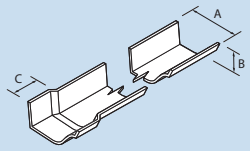
# Heritage – Victorian Ogee Gutters and Fittings



Heritage Victorian Ogee gutters are available in 3 sizes and 2 gutter lengths, together with a complete range of fittings. The traditional Ogee gutter profile is ideal for period applications and restoration. A left-hand socketed system, which can be finished to replicate cast iron or with BBA certificated powder coatings in a choice of colours.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

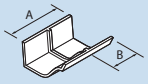
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 100 (4”) | 1830mm | 110 | 54 | 47 | 4 | 2.6 | OG1/31 |
| 113 (4.5”) | " | 121 | 60 | 47 | 4 | 4.0 | OG2/45 |
| 125 (5”) | " | 135 | 68 | 47 | 4 | 4.0 | OG3/173 |
| 100 (4”) | 610mm | 110 | 54 | 47 | 4 | 0.9 | OG1/156 |
| 113 (4.5”) | " | 121 | 60 | 47 | 4 | 1.4 | OG2/157 |
| 125 (5”) | " | 135 | 68 | 47 | 4 | 1.4 | OG3/176 |

Note: Victorian Ogee is a left hand socket system
T = Gutter Thickness (nominal +/- 1mm)

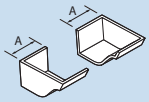
## Union Clips




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 | 98 | 47 | OG1/41 |
| 113 | 98 | 47 | OG2/55 |
| 125 | 98 | 47 | OG3/184 |

## Stop-Ends

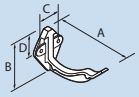
Right Hand External




Left Hand Internal

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 | Right Hand External | 51 | OG1/43 |
| 113 | " | 51 | OG2/57 |
| 125 | " | 51 | OG3/186 |
| 100 | Left Hand Internal | 45 | OG1/42 |
| 113 | " | 45 | OG2/56 |
| 125 | " | 45 | OG3/185 |

## Fascia Brackets

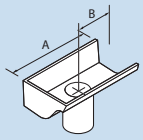



| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 100 | 125 | 80 | 38 | 32 | OG1/44 |
| 113 | 137 | 85 | 38 | 38 | OG2/58 |
| 125 | 150 | 92 | 38 | 38 | OG3/187 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Victorian Ogee Gutters and Fittings

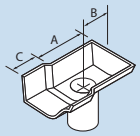
## Left Hand Stop End Outlet - with Spigot




| Gutter Size | Pipe Size | A | B | Product Code |
|---|---|---|---|---|
| 100 | 63 dia | 172 | 64 | OG1/40 |
| 113 | " | 172 | 64 | OG2/54 |
| 125 | " | 172 | 64 | OG3/183 |
| 125 | 75 dia | 172 | 64 | OG3/3/183 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

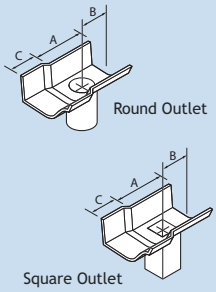
## Right Hand Stop End Outlet - with Socket




| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | 63 dia | 126 | 64 | 47 | OG1/39 |
| 113 | " | 126 | 64 | 47 | OG2/53 |
| 125 | " | 126 | 64 | 47 | OG3/182 |
| 125 | 75 dia | 126 | 64 | 47 | OG3/3/182 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

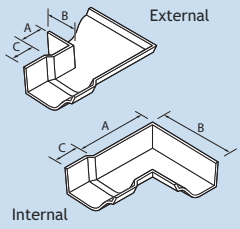
## Running Outlet - with Single Spigot/Socket




| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | 63 dia | 194 | 121 | 47 | OG1/38 |
| 113 | " | 194 | 121 | 47 | OG2/52 |
| 125 | " | 194 | 121 | 47 | OG3/181 |
| 113 | 75 dia | 194 | 121 | 47 | OG2/368 |
| 125 | " | 194 | 121 | 47 | OG3/3/181 |
| 100 | 75 x 75 | 194 | 121 | 47 | OG1/386 |
| 113 | " | 194 | 121 | 47 | OG2/387 |
| 125 | " | 194 | 121 | 47 | OG3/388 |

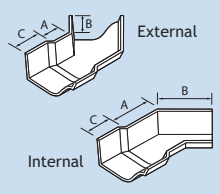
Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

## 90° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | External | 25 | 75 | 47 | OG1/34 |
| 113 | " | 25 | 75 | 47 | OG2/48 |
| 125 | " | 25 | 75 | 47 | OG3/177 |
| 100 | Internal | 133 | 184 | 47 | OG1/35 |
| 113 | " | 146 | 197 | 47 | OG2/49 |
| 125 | " | 159 | 210 | 47 | OG3/178 |

## 135° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | External | 25 | 75 | 47 | OG1/36 |
| 113 | " | 25 | 75 | 47 | OG2/50 |
| 125 | " | 25 | 75 | 47 | OG3/179 |
| 100 | Internal | 70 | 121 | 47 | OG1/37 |
| 113 | " | 75 | 126 | 47 | OG2/51 |
| 125 | " | 80 | 134 | 47 | OG3/180 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

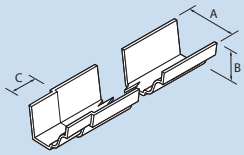
# Heritage – Moulded Gutters and Fittings



Heritage Moulded gutters are available in 3 sizes and 2 gutter lengths, together with a complete range of fittings. A socketed system, which can be finished to replicate cast iron or with BBA certificated powder coatings in a choice of colours. Ideal for restoration or contemporary applications.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

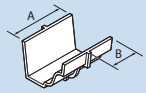
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 100 x 75 (4" x 3") | 1830mm | 108 | 76 | 50 | 4 | 4.0 | MG2/217 |
| 125 x 100 (5" x 4") | " | 140 | 102 | 50 | 4 | 5.4 | MG1/196 |
| 150 x 100 (6" x 4") | " | 162 | 102 | 50 | 4 | 5.6 | MG3/259 |
| 100 x 75 (4" x 3") | 610mm | 108 | 76 | 50 | 4 | 1.4 | MG2/220 |
| 125 x 100 (5" x 4") | " | 140 | 102 | 50 | 4 | 1.8 | MG1/199 |
| 150 x 100 (6" x 4") | " | 162 | 102 | 50 | 4 | 1.9 | MG3/262 |

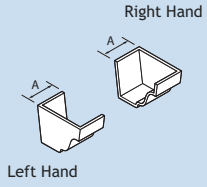
Note: 100 x 75 and 125 x 100 moulded gutters are left hand spigot. 150 x 100 moulded gutter is right hand spigot
T = Gutter Thickness (nominal +/- 1mm)

## Union Clips



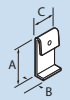

| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 x 75 | 100 | 46 | MG2/231 |
| 125 x 100 | 100 | 46 | MG1/213 |
| 150 x 100 | 100 | 46 | MG3/269 |

## Stop-Ends



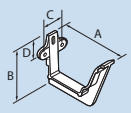

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 75 | External Left Hand | 50 | MG2/233 |
| 125 x 100 | " | 50 | MG1/215 |
| 150 x 100 | External Right Hand | 50 | MG3/271 |
| 100 x 75 | Internal Right Hand | 50 | MG2/232 |
| 125 x 100 | " | 50 | MG1/214 |
| 150 x 100 | Internal Left Hand | 50 | MG3/270 |

## Fixing Supports




| Gutter Size | A | B | C | Product Code |
|---|---|---|---|---|
| 100 x 75 | 70 | 10 | 36 | MG2/373 |
| 125 x 100 | 94 | 12 | 36 | MG1/374 |
| 150 x 100 | 94 | 12 | 36 | MG3/375 |

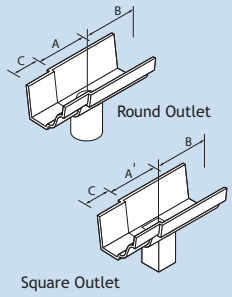
## Fascia Brackets




| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | 136 | 135 | 38 | 38 | MG2/234 |
| 125 x 100 | 135 | 136 | 38 | 39 | MG1/216 |
| 150 x 100 | 162 | 125 | 38 | 39 | MG3/268 |

Note: See footer on page 33.

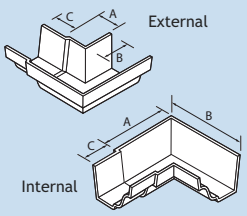
## Running Outlet - with Single Spigot




Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

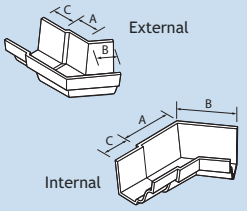
| Gutter Size | Pipe Size | A | B | C | Spigot | Product Code |
|---|---|---|---|---|---|---|
| 100 x 75 | 63 dia | 190 | 120 | 50 | Left Hand | MG2/225 |
| 125 x 100 | " | 190 | 120 | 50 | Left Hand | MG1/205 |
| 150 x 100 | " | 190 | 120 | 50 | Right Hand | MG3/267 |
| 100 x 75 | 75 dia | 190 | 120 | 50 | Left Hand | MG2/370 |
| 125 x 100 | " | 190 | 120 | 50 | Left Hand | MG1/204 |
| 150 x 100 | " | 190 | 120 | 50 | Right Hand | MG3/266 |
| 125 x 100 | 100 dia | 190 | 120 | 50 | Left Hand | MG1/253 |
| 150 x 100 | " | 190 | 120 | 50 | Right Hand | MG3/265 |
| 100 x 75 | 75 x 75 | 190 | 120 | 50 | Left Hand | MG2/356 |
| 125 x 100 | " | 190 | 120 | 50 | Left Hand | MG1/358 |
| 150 x 100 | " | 190 | 120 | 50 | Right Hand | MG3/361 |
| 100 x 75 | 100 x 75 | 190 | 120 | 50 | Left Hand | MG2/357 |
| 125 x 100 | " | 190 | 120 | 50 | Left Hand | MG1/359 |
| 150 x 100 | " | 190 | 120 | 50 | Right Hand | MG3/362 |
| 125 x 100 | 100 x 100 | 190 | 120 | 50 | Left Hand | MG1/360 |
| 150 x 100 | " | 190 | 120 | 50 | Right Hand | MG3/363 |

## 90° Angles



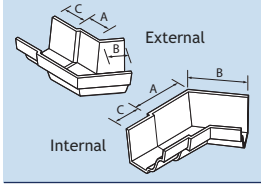

| Gutter Size | Type | A | B | C | Spigot | Product Code |
|---|---|---|---|---|---|---|
| 100 x 75 | External | 25 | 75 | 50 | Left Hand | MG2/221 |
| 125 x 100 | " | 25 | 75 | 50 | Left Hand | MG1/200 |
| 150 x 100 | " | 25 | 75 | 50 | Right Hand | MG3/263 |
| 100 x 75 | Internal | 127 | 183 | 50 | Left Hand | MG2/222 |
| 125 x 100 | " | 158 | 215 | 50 | Left Hand | MG1/201 |
| 150 x 100 | " | 185 | 238 | 50 | Right Hand | MG3/264 |

## 135° Angles



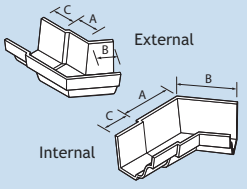

| Gutter Size | Type | A | B | C | Spigot | Product Code |
|---|---|---|---|---|---|---|
| 100 x 75 | External | 25 | 75 | 50 | Left Hand | MG2/223 |
| 125 x 100 | " | 25 | 75 | 50 | Left Hand | MG1/202 |
| 150 x 100 | " | 25 | 75 | 50 | Right Hand | MG3/272 |
| 100 x 75 | Internal | 62 | 120 | 50 | Left Hand | MG2/224 |
| 125 x 100 | " | 79 | 130 | 50 | Left Hand | MG1/203 |
| 150 x 100 | " | 90 | 144 | 50 | Right Hand | MG3/273 |

## 145° Angles




| Gutter Size | Type | A | B | C | Spigot | Product Code |
|---|---|---|---|---|---|---|
| 125 x 100 | External | 25 | 75 | 50 | Left Hand | MG1/329 |
| 150 x 100 | " | 25 | 75 | 50 | Right Hand | MG3/333 |
| 125 x 100 | Internal | 97 | 47 | 50 | Left Hand | MG1/330 |
| 150 x 100 | " | 118 | 68 | 50 | Right Hand | MG3/334 |

## 150° Angles




| Gutter Size | Type | A | B | C | Spigot | Product Code |
|---|---|---|---|---|---|---|
| 125 x 100 | External | 25 | 75 | 50 | Left Hand | MG1/331 |
| 150 x 100 | " | 25 | 75 | 50 | Right Hand | MG3/335 |
| 125 x 100 | Internal | 94 | 44 | 50 | Left Hand | MG1/332 |
| 150 x 100 | " | 118 | 68 | 50 | Right Hand | MG3/336 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

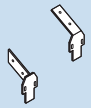
# Heritage – Cast Aluminium Bracketry

Alumasc can provide traditional style Bracketry for all of its standard gutter profiles. Where building detailing dictates, Alumasc can provide bespoke Bracketry to meet individual project requirements.

## Universal Brackets

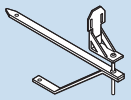
For use with standard Fascia Bracket (purchased separately).

### Universal Rafter Arm



| Type | Angle | Product Code |
|---|---|---|
| Top Fix | 26° | UNI632915 |
| Top Fix | 40° | UNI632916 |
| Side Fix | 26° | UNI632917 |
| Side Fix | 40° | UNI632918 |

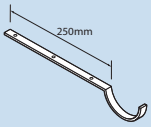
### Universal Drive in Rise & Fall



| Gutter Size | Product Code |
|---|---|
| Universal | UNI632919 |

## Traditional 'Old' Style Gutter Brackets

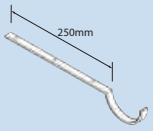
### Top Fix Rafter Arm - Half Round




| Gutter Size | Product Code |
|---|---|
| 100 | HR1/RB/TF |
| 113 | HR2/RB/TF |
| 125 | HR3/RB/TF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

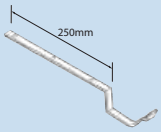
### Top Fix Rafter Arm - Beaded Half Round/Deep Run




| Gutter Size | Product Code |
|---|---|
| 113 | BHR5/RB/TF |
| 125 | BHR6/RB/TF |
| 113 x 75 Deep Run | HR4/RB/TF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

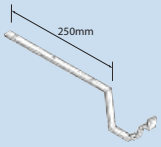
### Top Fix Rafter Arm - Victorian Ogee




| Gutter Size | Product Code |
|---|---|
| 100 | OG1/RB/TF |
| 113 | OG2/RB/TF |
| 125 | OG3/RB/TF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

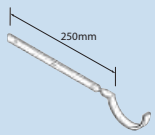
### Top Fix Rafter Arm - Moulded




| Gutter Size | Product Code |
|---|---|
| 100 x 75 | MG2/RB/TF |
| 125 x 100 | MG1/RB/TF |
| 150 x 100 | MG3/RB/TF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

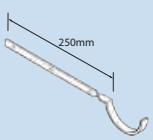
### Side Fix Rafter Arm - Half Round




| Gutter Size | Product Code |
|---|---|
| 100 | HR1/RB/SF |
| 113 | HR2/RB/SF |
| 125 | HR3/RB/SF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

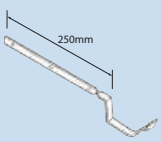
### Side Fix Rafter Arm - Beaded Half Round/Deep Run




| Gutter Size | Product Code |
|---|---|
| 113 | BHR5/RB/SF |
| 125 | BHR6/RB/SF |
| 113 x 75 Deep Run | HR4/RB/SF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

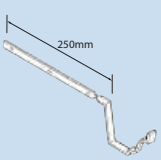
### Side Fix Rafter Arm - Victorian Ogee




| Gutter Size | Product Code |
|---|---|
| 100 | OG1/RB/SF |
| 113 | OG2/RB/SF |
| 125 | OG3/RB/SF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

### Side Fix Rafter Arm - Moulded



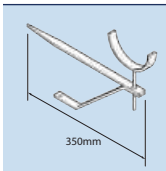

| Gutter Size | Product Code |
|---|---|
| 100 x 75 | MG2/RB/SF |
| 125 x 100 | MG1/RB/SF |
| 150 x 100 | MG3/RB/SF |

Note: Supplied with 40° angle of pitch as standard. Other pitches catered for on request - please specify pitch angle required.

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

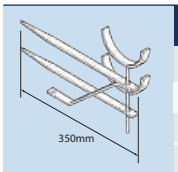
# Heritage – Cast Aluminium Bracketry

### Rise & Fall - Half Round



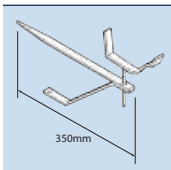

| Gutter Size | Product Code |
|---|---|
| 100 | HR1/R&F/ASSY |
| 113 | HR2/R&F/ASSY |
| 125 | HR3/R&F/ASSY |

### Rise & Fall - Beaded Half Round/Deep Run



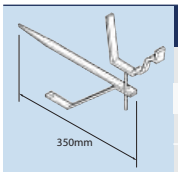

| Gutter Size | Product Code |
|---|---|
| 113 | BHR5/R&F/ASSY |
| 125 | BHR6/R&F/ASSY |
| 113 x 75 Deep Run | HR4/R&F/ASSY |

### Rise & Fall - Victorian Ogee




| Gutter Size | Product Code |
|---|---|
| 100 | OG1/R&F/ASSY |
| 113 | OG2/R&F/ASSY |
| 125 | OG3/R&F/ASSY |

### Rise & Fall - Moulded




| Gutter Size | Product Code |
|---|---|
| 100 x 75 | MG2/R&F/ASSY |
| 125 x 100 | MG1/R&F/ASSY |
| 150 x 100 | MG3/R&F/ASSY |



## Bespoke Bracketry

Alumasc can design and manufacture a variety of Bracketry solution for gutters and pipes to create an integrated system solution. Such detailing can often be used to support fascia and soffit configurations.

Ornate holderbats and earbelts can be detailed to provide a unique, distinguished appearance to a rainwater stack.

Where standard fitting dimensions do not suit the project's requirements, Alumasc can fabricate its gutter and pipe Bracketry systems to accommodate building design.

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Circular Pipes and Fittings

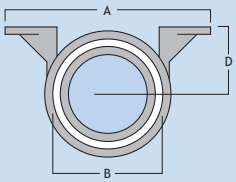


Heritage Circular Pipes are available in 4 pipe diameters and 3 pipe lengths, together with a complete range of fittings. Complementary rainwater heads are also available. Can be factory finished to replicate cast iron or with BBA certificated powder coatings in a range of colours.

Notes: Pipes are extruded sections with cast sockets. The majority of fixings are cast, however certain fittings are fabricated. Contact Alumasc for further details

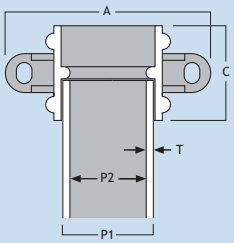
All dimensions are in mm unless shown otherwise.

Pipe sizes shown are nominal.



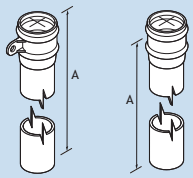

| Sockets (Nominal) | 63 | 75 | 100 | 150 |
|---|---|---|---|---|
| A Length of flange overall | 144 | 160 | 187 | 245 |
| B Internal diameter | 73.5 to 70 | 85 to 81.5 | 110 to 108 | 163 to 160 |
| C Height of socket | 89 | 95 | 90 | 125 |
| D Distance from centre line of pipe to wall | 65 | 71 | 90 | 118 |

Note: All circular sockets are an interference fit with exception of 150mm which are factory welded




| Pipes (Nominal) | 63 | 75 | 100 | 150 |
|---|---|---|---|---|
| P1 External Diameter | 63 | 76.5 | 102 | 152 |
| P2 Internal Diameter | 60.5 | 74 | 98.5 | 147 |
| T Thickness | 1.22 | 1.22 | 1.6 | 2.5 |

## Pipes - With and Without Ears



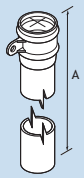

Note: The codes given above are for pipes with ears. For pipes without ears suffix codes with /NE 63, 75 and 100mm pipes are supplied with separate interference-fit cast sockets

| Pipe Size | A | Product Code |
|---|---|---|
| 63 (2.5”) | 3000mm | RW1/3M |
| " | 2000mm | RW1/2M |
| " | 1000mm | RW1/1M |
| 75 (3”) | 3000mm | RW2/3M |
| " | 2000mm | RW2/2M |
| " | 1000mm | RW2/1M |
| 100 (4”) | 3000mm | RW3/3M |
| " | 2000mm | RW3/2M |
| " | 1000mm | RW3/1M |
| 150 (6”) | 3000mm | RW60/3M |
| " | 2000mm | RW60/2M |
| " | 1000mm | RW60/1M |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Circular Pipes and Fittings

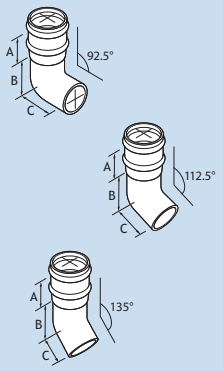
## Thickwall Pipes - With Ears




| Pipe Size | A | Thickness | Product Code |
|---|---|---|---|
| 63 dia | 2000mm | 3 | RWT/25/2M |
| 75 dia | 2000mm | 3 | RWT/30/2M |
| 100 dia | 2000mm | 3 | RWT/40/2M |

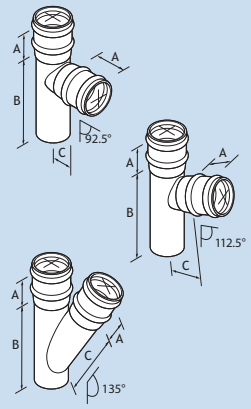
Note: The codes given above are for pipes with ears. For pipes without ears suffix codes with /NE
63, 75 and 100mm pipes are supplied with separate interference-fit cast sockets

## Bends - Without Ears



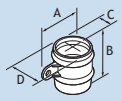

| Pipe Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | 92.5 Degree | 89 | 21 | 140 | RW1/69 |
| 75 dia | " | 95 | 15 | 146 | RW2/83 |
| 100 dia | " | 90 | 80 | 159 | RW3/128 |
| 150 dia | " | 125 | 114 | 109 | RW60/B/92 |
| 63 dia | 112.5 Degree | 89 | 32 | 110 | RW1/70 |
| 75 dia | " | 95 | 26 | 120 | RW2/84 |
| 100 dia | " | 90 | 43 | 110 | RW3/129 |
| 150 dia | " | 125 | 85 | 144 | RW60/B/112 |
| 63 dia | 135 Degree | 89 | 41 | 107 | RW1/165 |
| 75 dia | " | 95 | 35 | 120 | RW2/327 |
| 100 dia | " | 90 | 43 | 110 | RW3/328 |
| 150 dia | " | 125 | 85 | 144 | RW60/B/135 |

## Branches - Without Ears




| Pipe Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | 92.5 Degree | 70 | 200 | 79 | RW1/67 |
| 75 dia | " | 70 | 220 | 85 | RW2/81 |
| 100 dia | " | 90 | 240 | 108 | RW3/126 |
| 150 dia | " | 125 | 315 | 206 | RW60/BR/92 |
| 63 dia | 112.5 Degree | 70 | 200 | 79 | RW1/68 |
| 75 dia | " | 70 | 220 | 85 | RW2/82 |
| 100 dia | " | 65 | 265 | 108 | RW3/127 |
| 150 dia | " | 125 | 135 | 206 | RW60/BR/112 |
| 63 dia | 135 Degree | 70 | 200 | 79 | RW1/BR/135 |
| 75 dia | " | 70 | 220 | 85 | RW2/BR/135 |
| 100 dia | " | 90 | 300 | 180 | RW3/BR/135 |
| 150 dia | " | 125 | 375 | 245 | RW60/BR/135 |

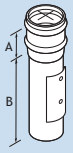
## Round Pipe Sockets - With Ears




| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 63 dia | 144 | 89 | 65 | 73.5 to 70 | RW1/240 |
| 75 dia | 160 | 95 | 71 | 86.5 to 81 | RW2/241 |
| 100 dia | 187 | 90 | 90 | 110 to 108 | RW3/242 |
| 150 dia | 245 | 125 | 118 | 163 to 160 | RW60/PS |

Note: The codes given above are for sockets with ears. For sockets without ears suffix codes with /NE

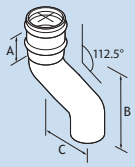
## Access Pipes - Without Ears




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 63 dia | 95 | 245 | RW1/256 |
| 75 dia | 95 | 245 | RW2/257 |
| 100 dia | 95 | 245 | RW3/258 |
| 150 dia | 125 | 295 | RW60/ACP |

Note: See footer on page 36.

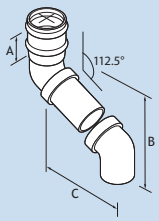
## 112.5° One Part Offsets - Without Ears




Note: Offsets in the 150mm Rainwater pipe range are fabricated, cut and mitred.

| Pipe Size | Offset | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | 75 (3”) | 70 | 184 | 76 | RW1/87 |
| " | 113 (4.5”) | 70 | 200 | 114 | RW1/163 |
| " | 150 (6”) | 70 | 215 | 152 | RW1/62 |
| " | 225 (9”) | 70 | 247 | 228 | RW1/63 |
| " | 300 (12”) | 70 | 279 | 304 | RW1/64 |
| " | 375 (15”) | 70 | 310 | 381 | RW1/65 |
| " | 450 (18”) | 70 | 342 | 457 | RW1/88 |
| " | 525 (21”) | 70 | 373 | 533 | RW1/89 |
| " | 600 (24”) | 70 | 405 | 609 | RW1/164 |
| " | 675 (27”) | 70 | 436 | 685 | RW1/190 |
| " | 750 (30”) | 70 | 468 | 762 | RW1/191 |
| 75 dia | 75 (3”) | 70 | 187 | 76 | RW2/90 |
| " | 113 (4.5”) | 70 | 203 | 114 | RW2/168 |
| " | 150 (6”) | 70 | 218 | 152 | RW2/76 |
| " | 225 (9”) | 70 | 250 | 228 | RW2/77 |
| " | 300 (12”) | 70 | 282 | 304 | RW2/78 |
| " | 375 (15”) | 70 | 313 | 381 | RW2/79 |
| " | 450 (18”) | 70 | 345 | 457 | RW2/91 |
| " | 525 (21”) | 70 | 376 | 533 | RW2/92 |
| " | 600 (24”) | 70 | 408 | 609 | RW2/169 |
| " | 675 (27”) | 70 | 438 | 685 | RW2/192 |
| " | 750 (30”) | 70 | 471 | 762 | RW2/193 |
| 100 dia | 75 (3”) | 69 | 205 | 76 | RW3/118 |
| " | 113 (4.5”) | 69 | 221 | 114 | RW3/171 |
| " | 150 (6”) | 69 | 236 | 152 | RW3/119 |
| " | 225 (9”) | 69 | 268 | 228 | RW3/120 |
| " | 300 (12”) | 69 | 300 | 304 | RW3/121 |
| " | 375 (15”) | 69 | 331 | 381 | RW3/122 |
| " | 450 (18”) | 69 | 363 | 457 | RW3/123 |
| " | 525 (21”) | 69 | 394 | 533 | RW3/124 |
| " | 600 (24”) | 69 | 426 | 609 | RW3/172 |
| " | 675 (27”) | 69 | 457 | 685 | RW3/194 |
| " | 750 (30”) | 69 | 489 | 762 | RW3/195 |
| 150 dia | 75 (3”) | 125 | 318 | 76 | RW60/PO/3 |
| " | 150 (6”) | 125 | 334 | 152 | RW60/PO/6 |
| " | 225 (9”) | 125 | 349 | 228 | RW60/PO/9 |
| " | 300 (12”) | 125 | 413 | 304 | RW60/PO/12 |
| " | 375 (15”) | 125 | 444 | 381 | RW60/PO/15 |
| " | 450 (18”) | 125 | 476 | 457 | RW60/PO/18 |
| " | 525 (21”) | 125 | 539 | 533 | RW60/PO/21 |
| " | 600 (24”) | 125 | 570 | 609 | RW60/PO/24 |

## 112.5° Two Part Offsets - Without Ears

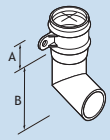



| Pipe Size | Offset | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | 225 (9”) | 70 | 247 | 229 | RW1/350 |
| " | 375 (15”) | 70 | 310 | 381 | RW1/351 |
| " | 450 (18”) | 70 | 342 | 457 | RW1/352 |
| " | 675 (27”) | 70 | 436 | 685 | RW1/353 |
| " | 900 (36”) | 70 | 529 | 914 | RW1/354 |
| 75 dia | 225 (9”) | 70 | 250 | 229 | RW2/343 |
| " | 375 (15”) | 70 | 313 | 381 | RW2/344 |
| " | 450 (18”) | 70 | 345 | 457 | RW2/345 |
| " | 675 (27”) | 70 | 438 | 685 | RW2/346 |
| " | 900 (36”) | 70 | 534 | 914 | RW2/347 |

Note: See footer on page 39.

# Heritage – Circular Pipes and Fittings

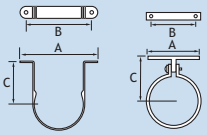
## Shoes - With and Without Ears




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 63 dia | 55 | 105 | RW1/66 |
| 75 dia | 64 | 112 | RW2/80 |
| 100 dia | 69 | 135 | RW3/125 |
| 150 dia | 125 | 215 | RW60/SH |

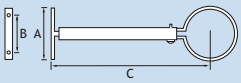
Note: The codes given above are for pipes with ears. For pipes without ears suffix codes with /NE

## Standard Base Clips



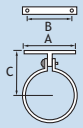

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 124 | 100 | 65 | RW1/236 |
| 75 dia | 137 | 112 | 71 | RW2/237 |
| 100 dia | 163 | 138 | 90 | RW3/238 |
| 150 dia | 255 | 215 | 121 | RW60/PC |

## Extended Base Clips



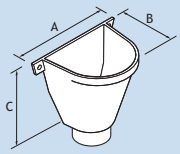

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 87 | 47 | 279 | RW1/364 |
| 75 dia | 87 | 47 | 285 | RW2/365 |
| 100 dia | 87 | 47 | 304 | RW3/366 |

## Small Base Clips




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 87 | 47 | 74 | RW1/SB/PC |
| 75 dia | 87 | 47 | 80 | RW2/SB/PC |
| 100 dia | 87 | 47 | 92 | RW3/SB/PC |

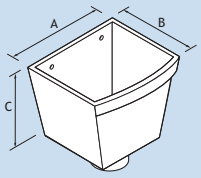
## Flat Back Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 194 | 168 | 184 | RW1/72 |
| 75 dia | 194 | 168 | 184 | RW2/86 |
| 100 dia | 194 | 168 | 184 | RW3/131 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

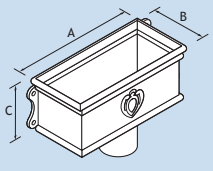
## Rectangular Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 258 | 190 | 178 | RW1/111 |
| 75 dia | 258 | 190 | 178 | RW2/112 |
| 100 dia | 258 | 190 | 178 | RW3/113 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

## Ornamental Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 410 | 186 | 178 | RWOH/25 |
| 75 dia | 410 | 186 | 178 | RWOH/30 |
| 100 dia | 410 | 186 | 178 | RWOH/40 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

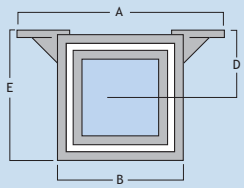
Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Heritage – Square and Rectangular Pipes and Fittings



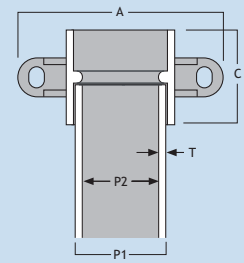
Heritage square and rectangular pipes are available in 3 pipe sizes and 3 pipe lengths, together with a complete range of fittings. A spigot and socket system, which can be finished to replicate cast iron or with BBA certificated powder coatings in a choice of colours. Complementary rainwater heads available to suit.

Notes: Pipes and fittings are made using extruded section with welded-on cast sockets.
All dimensions are in mm unless shown otherwise.
Pipe sizes shown are nominal.



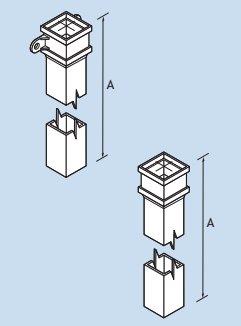

Note: All square and rectangular sockets are factory welded

| Sockets (Nominal) | 75 x 75 | 100 x 75 | 100 x 100 |
|---|---|---|---|
| A Length of flange overall | 162 | 190 | 190 |
| B External width | 90 | 122 | 122 |
| C Height of socket | 82 | 85 | 85 |
| D Distance from centre line of pipe to wall | 52 | 54 | 67 |
| E Distance from front of pipe to wall | 98 | 102 | 130 |




| Pipes (Nominal) | 75 x 75 | 100 x 75 | 100 x 100 |
|---|---|---|---|
| P1 External Diameter | 72 x 72 | 102 x 76 | 102 x 102 |
| P2 Internal Diameter | 68 x 68 | 98 x 72 | 97 x 97 |
| T Thickness | 2.0 | 2.0 | 2.5 |

## Pipes - With and Without Ears



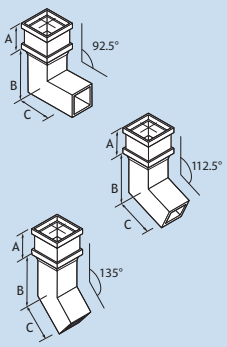

| Pipe Size | A | Product Code |
|---|---|---|
| 75 x 75 (3" x 3") | 3000mm | RW33/3M |
| " | 2000mm | RW33/2M |
| " | 1000mm | RW33/1M |
| 100 x 75 (4" x 3") | 3000mm | RW43/3M |
| " | 2000mm | RW43/2M |
| " | 1000mm | RW43/1M |
| 100 x 100 (4" x 4") | 3000mm | RW44/3M |
| " | 2000mm | RW44/2M |
| " | 1000mm | RW44/1M |

Note: The codes given above are for pipes with ears. For pipes without ears suffix codes with /NE

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

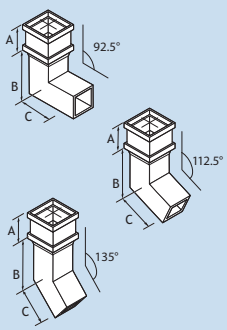
# Heritage – Square and Rectangular Pipes and Fittings

## Bends - Front and Back



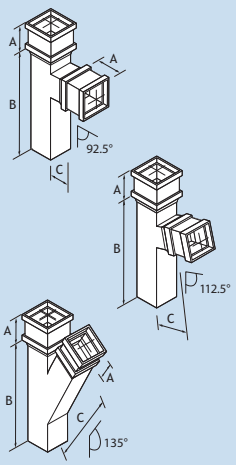

| Pipe Size | Bend | A | B | C | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | 92.5 Degree | 82 | 67 | 137 | RW33/B/92 |
| 100 x 75 | " | 85 | 80 | 150 | RW43/FB/92 |
| 100 x 100 | " | 85 | 81 | 151 | RW44/B/92 |
| 75 x 75 | 112.5 Degree | 82 | 57 | 127 | RW33/B/112 |
| 100 x 75 | " | 85 | 66 | 136 | RW43/FB/112 |
| 100 x 100 | " | 85 | 66 | 136 | RW44/B/112 |
| 75 x 75 | 135 Degree | 82 | 47 | 117 | RW33/B/135 |
| 100 x 75 | " | 85 | 58 | 128 | RW43/FB/135 |
| 100 x 100 | " | 85 | 53 | 123 | RW44/B/135 |

## Bends - Left and Right




| Pipe Size | Bend | A | B | C | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | 92.5 Degree | 82 | 67 | 137 | RW33/B/92 |
| 100 x 75 | " | 85 | 80 | 150 | RW43/SB/92 |
| 100 x 100 | " | 85 | 81 | 151 | RW44/B/92 |
| 75 x 75 | 112.5 Degree | 82 | 57 | 127 | RW33/B/112 |
| 100 x 75 | " | 85 | 66 | 136 | RW43/SB/112 |
| 100 x 100 | " | 85 | 66 | 136 | RW44/B/112 |
| 75 x 75 | 135 Degree | 82 | 47 | 117 | RW33/B/135 |
| 100 x 75 | " | 85 | 58 | 128 | RW43/SB/135 |
| 100 x 100 | " | 85 | 53 | 123 | RW44/B/135 |

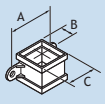
## Branches - Left and Right




| Pipe Size | Branch | A | B | C | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | 92.5 Degree | 82 | 230 | 85 | RW33/BR/92 |
| 100 x 75 | " | 85 | 230 | 85 | RW43/SBR/92 |
| 100 x 100 | " | 85 | 230 | 85 | RW44/BR/92 |
| 75 x 75 | 112.5 Degree | 82 | 248 | 118 | RW33/BR/112 |
| 100 x 75 | " | 85 | 248 | 118 | RW43/SBR/112 |
| 100 x 100 | " | 85 | 248 | 118 | RW44/BR/112 |
| 75 x 75 | 135 Degree | 82 | 310 | 190 | RW33/BR/135 |
| 100 x 75 | " | 85 | 310 | 190 | RW43/SBR/135 |
| 100 x 100 | " | 85 | 310 | 190 | RW44/BR/135 |

Note: 100x75 Front/Back Branches are also available. Product codes are as follows:
RW43/FBR/92 for 92.5° Branches
RW43/FBR/112 for 112.5° Branches
RW43/FBR/135 for 135° Branches

## Square Pipe Sockets



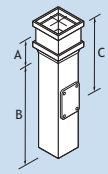

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 162 | 52 | 90 | RW33/PS |
| 100 x 75 | 191 | 54 | 122 | RW43/PS |
| 100 x 100 | 191 | 67 | 122 | RW44/PS |

Note: The codes given above are for sockets with ears. For sockets without ears suffix codes with /NE

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

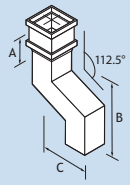
# Heritage – Square and Rectangular Pipes and Fittings

## Access Pipes




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 82 | 266 | 153 | RW33/ACP |
| 100 x 75 | 82 | 266 | 153 | RW43/ACP |
| 100 x 100 | 82 | 266 | 153 | RW44/ACP |

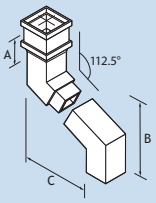
## 112.5° One Part Offsets




| Pipe Size | Offset | A | B | C | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | 75 (3”) | 82 | 220 | 76 | RW33/PO/3 |
| 100 x 75 | 75 (3”) | 82 | 220 | 76 | RW43/PO/3 |
| 100 x 100 | 75 (3”) | 82 | 220 | 76 | RW44/PO/3 |

Note: Alternative angles, e.g. 135° plinth offsets with ears are also available to order

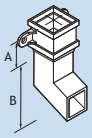
## 112.5° Two Part Offsets




| Pipe Size | Offset | A | B | C | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | 300 (12”) | 82 | 310 | 305 | RW33/AO/12 |
| " | 525 (21”) | 82 | 390 | 533 | RW33/AO/21 |
| " | 750 (30”) | 82 | 470 | 762 | RW33/AO/30 |
| 100 x 75 | 300 (12”) | 82 | 310 | 305 | RW43/AO/12 |
| " | 525 (21”) | 82 | 390 | 533 | RW43/AO/21 |
| " | 750 (30”) | 82 | 470 | 762 | RW43/AO/30 |
| 100 x 100 | 300 (12”) | 82 | 345 | 305 | RW44/AO/12 |
| " | 525 (21”) | 82 | 439 | 533 | RW44/AO/21 |
| " | 750 (30”) | 82 | 534 | 762 | RW44/AO/30 |

Note: The order code for 112.5° side offsets should be suffixed with /L for left hand or /R for right hand discharge

## Shoes Front with Ears



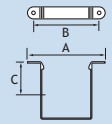

| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 75 x 75 | 82 | 106 | RW33/SH |
| 100 x 75 | 82 | 106 | RW43/SH |
| 100 x 100 | 82 | 148 | RW44/SH |

Note: The codes given above are for shoes with ears. For shoes without ears add suffix /NE

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

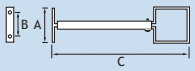
# Heritage – Square and Rectangular Pipes and Fittings

## Standard Base Clips



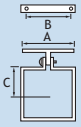

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 134 | 109 | 52 | RW33/PC |
| 100 x 75 | 163 | 138 | 54 | RW43/PC |
| 100 x 100 | 163 | 138 | 67 | RW44/PC |

## Extended Base Clips



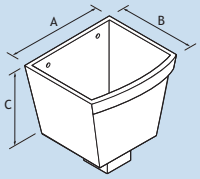

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 87 | 47 | 290 max | RW33/EX/PC |
| 100 x 75 | 87 | 47 | 292 max | RW43/EX/PC |
| 100 x 100 | 87 | 47 | 305 max | RW44/EX/PC |

## Small Base Clips




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 87 | 47 | 78 | RW33/SB/PC |
| 100 x 75 | 87 | 47 | 80 | RW43/SB/PC |
| 100 x 100 | 87 | 47 | 94 | RW44/SB/PC |

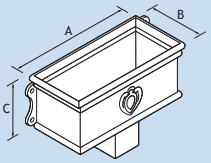
## Rectangular Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 258 | 190 | 178 | RW33/RH |
| 100 x 75 | 258 | 190 | 178 | RW43/RH |
| 100 x 100 | 258 | 190 | 178 | RW44/RH |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

## Ornamental Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 410 | 186 | 178 | RWOH/33 |
| 100 x 75 | 410 | 186 | 178 | RWOH/43 |
| 100 x 100 | 410 | 186 | 178 | RWOH/44 |

Note: Designed to fit Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes



Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Alumasc Rainwater Systems

# The Contemporary Aluminium Range

This premium, high performance rainwater range features the Aqualine extruded aluminium gutter system, GX pressed aluminium gutter system, Flushjoint extruded aluminium pipe system and Guardian extruded aluminium security pipe system.



# Contemporary Aluminium Rainwater Range – Introduction

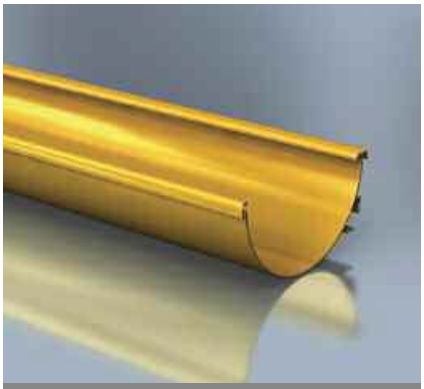
Alumasc's contemporary range of aluminium rainwater systems are ideally suited for new build projects. The range consists of Aqualine Extruded and GX Pressed gutter systems along with corresponding downpipe systems of Flushjoint and the Guardian security downpipe system.



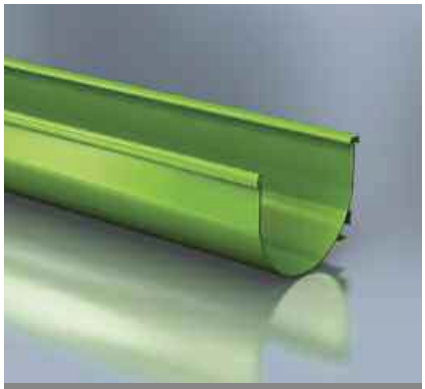




# Aqualine – Extruded Aluminium Gutter Systems - Product Summary



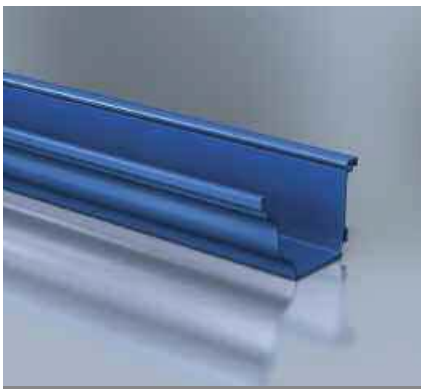
Aqualine - Half Round Gutter



Aqualine - Deep Run Gutter



Aqualine - Modern Gutter



Aqualine - Moulded Gutter



Aqualine - Box Gutter





# Aqualine – Extruded Aluminium Gutter Systems - Product Summary

Aqualine provides a compact and efficient rainwater system that significantly enhances and complements the appearance and architectural character of the building. A choice of 5 standard profiles is available with secret fix bracketry and all weather 'dry' jointing, with full provision for thermal movement.

## Applications

- Provides smooth lines and intricate detailing to contemporary designed buildings
- High flow capacity for enhanced performance
- Suited to both flush and projecting eaves applications

## Features & Performance

- 5 gutter profiles available in 3 metre lengths, in a choice of sizes
- Designed to fully accommodate thermal movement at every joint
- Lightweight, durable and non-corrodible
- Life expectancy of aluminium: 40 years (rural/suburban areas); up to 25 years (industrial/marine areas)
- Easy to handle and fix
- Aqualine is patented and is also 'Design Registered'
- Aluminium is 100% recyclable

## Colours & Finishes

- BBA approved polyester powder coatings, factory applied at Alumasc
- 26 standard colours with additional BS or RAL colours available to special order
- Also available in plain mill finish for on-site painting

## Manufacture

- UK manufactured
- Based on aluminium extrusions to BS 1474: 1972, material 6063, T6

## Installation & Fixing

- Concealed site fixing and jointing for a clean external appearance
- Once support brackets have been fixed to the building fabric all remaining assembly is by simple clip fix
- Joints are dry sealed using internal unions secured by sliding lock bars
- Minimal maintenance requirements



## Gutter Profiles & Sizes



**Half Round Gutter**

100 x 50mm
120 x 60mm
150 x 75mm



**Deep Run Gutter**

110 x 85mm



**Modern Gutter**

100 x 85mm
150 x 120mm



**Moulded Gutter**

140 x 100mm
160 x 100mm



**Box Gutter**

120 x 80mm
140 x 100mm
160 x 100mm

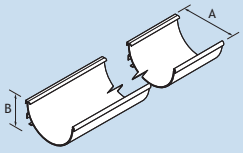
# Aqualine – Half Round Gutters and Fittings



Aqualine Half Round Gutters are available in 3 sizes and in standard 3m gutter lengths, together with a complete range of fittings. A contemporary profile with clean lines that fits well into virtually any design aesthetic. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

## Gutter Assemblies




| Gutter Size | Gutter Length | A | B | T | Product Code |
|---|---|---|---|---|---|
| 100 x 50 | 3000mm | 117 | 60 | 3 | EHR10/3MA |
| 120 x 60 | " | 140 | 70 | 3 | EHR12/3MA |
| 150 x 75 | " | 170 | 85 | 3 | EHR15/3MA |

Note: Gutter Assemblies are complete 3 metre assemblies including Gutter length, Union Clips, Brackets and Slide Locks
T = Gutter Thickness (nominal)

## Union Clip Assemblies




| Gutter Size | A | Product Code |
|---|---|---|
| 100 x 50 | 76 | EHR10/UCA |
| 120 x 60 | 76 | EHR12/UCA |
| 150 x 75 | 76 | EHR15/UCA |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras
Union Clip Assemblies include Union Clips and Slide Locks

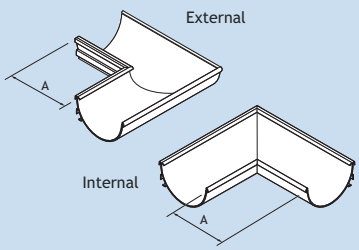
## Brackets




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 x 50 | 40 | 70 | EHR10/FB |
| 120 x 60 | 40 | 70 | EHR12/FB |
| 150 x 75 | 40 | 80 | EHR15/FB |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras

## 90° Angle Assemblies



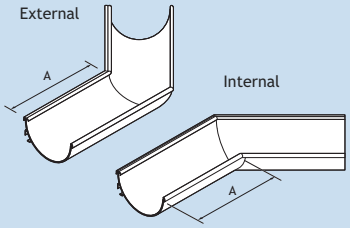

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 50 | External | 200 | EHR10/EA90A |
| 120 x 60 | " | 200 | EHR12/EA90A |
| 150 x 75 | " | 200 | EHR15/EA90A |
| 100 x 50 | Internal | 200 | EHR10/IA90A |
| 120 x 60 | " | 200 | EHR12/IA90A |
| 150 x 75 | " | 200 | EHR15/IA90A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Aqualine – Half Round Gutters and Fittings

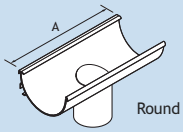
## 135° Angle Assemblies

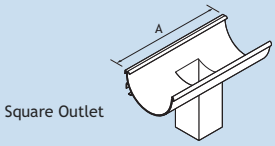



| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 50 | External | 200 | EHR10/EA13A |
| 120 x 60 | " | 200 | EHR12/EA13A |
| 150 x 75 | " | 200 | EHR15/EA13A |
| 100 x 50 | Internal | 200 | EHR10/IA13A |
| 120 x 60 | " | 200 | EHR12/IA13A |
| 150 x 75 | " | 200 | EHR15/IA13A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Running Outlet Assemblies



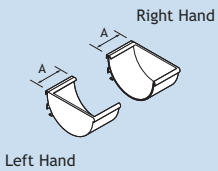




| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 100 x 50 | 63 dia | 300 | EHR10/RO25A |
| 120 x 60 | " | 300 | EHR12/RO25A |
| 150 x 75 | " | 300 | EHR15/RO25A |
| 100 x 50 | 75 dia | 300 | EHR10/RO30A |
| 120 x 60 | " | 300 | EHR12/RO30A |
| 150 x 75 | " | 300 | EHR15/RO30A |
| 100 x 75 | 100 dia | 300 | EHR15/RO40A |
| 100 x 50 | 75 x 75 | 300 | EHR10/SO33A |
| 120 x 60 | " | 300 | EHR12/SO33A |
| 150 x 75 | " | 300 | EHR15/SO33A |
| 100 x 50 | 100 x 75 | 300 | EHR10/SO43A |
| 120 x 60 | " | 300 | EHR12/SO43A |
| 150 x 75 | " | 300 | EHR15/SO43A |
| 150 x 75 | 100 x 100 | 300 | EHR15/SO44A |

Note: A choice of three pipe systems is available. Product codes above denote that running outlets fit to Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Union Clip Assemblies include Union Clips and Slide Locks

## Stop-End Assemblies




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 50 | Left Hand | 50 | EHR10/SELHA |
| 120 x 60 | " | 50 | EHR12/SELHA |
| 150 x 75 | " | 50 | EHR15/SELHA |
| 100 x 50 | Right Hand | 50 | EHR10/SERHA |
| 120 x 60 | " | 50 | EHR12/SERHA |
| 150 x 75 | " | 50 | EHR15/SERHA |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Starter Pack (required with each order)

Includes: P80 joint/seal lubricant.
2 x jointing tool.
10 x spare lock bars.
20 x spare No 12 screws.
8 x spare seal strips.
20 x shims.

| Gutter Size | Product Code |
|---|---|
| 100 x 50 | EHR10/START |
| 120 x 60 | EHR12/START |
| 150 x 75 | EHR15/START |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

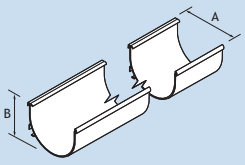
# Aqualine – Deep Run Gutters and Fittings



Aqualine Deep Run Gutters combine the clean lines of a modern half round gutter with high capacity and extra performance. Available in 1 size and in standard 3m gutter lengths, together with a complete range of fittings. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

## Gutter Assemblies




| Gutter Size | Gutter Length | A | B | T | Product Code |
|---|---|---|---|---|---|
| 110 x 85 | 3000mm | 137 | 88 | 3 | EDR11/3MA |

Note: Gutter Assemblies are complete 3 metre assemblies including Gutter length, Union Clips, Brackets and Slide Locks
T = Gutter Thickness (nominal)

## Union Clip Assemblies




| Gutter Size | A | Product Code |
|---|---|---|
| 110 x 85 | 76 | EDR11/UCA |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras
Union Clip Assemblies include Union Clips and Slide Locks

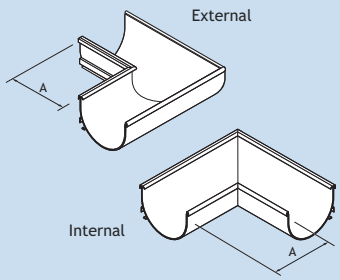
## Brackets




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 110 x 85 | 40 | 80 | EDR11/FB |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras

## 90° Angle Assemblies



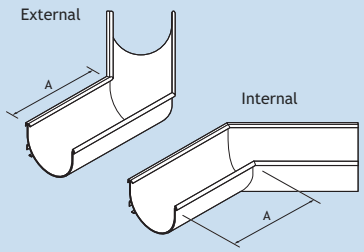

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 110 x 85 | External | 200 | EDR11/EA90A |
| 110 x 85 | Internal | 200 | EDR11/IA90A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Aqualine – Deep Run Gutters and Fittings

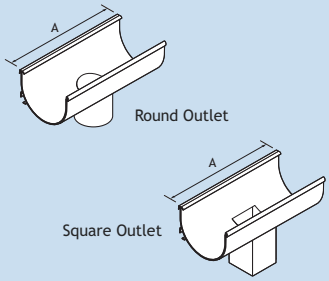
## 135° Angle Assemblies




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 110 x 85 | External | 200 | EDR11/EA13A |
| 110 x 85 | Internal | 200 | EDR11/IA13A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Running Outlet Assemblies

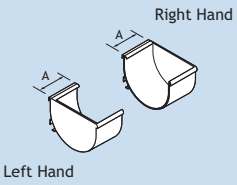



| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 110 x 85 | 63 dia | 300 | EDR11/RO25A |
| 110 x 85 | 75 dia | 300 | EDR11/RO30A |
| 110 x 85 | 100 dia | 300 | EDR11/RO40A |
| 110 x 85 | 75 x 75 | 300 | EDR11/SO33A |
| 110 x 85 | 100 x 75 | 300 | EDR11/SO43A |
| 110 x 85 | 100 x 100 | 300 | EDR11/SO44A |

Note: A choice of three pipe systems is available. Product codes above denote that running outlets fit to Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Union Clip Assemblies include Union Clips and Slide Locks

## Stop-End Assemblies




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 110 x 85 | Left Hand | 50 | EDR11/SELHA |
| 110 x 85 | Right Hand | 50 | EDR11/SERHA |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Starter Pack (required with each order)

Includes: P80 joint/seal lubricant.
2 x jointing tool.
10 x spare lock bars.
20 x spare No 12 screws.
8 x spare seal strips.
20 x shims.

| Gutter Size | Product Code |
|---|---|
| 110 x 85 | EDR11/START |





Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

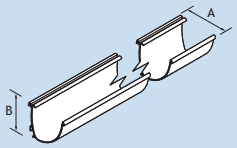
# Aqualine – Modern Gutters and Fittings



Aqualine Modern Gutters are available in 2 sizes and in standard 3m gutter lengths, together with a complete range of fittings. Sophisticated contemporary appearance for striking visual detail at the roofline. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

## Gutter Assemblies




| Gutter Size | Gutter Length | A | B | T | Product Code |
|---|---|---|---|---|---|
| 100 x 85 | 3000mm | 122 | 104 | 3 | EAQ10/3MA |
| 150 x 120 | " | 170 | 135 | 3 | EAQ15/3MA |

Note: Gutter Assemblies are complete 3 metre assemblies including Gutter length, Union Clips, Brackets and Slide Locks
T = Gutter Thickness (nominal)

## Union Clip Assemblies




| Gutter Size | A | Product Code |
|---|---|---|
| 100 x 85 | 76 | EAQ10/UCA |
| 150 x 120 | 76 | EAQ15/UCA |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras
Union Clip Assemblies include Union Clips and Slide Locks

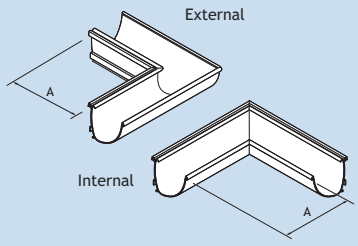
## Brackets




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 x 85 | 40 | 92 | EAQ10/FB |
| 150 x 120 | 40 | 88 | EAQ15/FB |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras

## 90° Angle Assemblies

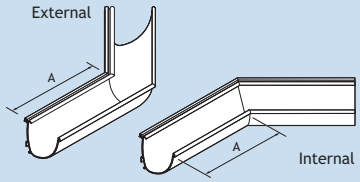



| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 85 | External | 200 | EAQ10/EA90A |
| 150 x 120 | " | 200 | EAQ15/EA90A |
| 100 x 85 | Internal | 200 | EAQ10/IA90A |
| 150 x 120 | " | 200 | EAQ15/IA90A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

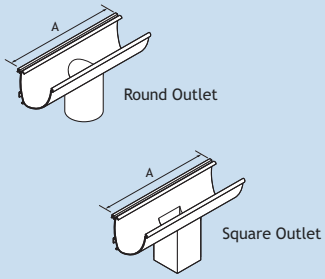
## 135° Angle Assemblies




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 85 | External | 200 | EAQ10/EA13A |
| 150 x 120 | " | 200 | EAQ15/EA13A |
| 100 x 85 | Internal | 200 | EAQ10/IA13A |
| 150 x 120 | " | 200 | EAQ15/IA13A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Running Outlets Assemblies

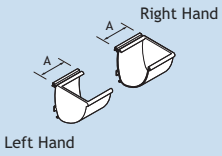



| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 100 x 85 | 63 dia | 300 | EAQ10/RO25A |
| 150 x 120 | " | 300 | EAQ15/RO25A |
| 100 x 85 | 75 dia | 300 | EAQ10/RO30A |
| 150 x 120 | " | 300 | EAQ15/RO30A |
| 150 x 120 | 100 dia | 300 | EAQ15/RO40A |
| 100 x 85 | 75 x 75 | 300 | EAQ10/SO33A |
| 150 x 120 | " | 300 | EAQ15/SO33A |
| 100 x 85 | 100 x 75 | 300 | EAQ10/SO43A |
| 150 x 120 | " | 300 | EAQ15/SO43A |
| 150 x 120 | 100 x 100 | 300 | EAQ15/SO44A |

Note: A choice of three pipe systems is available. Product codes above denote that running outlets fit to Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Union Clip Assemblies include Union Clips and Slide Locks

## Stop-End Assemblies




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 85 | Left Hand | 50 | EAQ10/SELHA |
| 150 x 120 | " | 50 | EAQ15/SELHA |
| 100 x 85 | Right Hand | 50 | EAQ10/SERHA |
| 150 x 120 | " | 50 | EAQ15/SERHA |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Starter Pack (required with each order)

Includes: P80 joint/seal lubricant.
2 x jointing tool.
10 x spare lock bars.
20 x spare No 12 screws.
8 x spare seal strips.
20 x shims.

| Gutter Size | Product Code |
|---|---|
| 100 x 85 | EAQ10/START |
| 150 x 120 | EAQ15/START |





Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

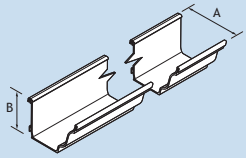
# Aqualine – Moulded Gutters and Fittings



Aqualine Moulded Gutters are available in 2 sizes and in standard 3m gutter lengths, together with a complete range of fittings. A classic moulded profile in a state-of-the-art contemporary gutter system. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

## Gutter Assemblies




| Gutter Size | Gutter Length | A | B | T | Product Code |
|---|---|---|---|---|---|
| 140 x 100 | 3000mm | 165 | 103 | 3 | EMG14/3MA |
| 160 x 100 | " | 187 | 103 | 3 | EMG16/3MA |

Note: Gutter Assemblies are complete 3 metre assemblies including Gutter length, Union Clips, Brackets and Slide Locks
T = Gutter Thickness (nominal)

## Union Clip Assemblies




| Gutter Size | A | Product Code |
|---|---|---|
| 140 x 100 | 76 | EMG14/UCA |
| 160 x 100 | 76 | EMG16/UCA |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras
Union Clip Assemblies include Union Clips and Slide Locks

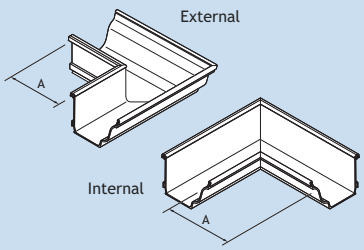
## Brackets




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 140 x 100 | 40 | 92 | EMG14/FB |
| 160 x 100 | 40 | 92 | EMG16/FB |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras

## 90° Angle Assemblies

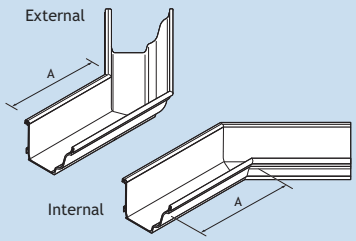



| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 140 x 100 | External | 200 | EMG14/EA90A |
| 160 x 100 | " | 200 | EMG16/EA90A |
| 140 x 100 | Internal | 200 | EMG14/IA90A |
| 160 x 100 | " | 200 | EMG16/IA90A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

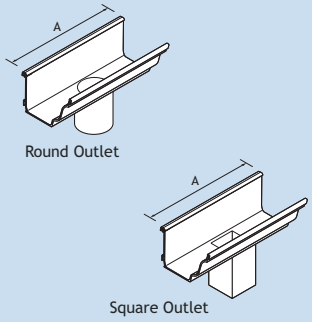
## 135° Angle Assemblies




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 140 x 100 | External | 200 | EMG14/EA13A |
| 160 x 100 | " | 200 | EMG16/EA13A |
| 140 x 100 | Internal | 200 | EMG14/IA13A |
| 160 x 100 | " | 200 | EMG16/IA13A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Running Outlet Assemblies

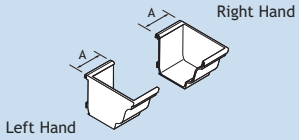



| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 140 x 100 | 63 dia | 300 | EMG14/RO25A |
| 160 x 100 | " | 300 | EMG16/RO25A |
| 140 x 100 | 75 dia | 300 | EMG14/RO30A |
| 160 x 100 | " | 300 | EMG16/RO30A |
| 160 x 100 | 100 dia | 300 | EMG16/RO40A |
| 140 x 100 | 75 x 75 | 300 | EMG14/SO33A |
| 160 x 100 | " | 300 | EMG16/SO33A |
| 140 x 100 | 100 x 75 | 300 | EMG14/SO43A |
| 160 x 100 | " | 300 | EMG16/SO43A |
| 160 x 100 | 100 x 100 | 300 | EMG16/SO44A |

Note: A choice of three pipe systems is available. Product codes above denote that running outlets fit to Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Union Clip Assemblies include Union Clips and Slide Locks

## Stop-End Assemblies




| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 140 x 100 | Left Hand | 50 | EMG14/SELHA |
| 160 x 100 | " | 50 | EMG16/SELHA |
| 140 x 100 | Right Hand | 50 | EMG14/SERHA |
| 160 x 100 | " | 50 | EMG16/SERHA |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Starter Pack (required with each order)

Includes: P80 joint/seal lubricant.
2 x jointing tool.
10 x spare lock bars.
20 x spare No 12 screws.
8 x spare seal strips.
20 x shims.

| Gutter Size | Product Code |
|---|---|
| 140 x 100 | EMG14/START |
| 160 x 100 | EMG16/START |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

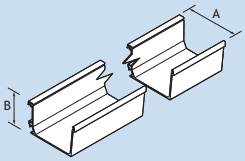
# Aqualine – Box Gutters and Fittings



Aqualine Box Gutters are available in 3 sizes and in standard 3m gutter lengths, together with a complete range of fittings. Pronounced angular lines make a strong visual statement. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

## Gutter Assemblies




| Gutter Size | Gutter Length | A | B | T | Product Code |
|---|---|---|---|---|---|
| 120 x 80 | 3000mm | 145 | 83 | 3 | EBG12/3MA |
| 140 x 100 | " | 162 | 103 | 3 | EBG14/3MA |
| 160 x 100 | " | 183 | 103 | 3 | EBG16/3MA |

Note: Gutter Assemblies are complete 3 metre assemblies including Gutter length, Union Clips, Brackets and Slide Locks
T = Gutter Thickness (nominal)

## Union Clip Assemblies




| Gutter Size | A | Product Code |
|---|---|---|
| 120 x 80 | 76 | EBG12/UCA |
| 140 x 100 | 76 | EBG14/UCA |
| 160 x 100 | 76 | EBG16/UCA |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras
Union Clip Assemblies include Union Clips and Slide Locks

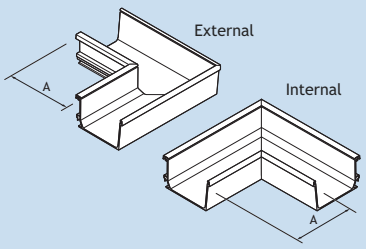
## Brackets




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 120 x 80 | 40 | 88 | EBG12/FB |
| 140 x 100 | 40 | 92 | EBG14/FB |
| 160 x 100 | 40 | 92 | EBG16/FB |

Note: Gutter Assemblies are supplied with Union Clips and Brackets included. The codes in the table are for additional items, ordered as extras

## 90° Angle Assemblies



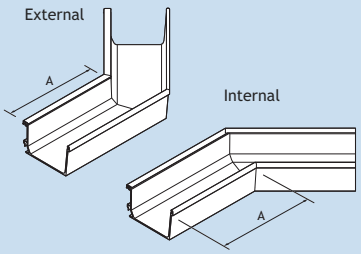

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 120 x 80 | External | 200 | EBG12/EA90A |
| 140 x 100 | " | 200 | EBG14/EA90A |
| 160 x 100 | " | 200 | EBG16/EA90A |
| 120 x 80 | Internal | 200 | EBG12/IA90A |
| 140 x 100 | " | 200 | EBG14/IA90A |
| 160 x 100 | " | 200 | EBG16/IA90A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Aqualine – Box Gutters and Fittings

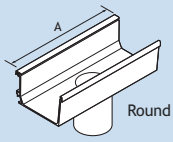
## 135° Angle Assemblies

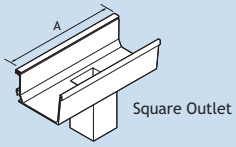



| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 120 x 80 | External | 200 | EBG12/EA13A |
| 140 x 100 | " | 200 | EBG14/EA13A |
| 160 x 100 | " | 200 | EBG16/EA13A |
| 120 x 80 | Internal | 200 | EBG12/IA13A |
| 140 x 100 | " | 200 | EBG14/IA13A |
| 160 x 100 | " | 200 | EBG16/IA13A |

Note: Union Clip Assemblies include Union Clips and Slide Locks

## Running Outlet Assemblies



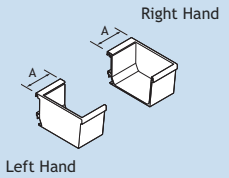




| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 120 x 80 | 63 dia | 300 | EBG12/RO25A |
| 140 x 100 | " | 300 | EBG14/RO25A |
| 160 x 100 | " | 300 | EBG16/RO25A |
| 120 x 80 | 75 dia | 300 | EBG12/RO30A |
| 140 x 100 | " | 300 | EBG14/RO30A |
| 160 x 100 | " | 300 | EBG16/RO30A |
| 140 x 100 | 100 dia | 300 | EBG14/RO40A |
| 160 x 100 | " | 300 | EBG16/RO40A |
| 120 x 80 | 75 x 75 | 300 | EBG12/SO33A |
| 140 x 100 | " | 300 | EBG14/SO33A |
| 160 x 100 | " | 300 | EBG16/SO33A |
| 120 x 80 | 100 x 75 | 300 | EBG12/SO43A |
| 140 x 100 | " | 300 | EBG14/SO43A |
| 160 x 100 | " | 300 | EBG16/SO43A |
| 140 x 100 | 100 x 100 | 300 | EBG14/SO44A |
| 160 x 100 | | 300 | EBG16/SO44A |

Note: A choice of three pipe systems is available. Product codes above denote that running outlets fit to Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Union Clip Assemblies include Union Clips and Slide Locks

## Stop-End Assemblies




| Gutter Size | | A | Product Code |
|---|---|---|---|
| 120 x 80 | Left Hand | 50 | EBG12/SELHA |
| 140 x 100 | " | 50 | EBG14/SELHA |
| 160 x 100 | " | 50 | EBG16/SELHA |
| 120 x 80 | Right Hand | 50 | EBG12/SERHA |
| 140 x 100 | " | 50 | EBG14/SERHA |
| 160 x 100 | | 50 | EBG16/SERHA |

Note: Union Clip Assemblies include Union Clips and Slide Locks

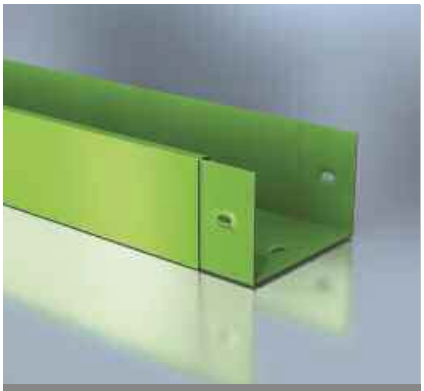
## Starter Pack (required with each order)

Includes: P80 joint/seal lubricant.
2 x jointing tool.
10 x spare lock bars.
20 x spare No 12 screws.
8 x spare seal strips.
20 x shims.

| Gutter | Product Code |
|---|---|
| 120 x 80 | EBG12/START |
| 140 x 100 | EBG14/START |
| 160 x 100 | EBG16/START |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# GX – Pressed Aluminium Gutter Systems - Product Summary



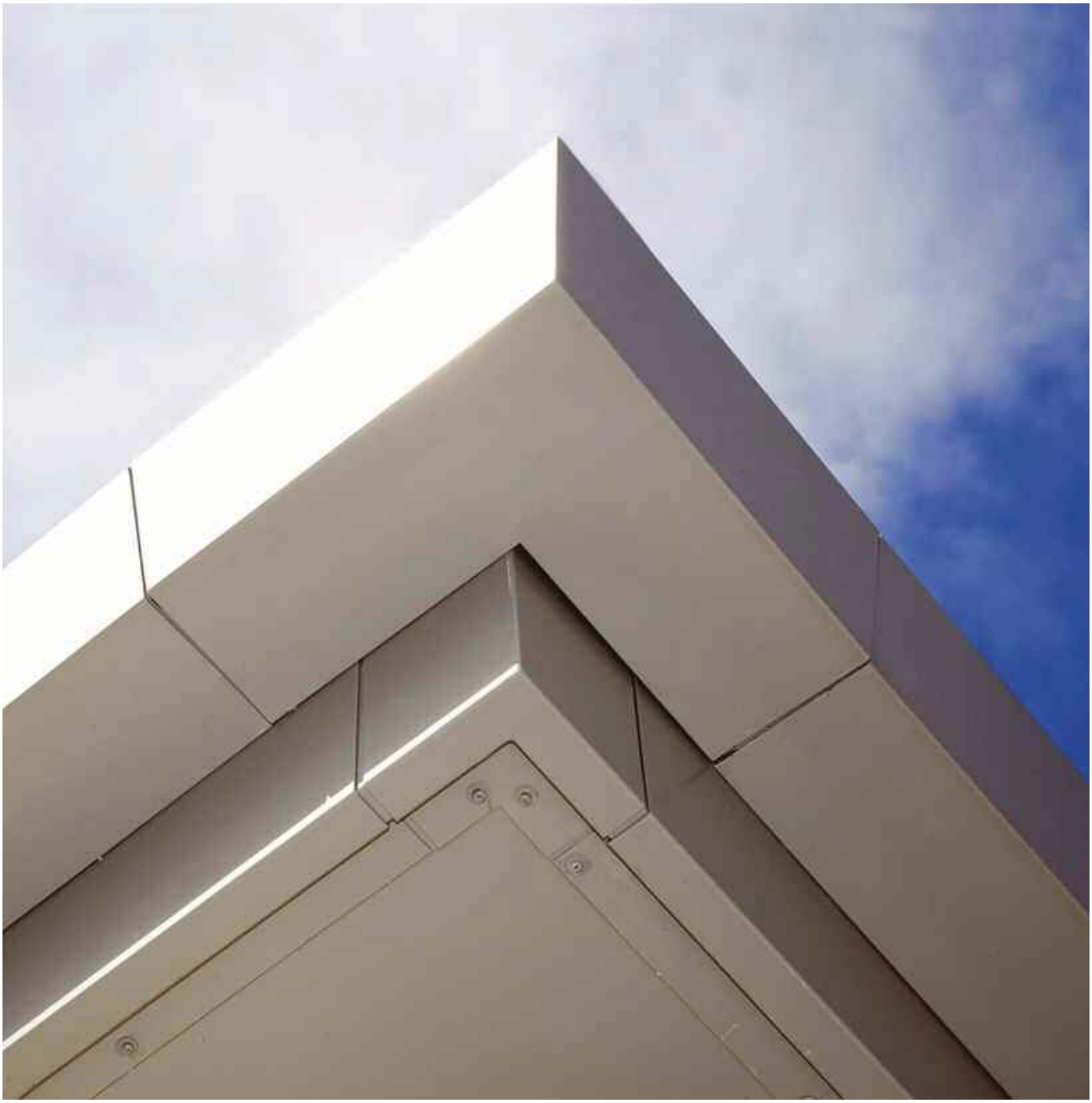
GX - Joggle Gutter



GX - Smooth Gutter



GX - Moulded Gutter



# GX – Pressed Aluminium Gutter Systems - Product Summary

A robust and fully engineered box section gutter range designed for traditional wet jointing on site. GX is offered in three profiles in a choice of sizes and is especially suited to applications where maximum capacity gutters are required.

## Applications

- High capacity gutters for traditional or modern buildings
- Fully compatible with Alumasc's Skyline fascia/soffit system
- Can provide an all aluminium eaves/soffit solution
- Gutters can be exposed or concealed

## Features & Performance

- 3 gutter profiles available in 3 metre lengths, in a choice of sizes
- Designed to fully accommodate thermal movement at every joint
- Lightweight, durable and non-corrodible
- Life expectancy of aluminium: 40 years (rural/suburban areas); up to 25 years (industrial/marine areas)
- Easy to handle and fix
- BBA approved
- Aluminium is 100% recyclable

## Colours & Finishes

- BBA approved polyester powder coatings, factory applied at Alumasc
- 26 standard colours with additional BS or RAL colours available to special order
- Also available in plain mill finish for on-site painting

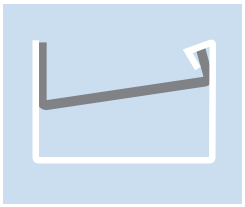
## Manufacture

- UK manufactured
- Gutter lengths, fittings and unions are pressed from various thicknesses of sheet aluminium (to BS EN 1462:1997, BS EN 612:1996 to BS EN 515:1993, BS EN 573:1995 and BS EN 485)

## Installation & Fixing

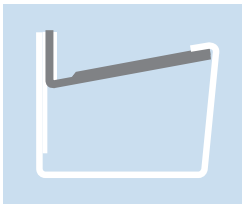
- Wet sealed and bolted joints - a simple, well proven method
- Simple screw fixing with bracketry, generally concealed after fixing
- GX Joggle is supported by top straps
- GX Smooth is designed for simple jointing for a sleek appearance, including no requirement for sole support brackets and visible screw fixing
- GX Moulded is wet jointed and is fixed directly to the building fabric
- Minimal maintenance requirements

## Gutter Profiles & Sizes



**Joggle**

100 x 75mm
125 x 100mm
150 x 100mm
150 x 150mm
200 x 150mm



**Smooth**

120 x 75mm
140 x 100mm
170 x 125mm
175 x 150mm
225 x 150mm



**Moulded**

113 x 75mm
140 x 100mm
160 x 100mm
175 x 150mm
200 x 150mm



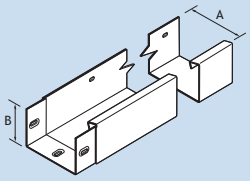
# GX – Joggle Gutters and Fittings



GX Joggle Gutters are available in 5 sizes, together with a complete range of fittings. The range comprises vertical sides, sharp angled bends, and a returned lip, plus top strap for increased strength and rigidity. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.
Gutter Lengths are left hand spigot. All fittings are double spigot.

## Gutter Lengths




| Gutter Size | Gutter Length | A | B | T | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | 3000mm | 102 | 76 | 2 | GXJ1/3MA |
| 125 x 100 | " | 127 | 102 | 2 | GXJ2/3MA |
| 150 x 100 | " | 152 | 102 | 2 | GXJ3/3MA |
| 150 x 150 | " | 152 | 152 | 2 | GXJ4/3MA |
| 200 x 150 | " | 204 | 152 | 2 | GXJ5/3MA |

Note: T = gutter thickness (nominal). Gutter lengths are supplied complete with top strap and fixings

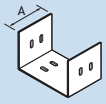
## Top Straps




| Gutter Size | A | Product Code |
|---|---|---|
| 100 x 75 | 25 | GXJ1/TS |
| 125 x 100 | 25 | GXJ2/TS |
| 150 x 100 | 25 | GXJ3/TS |
| 150 x 150 | 25 | GXJ4/TS |
| 200 x 150 | 25 | GXJ5/TS |

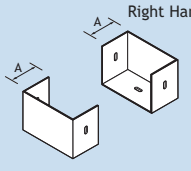
Note: Gutters and fittings are supplied with top straps included. The codes in this table are for additional items, ordered as extras

## Union Clips




| Gutter Size | A | Product Code |
|---|---|---|
| 100 x 75 | 76 | GXJ1/UCA |
| 125 x 100 | 76 | GXJ2/UCA |
| 150 x 100 | 76 | GXJ3/UCA |
| 150 x 150 | 76 | GXJ4/UCA |
| 200 x 150 | 76 | GXJ5/UCA |

## Stop-Ends - Internal



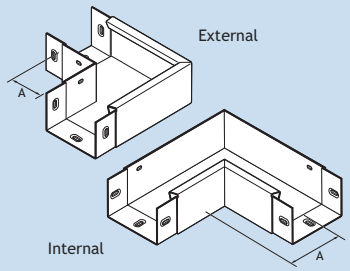

Note: Stop-Ends are supplied complete with fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 75 | Left Hand | 40 | GXJ1/SELHA |
| 125 x 100 | " | 40 | GXJ2/SELHA |
| 150 x 100 | " | 40 | GXJ3/SELHA |
| 150 x 150 | " | 40 | GXJ4/SELHA |
| 200 x 150 | " | 40 | GXJ5/SELHA |
| 100 x 75 | Right Hand | 40 | GXJ1/SERHA |
| 125 x 100 | " | 40 | GXJ2/SERHA |
| 150 x 100 | " | 40 | GXJ3/SERHA |
| 150 x 150 | " | 40 | GXJ4/SERHA |
| 200 x 150 | " | 40 | GXJ5/SERHA |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC. This note also applies to pages 61, 62 and 63.

# GX – Joggle Gutters and Fittings

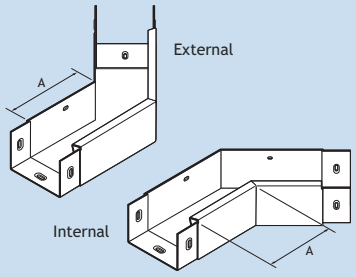
## 90° Angles




Note: Angles are supplied complete with top strap and fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 75 | External | 100 | GXJ1/EA90A |
| 125 x 100 | " | 100 | GXJ2/EA90A |
| 150 x 100 | " | 100 | GXJ3/EA90A |
| 150 x 150 | " | 100 | GXJ4/EA90A |
| 200 x 150 | " | 100 | GXJ5/EA90A |
| 100 x 75 | Internal | 100 | GXJ1/IA90A |
| 125 x 100 | " | 100 | GXJ2/IA90A |
| 150 x 100 | " | 100 | GXJ3/IA90A |
| 150 x 150 | " | 100 | GXJ4/IA90A |
| 200 x 150 | " | 100 | GXJ5/IA90A |

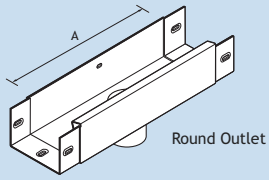
## 135° Angles

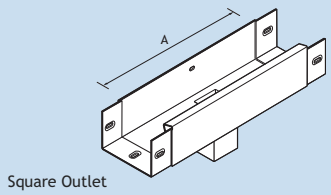



Note: Angles are supplied complete with top strap and fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 75 | External | 100 | GXJ1/EA135A |
| 125 x 100 | " | 100 | GXJ2/EA135A |
| 150 x 100 | " | 100 | GXJ3/EA135A |
| 150 x 150 | " | 100 | GXJ4/EA135A |
| 200 x 150 | " | 100 | GXJ5/EA135A |
| 100 x 75 | Internal | 100 | GXJ1/IA135A |
| 125 x 100 | " | 100 | GXJ2/IA135A |
| 150 x 100 | " | 100 | GXJ3/IA135A |
| 150 x 150 | " | 100 | GXJ4/IA135A |
| 200 x 150 | | 100 | GXJ5/IA135A |

## Running Outlets - Standard




Note: A choice of three pipe systems is available. Product codes denote that running outlets fit to Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Running Outlets are supplied complete with top strap and fixings

| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 100 x 75 | 63 dia | 300 | GXJ1/RO25A |
| 125 x 100 | " | 300 | GXJ2/RO25A |
| 150 x 100 | " | 300 | GXJ3/RO25A |
| 150 x 150 | " | 300 | GXJ4/RO25A |
| 200 x 150 | " | 300 | GXJ5/RO25A |
| 100 x 75 | 75m dia | 300 | GXJ1/RO30A |
| 125 x 100 | " | 300 | GXJ2/RO30A |
| 150 x 100 | " | 300 | GXJ3/RO30A |
| 150 x 150 | " | 300 | GXJ4/RO30A |
| 200 x 150 | " | 300 | GXJ5/RO30A |
| 125 x 100 | 100 dia | 300 | GXJ2/RO40A |
| 150 x 100 | " | 300 | GXJ3/RO40A |
| 150 x 150 | " | 300 | GXJ4/RO40A |
| 200 x 150 | " | 300 | GXJ5/RO40A |
| 100 x 75 | 75 x 75 | 300 | GXJ1/SO33A |
| 125 x 100 | " | 300 | GXJ2/SO33A |
| 150 x 100 | " | 300 | GXJ3/SO33A |
| 150 x 150 | " | 300 | GXJ4/SO33A |
| 200 x 150 | " | 300 | GXJ5/SO33A |
| 100 x 75 | 100 x 75 | 300 | GXJ1/SO43A |
| 125 x 100 | " | 300 | GXJ2/SO43A |
| 150 x 100 | " | 300 | GXJ3/SO43A |
| 150 x 150 | " | 300 | GXJ4/SO43A |
| 200 x 150 | " | 300 | GXJ5/SO43A |
| 125 x 100 | 100 x 100 | 300 | GXJ2/SO44A |
| 150 x 100 | " | 300 | GXJ3/SO44A |
| 150 x 150 | " | 300 | GXJ4/SO44A |
| 200 x 150 | " | 300 | GXJ5/SO44A |

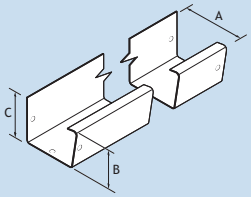
# GX – Smooth Gutters and Fittings



GX Smooth Gutters are available in 5 sizes, together with a complete range of fittings. The range comprises soft corner radii and an inclined front wall terminating to a radiused lip, and is directly fixing to the building fabric. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

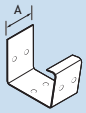
## Gutter Lengths




| Gutter Size | Gutter Length | A | B | C | T | Product Code |
|---|---|---|---|---|---|---|
| 120 x 75 | 3000mm | 121 | 75 | 95 | 1.5 | GXS1/3MA |
| 140 x 100 | " | 140 | 98 | 119 | 1.5 | GXS2/3MA |
| 170 x 125 | " | 170 | 125 | 145 | 1.5 | GXS3/3MA |
| 175 x 150 | " | 176 | 150 | 170 | 1.5 | GXS4/3MA |
| 225 x 150 | " | 224 | 150 | 170 | 1.5 | GXS5/3MA |

Note: T = gutter thickness (nominal). Gutter lengths are supplied complete with union clip, bracket strap and fixings

## Union Clips




| Gutter Size | A | Product Code |
|---|---|---|
| 120 x 75 | 76 | GXS1/UCA |
| 140 x 100 | 76 | GXS2/UCA |
| 170 x 125 | 76 | GXS3/UCA |
| 175 x 150 | 76 | GXS4/UCA |
| 225 x 150 | 76 | GXS5/UCA |

Note: Gutters & fittings are supplied with union clips included. The codes in this table are for additional items, ordered as extras

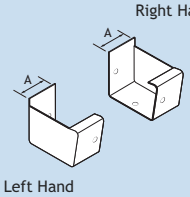
## Bracket/Straps




| Gutter Size | A | Product Code |
|---|---|---|
| 120 x 75 | 110 | GXS1/BRKA |
| 140 x 100 | 110 | GXS2/BRKA |
| 170 x 125 | 110 | GXS3/BRKA |
| 175 x 150 | 110 | GXS4/BRKA |
| 225 x 150 | 110 | GXS5/BRKA |

Note: Gutters & fittings are supplied with bracket straps included. The codes in this table are for additional items, ordered as extras

## Stop-Ends - Internal

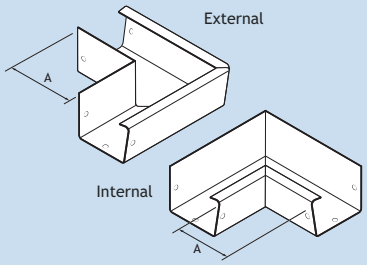



Note: Stop-Ends are supplied complete with union clip and fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 120 x 75 | Left Hand | 100 | GXS1/SELA |
| 140 x 100 | " | 100 | GXS2/SELA |
| 170 x 125 | " | 100 | GXS3/SELA |
| 175 x 150 | " | 100 | GXS4/SELA |
| 225 x 150 | " | 100 | GXS5/SELA |
| 120 x 75 | Right Hand | 100 | GXS1/SERA |
| 140 x 100 | " | 100 | GXS2/SERA |
| 170 x 125 | " | 100 | GXS3/SERA |
| 175 x 150 | " | 100 | GXS4/SERA |
| 225 x 150 | " | 100 | GXS5/SERA |

# GX – Smooth Gutters and Fittings

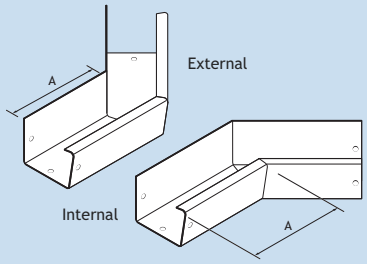
## 90° Angles




Note: Angles are supplied complete with union clip, bracket strap and fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 120 x 75 | External | 250 | GXS1/EA90A |
| 140 x 100 | " | 250 | GXS2/EA90A |
| 170 x 125 | " | 250 | GXS3/EA90A |
| 175 x 150 | " | 250 | GXS4/EA90A |
| 225 x 150 | " | 250 | GXS5/EA90A |
| 120 x 75 | Internal | 250 | GXS1/IA90A |
| 140 x 100 | " | 250 | GXS2/IA90A |
| 170 x 125 | " | 250 | GXS3/IA90A |
| 175 x 150 | " | 250 | GXS4/IA90A |
| 225 x 150 | " | 250 | GXS5/IA90A |

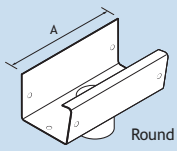
## 135° Angles

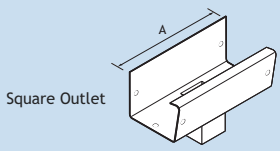



Note: Angles are supplied complete with union clip, bracket strap and fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 120 x 75 | External | 250 | GXS1/EA135A |
| 140 x 100 | " | 250 | GXS2/EA135A |
| 170 x 125 | " | 250 | GXS3/EA135A |
| 175 x 150 | " | 250 | GXS4/EA135A |
| 225 x 150 | " | 250 | GXS5/EA135A |
| 120 x 75 | Internal | 250 | GXS1/IA135A |
| 140 x 100 | " | 250 | GXS2/IA135A |
| 170 x 125 | " | 250 | GXS3/IA135A |
| 175 x 150 | " | 250 | GXS4/IA135A |
| 225 x 150 | " | 250 | GXS5/IA135A |

## Running Outlets - Standard




Note: A choice of three pipe systems is available. Product codes denote that running outlets fit to Heritage socketed aluminium pipes.
Add suffix /F to product code to fit Flushjoint or Guardian pipes

Running Outlets are supplied complete with union clip, bracket strap and fixings

| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 120 x 75 | 63 dia | 500 | GXS1/RO25A |
| 140 x 100 | " | 500 | GXS2/RO25A |
| 170 x 125 | " | 500 | GXS3/RO25A |
| 175 x 150 | " | 500 | GXS4/RO25A |
| 225 x 150 | " | 500 | GXS5/RO25A |
| 120 x 75 | 75 dia | 500 | GXS1/RO30A |
| 140 x 100 | " | 500 | GXS2/RO30A |
| 170 x 125 | " | 500 | GXS3/RO30A |
| 175 x 150 | " | 500 | GXS4/RO30A |
| 225 x 150 | " | 500 | GXS5/RO30A |
| 140 x 100 | 100 dia | 500 | GXS2/RO40A |
| 170 x 125 | " | 500 | GXS3/RO40A |
| 175 x 150 | " | 500 | GXS4/RO40A |
| 225 x 150 | " | 500 | GXS5/RO40A |
| 120 x 75 | 75 X 75 | 500 | GXS1/SO33A |
| 140 x 100 | " | 500 | GXS2/SO33A |
| 170 x 125 | " | 500 | GXS3/SO33A |
| 175 x 150 | " | 500 | GXS4/SO33A |
| 225 x 150 | " | 500 | GXS5/SO33A |
| 120 x 75 | 100 x 75 | 500 | GXS1/SO43A |
| 140 x 100 | " | 500 | GXS2/SO43A |
| 170 x 125 | " | 500 | GXS3/SO43A |
| 175 x 150 | " | 500 | GXS4/SO43A |
| 225 x 150 | " | 500 | GXS5/SO43A |
| 140 x 100 | 100 x 100 | 500 | GXS2/SO44A |
| 170 x 125 | " | 500 | GXS3/SO44A |
| 175 x 150 | " | 500 | GXS4/SO44A |
| 225 x 150 | " | 500 | GXS5/SO44A |

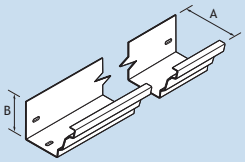
# GX – Moulded Gutters and Fittings



GX Moulded Gutters are available in 5 sizes, together with a complete range of fittings. In larger sizes the front wall is restrained by a top strap. The range is direct fixed to the building fabric. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: The GX Moulded range does not require brackets as it is direct fixed through the vertical back at pre-drilled, 600mm centre fixing holes.
All dimensions are in mm unless shown otherwise.
Gutter sizes shown are nominal.

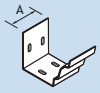
## Gutter Lengths




| Gutter Size | Gutter Length | A | B | T | Product Code |
|---|---|---|---|---|---|
| 113 x 75 | 3000m | 113 | 76 | 2 | GXM1/3MA |
| 140 x 100 | " | 139 | 102 | 2 | GXM2/3MA |
| 160 x 100 | " | 162 | 102 | 2 | GXM3/3MA |
| 175 x 150 | " | 175 | 152 | 3 | GXM4/3MA |
| 200 x 150 | " | 207 | 152 | 3 | GXM5/3MA |

Note: T = gutter thickness (nominal)
Gutter lengths are supplied complete with union clip and fixings

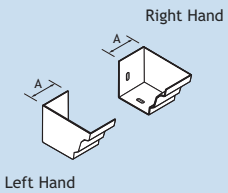
## Union Clips




| Gutter Size | A | Product Code |
|---|---|---|
| 113 x 75 | 76 | GXM1/UCA |
| 140 x 100 | 76 | GXM2/UCA |
| 160 x 100 | 76 | GXM3/UCA |
| 175 x 150 | 76 | GXM4/UCA |
| 200 x 150 | 76 | GXM5/UCA |

Note: Gutters and fittings are supplied with union clips included.
The codes in this table are for additional items, ordered as extras

## Stop-Ends - Internal



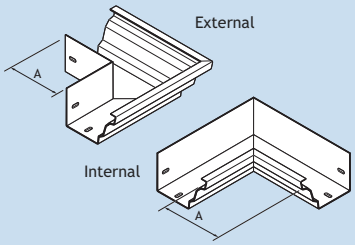

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 113 x 75 | Left Hand | 40 | GXM1/SELA |
| 140 x 100 | " | 40 | GXM2/SELA |
| 160 x 100 | " | 40 | GXM3/SELA |
| 175 x 150 | " | 40 | GXM4/SELA |
| 200 x 150 | " | 40 | GXM5/SELA |
| 113 x 75 | Right Hand | 40 | GXM1/SERA |
| 140 x 100 | " | 40 | GXM2/SERA |
| 160 x 100 | " | 40 | GXM3/SERA |
| 175 x 150 | " | 40 | GXM4/SERA |
| 200 x 150 | " | 40 | GXM5/SERA |

Note: Stop-Ends are supplied complete with fixings

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC. This note also applies to page 65.

# GX – Moulded Gutters and Fittings

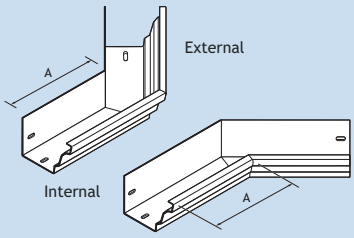
## 90° Angles




Note: Angles are supplied complete with union clip and fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 113 x 75 | External | 150 | GXM1/EA90A |
| 140 x 100 | " | 150 | GXM2/EA90A |
| 160 x 100 | " | 150 | GXM3/EA90A |
| 175 x 150 | " | 150 | GXM4/EA90A |
| 200 x 150 | " | 150 | GXM5/EA90A |
| 113 x 75 | Internal | 150 | GXM1/IA90A |
| 140 x 100 | " | 150 | GXM2/IA90A |
| 160 x 100 | " | 150 | GXM3/IA90A |
| 175 x 150 | " | 150 | GXM4/IA90A |
| 200 x 150 | " | 150 | GXM5/IA90A |

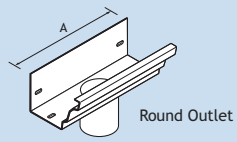
## 135° Angles

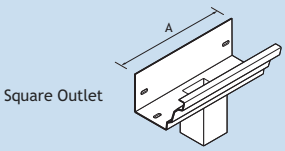



Note: Angles are supplied complete with union clip and fixings

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 113 x 75 | External | 150 | GXM1/EA135A |
| 140 x 100 | " | 150 | GXM2/EA135A |
| 160 x 100 | " | 150 | GXM3/EA135A |
| 175 x 150 | " | 150 | GXMS4/EA135A |
| 200 x 150 | " | 150 | GXM5/EA135A |
| 113 x 75 | Internal | 150 | GXM1/IA135A |
| 140 x 100 | " | 150 | GXM2/IA135A |
| 160 x 100 | " | 150 | GXM3/IA135A |
| 175 x 150 | " | 150 | GXM4/IA135A |
| 200 x 150 | " | 150 | GXM5/IA135A |

## Running Outlets - Standard




Note: A choice of three pipe systems is available. Product codes denote that running outlets fit to Heritage socketed aluminium pipes. Add suffix /F to product code to fit Flushjoint or Guardian pipes

Running Outlets are supplied complete with union clip and fixings

| Gutter Size | Pipe Size | A | Product Code |
|---|---|---|---|
| 113 x 75 | 63 dia | 300 | GXM1/RO25A |
| 140 x 100 | " | 300 | GXM2/RO25A |
| 160 x 100 | " | 300 | GXM3/RO25A |
| 175 x 150 | " | 300 | GXM4/RO25A |
| 200 x 150 | " | 300 | GXM5/RO25A |
| 113 x 75 | 75 dia | 300 | GXM1/RO30A |
| 140 x 100 | " | 300 | GXM2/RO30A |
| 160 x 100 | " | 300 | GXM3/RO30A |
| 175 x 150 | " | 300 | GXM4/RO30A |
| 200 x 150 | " | 300 | GXM5/RO30A |
| 140 x 100 | 100 dia | 300 | GXM2/RO40A |
| 160 x 100 | " | 300 | GXM3/RO40A |
| 175 x 150 | " | 300 | GXM4/RO40A |
| 200 x 150 | " | 300 | GXM5/RO40A |
| 113 x 75 | 75 x 75 | 300 | GXM1/SO33A |
| 140 x 100 | " | 300 | GXM2/SO33A |
| 160 x 100 | " | 300 | GXM3/SO33A |
| 175 x 150 | " | 300 | GXM4/SO33A |
| 200 x 150 | " | 300 | GXM5/SO33A |
| 113 x 75 | 100 x 75 | 300 | GXM1/SO43A |
| 140 x 100 | " | 300 | GXM2/SO43A |
| 160 x 100 | " | 300 | GXM3/SO43A |
| 175 x 150 | " | 300 | GXM4/SO43A |
| 200 x 150 | " | 300 | GXM5/SO43A |
| 140 x 100 | 100 x 100 | 300 | GXM2/SO44A |
| 160 x 100 | " | 300 | GXM3/SO44A |
| 175 x 150 | " | 300 | GXM4/SO44A |
| 200 x 150 | " | 300 | GXM5/SO44A |

# Flushjoint – Aluminium Downpipe System - Product Summary



Flushjoint - Circular Pipe



Flushjoint - Square Pipe



Flushjoint - Rectangular Pipe



# Flushjoint – Aluminium Downpipe System - Product Summary

A contemporary range of extruded aluminium downpipes. The Flushjoint system is based on concealed spigots which give a smooth, clean appearance that complements modern building design. The pipes are mounted on brackets to stand clear of the structure.

## Applications

- Contemporary pipework system suitable for new build and refurbishment projects
- Compatible with Heritage, Aqualine and GX gutter systems
- Flushjoint is not designed for use in underground drainage or as part of a soil or waste system

## Features & Performance

- Choice of circular, square and rectangular pipes
- Hidden spigot jointing arrangement used to achieve completely smooth external appearance
- Material hardness and fixing mechanisms give excellent rigidity and high impact resistance
- Lightweight, durable and non-corrodible
- Life expectancy of aluminium: 40 years (rural/suburban areas); up to 25 years (industrial/marine areas)
- Easy to handle and fix
- Aluminium is 100% recyclable

## Colours & Finishes

- BBA approved polyester powder coatings, factory applied at Alumasc
- 26 standard colours with additional BS or RAL colours available to special order
- Also available in plain mill finish for on-site painting

## Manufacture

- UK manufactured
- Made from extruded aluminium to BS EN 12020:2001, BS EN 515:1993, BS EN 573:1995 and BS EN 755, from grade 6063 T6 alloy

## Installation & Fixing

- Flushjoint pipework is built from the gutter downwards starting with the offsets and bends
- A choice of brackets are available to give varying projections
- Brackets secure pipework with minimum visual intrusion
- Minimal maintenance requirements



## Pipe Profiles & Sizes



**Circular Pipe**

63mm dia
75mm dia
100mm dia
150mm dia



**Square Pipe**

75 x 75 mm
100 x 100 mm



**Rectangular Pipe**

100 x 75 mm

# Flushjoint – Circular Pipes and Fittings



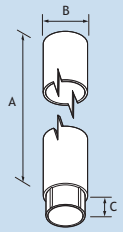
Flushjoint Circular Pipes are available in 4 sizes and 2 pipe lengths, together with a complete range of fittings. Flush spigot pipe connection for virtually undetectable joints. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: Flushjoint can be used with any Alumasc Gutter System, providing the girth of the gutter is sufficient to accommodate the cross section area of the pipe. Running outlets are made to order according to choice of gutter and project requirements.

All dimensions are in mm unless shown otherwise.

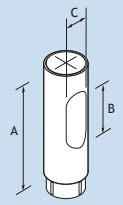
Pipe sizes shown are nominal.

## Pipes



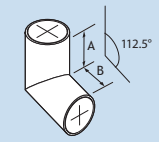

| Pipe Size | Pipe Length (A) | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 3000mm | 63 | 40 | CP25/3MA |
| " | 2000mm | 63 | 40 | CP25/2MA |
| " | 1000mm | 63 | 40 | CP25/1MA |
| 75 dia | 3000mm | 76.5 | 40 | CP30/3MA |
| " | 2000mm | 76.5 | 40 | CP30/2MA |
| " | 1000mm | 76.5 | 40 | CP30/1MA |
| 100 dia | 3000mm | 102 | 40 | CP40/3MA |
| " | 2000mm | 102 | 40 | CP40/2MA |
| " | 1000mm | 102 | 40 | CP40/1MA |
| 150 dia | 3000mm | 152 | 40 | CP60/3MA |
| " | 2000mm | 152 | 40 | CP60/2MA |
| " | 1000mm | 152 | 40 | CP60/1MA |

## Access Pipes




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 300 | 150 | 50 | CP25/ACPA |
| 75 dia | 300 | 150 | 60 | CP30/ACPA |
| 100 dia | 300 | 150 | 70 | CP40/ACPA |
| 150 dia | 400 | 200 | 100 | CP60/ACPA |

## Shoes

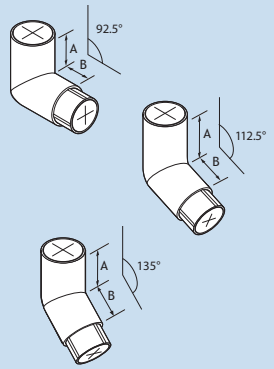



| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 63 dia | 100 | 25 | CP25/SHA |
| 75 dia | 100 | 25 | CP30/SHA |
| 100 dia | 100 | 25 | CP40/SHA |
| 150 dia | 125 | 30 | CP60/SHA |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

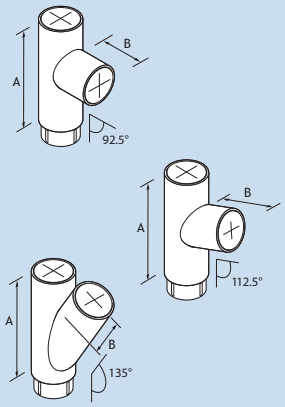
# Flushjoint – Circular Pipes and Fittings

## Bends



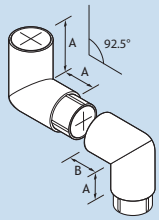

| Pipe Size | Type | A | B | Product Code |
|---|---|---|---|---|
| 63 dia | 92.5 Degree | 100 | 100 | CP25/B/92A |
| 75 dia | " | 100 | 100 | CP30/B/92A |
| 100 dia | " | 100 | 100 | CP40/B/92A |
| 150 dia | " | 100 | 100 | CP60/B/92A |
| 63 dia | 112.5 Degree | 100 | 100 | CP25/B/112A |
| 75 dia | " | 100 | 100 | CP30/B/112A |
| 100 dia | " | 100 | 100 | CP40/B/112A |
| 150 dia | " | 100 | 100 | CP60/B/112A |
| 63 dia | 135 Degree | 100 | 100 | CP25/B/135A |
| 75 dia | " | 100 | 100 | CP30/B/135A |
| 100 dia | " | 100 | 100 | CP40/B/135A |
| 150 dia | " | 100 | 100 | CP60/B/135A |

## Branches




| Pipe Size | Type | A | B | Product Code |
|---|---|---|---|---|
| 63 dia | 92.5 Degree | 300 | 100 | CP25/BR/92A |
| 75 dia | " | 300 | 100 | CP30/BR/92A |
| 100 dia | " | 300 | 100 | CP40/BR/92A |
| 150 dia | " | 400 | 150 | CP60/BR/92A |
| 63 dia | 112.5 Degree | 300 | 100 | CP25/BR/112A |
| 75 dia | " | 300 | 100 | CP30/BR/112A |
| 100 dia | " | 300 | 100 | CP40/BR/112A |
| 150 dia | " | 400 | 150 | CP60/BR/112A |
| 63 dia | 135 Degree | 300 | 100 | CP25/BR/135A |
| 75 dia | " | 300 | 100 | CP30/BR/135A |
| 100 dia | " | 300 | 100 | CP40/BR/135A |
| 150 dia | " | 400 | 150 | CP60/BR/135A |

## 92.5° Two Part Offsets

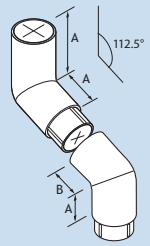



| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 63 dia | 250 | 100 | 250 | CP25/250/92A |
| " | 500 | 100 | 500 | CP25/500/92A |
| " | 750 | 100 | 750 | CP25/750/92A |
| " | 1000 | 100 | 1000 | CP25/1000/92A |
| 75 dia | 250 | 100 | 250 | CP30/250/92A |
| " | 500 | 100 | 500 | CP30/500/92A |
| " | 750 | 100 | 750 | CP30/750/92A |
| " | 1000 | 100 | 1000 | CP30/1000/92A |
| 100 dia | 250 | 100 | 250 | CP40/250/92A |
| " | 500 | 100 | 500 | CP40/500/92A |
| " | 750 | 100 | 750 | CP40/750/92A |
| " | 1000 | 100 | 1000 | CP40/1000/92A |
| 150 dia | 250 | 100 | 250 | CP60/250/92A |
| " | 500 | 100 | 500 | CP60/500/92A |
| " | 750 | 100 | 750 | CP60/750/92A |
| " | 1000 | 100 | 1000 | CP60/1000/92A |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

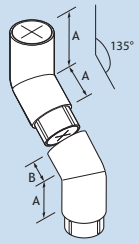
# Flushjoint – Circular Pipes and Fittings

## 112.5° Two Part Offsets



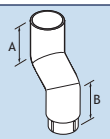

| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 63 dia | 250 | 100 | 250 | CP25/250/112A |
| " | 500 | 100 | 500 | CP25/500/112A |
| " | 750 | 100 | 750 | CP25/750/112A |
| " | 1000 | 100 | 1000 | CP25/1000/112A |
| 75 dia | 250 | 100 | 250 | CP30/250/112A |
| " | 500 | 100 | 500 | CP30/500/112A |
| " | 750 | 100 | 750 | CP30/750/112A |
| " | 1000 | 100 | 1000 | CP30/1000/112A |
| 100 dia | 250 | 100 | 250 | CP40/250/112A |
| " | 500 | 100 | 500 | CP40/500/112A |
| " | 750 | 100 | 750 | CP40/750/112A |
| " | 1000 | 100 | 1000 | CP40/1000/112A |
| 150 dia | 250 | 100 | 250 | CP60/250/112A |
| " | 500 | 100 | 500 | CP60/500/112A |
| " | 750 | 100 | 750 | CP60/750/112A |
| " | 1000 | 100 | 1000 | CP60/1000/112A |

## 135° Two Part Offsets




| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 63 dia | 250 | 100 | 250 | CP25/250/135A |
| " | 500 | 100 | 500 | CP25/500/135A |
| " | 750 | 100 | 750 | CP25/750/135A |
| " | 1000 | 100 | 1000 | CP25/1000/135A |
| 75 dia | 250 | 100 | 250 | CP30/250/135A |
| " | 500 | 100 | 500 | CP30/500/135A |
| " | 750 | 100 | 750 | CP30/750/135A |
| " | 1000 | 100 | 1000 | CP30/1000/135A |
| 100 dia | 250 | 100 | 250 | CP40/250/135A |
| " | 500 | 100 | 500 | CP40/500/135A |
| " | 750 | 100 | 750 | CP40/750/135A |
| " | 1000 | 100 | 1000 | CP40/1000/135A |
| 150 dia | 250 | 100 | 250 | CP60/250/135A |
| " | 500 | 100 | 500 | CP60/500/135A |
| " | 750 | 100 | 750 | CP60/750/135A |
| " | 1000 | 100 | 1000 | CP60/1000/135A |

## 135° Fixed Offsets




| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 63 dia | 75 | 100 | 100 | CP25/75/135A |
| 75 dia | 75 | 100 | 100 | CP30/75/135A |
| 100 dia | 75 | 100 | 100 | CP40/75/135A |

## Loose Spigots

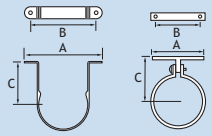



| Pipe Size | A | Product Code |
|---|---|---|
| 63 dia | 100 | RW1/SPIG/100 |
| 75 dia | 100 | RW2/SPIG/100 |
| 100 dia | 100 | RW3/SPIG/100 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Flushjoint – Circular Pipes and Fittings

## Standard Base Clips

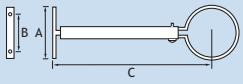



63 dia, 75 dia
100 dia

150 dia

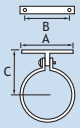
| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 124 | 100 | 65 | RW1/236 |
| 75 dia | 137 | 112 | 71 | RW2/237 |
| 100 dia | 163 | 138 | 90 | RW3/238 |
| 150 dia | 255 | 215 | 121 | RW60/PC |

## Extended Base Clips



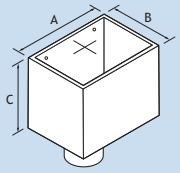

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 87 | 47 | 279 | RW1/364 |
| 75 dia | 87 | 47 | 285 | RW2/365 |
| 100 dia | 87 | 47 | 304 | RW3/366 |

## Small Base Clips




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 87 | 47 | 74 | RW1/SB/PC |
| 75 dia | 87 | 47 | 80 | RW2/SB/PC |
| 100 dia | 87 | 47 | 92 | RW3/SB/PC |

## Contemporary Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 63 dia | 250 | 180 | 200 | CP25/HOP |
| 75 dia | 250 | 180 | 200 | CP30/HOP |
| 100 dia | 250 | 180 | 200 | CP40/HOP |

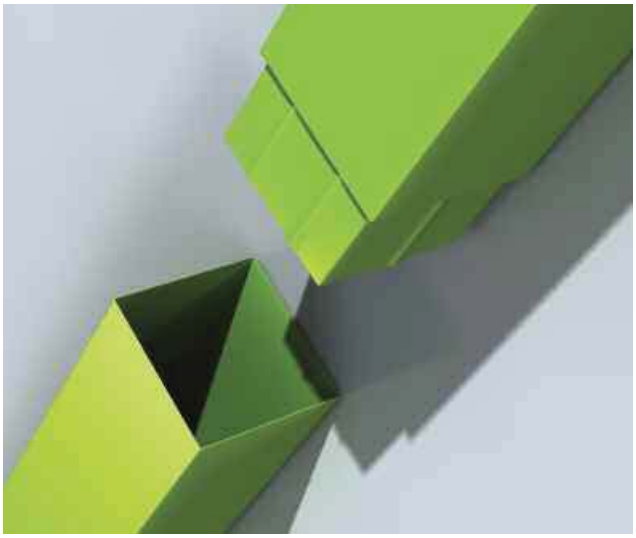
Note: Traditional design hopper heads can also be used if desired.
Please refer to sections of this brochure covering Heritage Pipes and Fittings.





Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Flushjoint – Square and Rectangular Pipes and Fittings



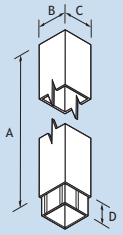
Flushjoint Square and Rectangular Pipes are available in 3 sizes and 2 pipe lengths, together with a complete range of fittings. Flush spigot pipe connection for virtually undetectable joints. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: Flushjoint can be used with any Alumasc Gutter System, providing the girth of the gutter is sufficient to accommodate the cross section area of the pipe. Running outlets are made to order according to choice of gutter and project requirements.

All dimensions are in mm unless shown otherwise.

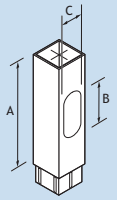
Pipe sizes shown are nominal.

## Pipes



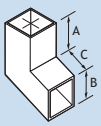

| Pipe Size | Pipe Length (A) | B | C | D | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | 3000mm | 72 | 72 | 40 | CP33/3MA |
| " | 2000mm | 72 | 72 | 40 | CP33/2MA |
| " | 1000mm | 72 | 72 | 40 | CP33/1MA |
| 100 x 75 | 3000mm | 102 | 76 | 40 | CP43/3MA |
| " | 2000mm | 102 | 76 | 40 | CP43/2MA |
| " | 1000mm | 102 | 76 | 40 | CP43/1MA |
| 100 x 100 | 3000mm | 102 | 102 | 40 | CP44/3MA |
| " | 2000mm | 102 | 102 | 40 | CP44/2MA |
| " | 1000mm | 102 | 102 | 40 | CP44/1MA |

## Access Pipes




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 300 | 150 | 60 | CP33/ACPA |
| 100 x 75 | 300 | 150 | 75 | CP43/ACPA |
| 100 x 100 | 300 | 150 | 75 | CP44/ACPA |

## Shoe

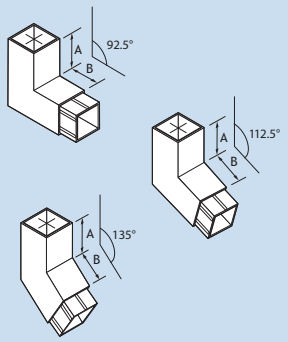



| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 100 | 55 | 25 | CP33/SHA |
| 100 x 75 | 100 | 70 | 25 | CP43/SHA |
| 100 x 100 | 100 | 70 | 25 | CP44/SHA |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

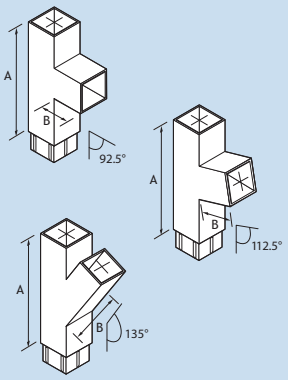
# Flushjoint – Square and Rectangular Pipes and Fittings

## Bends



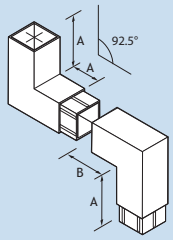

| Pipe Size | Type | A | B | Product Code |
|---|---|---|---|---|
| 75 x 75 | 92.5 Degree | 100 | 100 | CP33/B/92A |
| 100 x 75 | " | 100 | 100 | CP43/B/92A |
| 100 x 100 | " | 100 | 100 | CP44/B/92A |
| 75 x 75 | 112.5 Degree | 100 | 100 | CP33/B/112A |
| 100 x 75 | " | 100 | 100 | CP43/B/112A |
| 100 x 100 | " | 100 | 100 | CP44/B/112A |
| 75 x 75 | 135 Degree | 100 | 100 | CP33/B/135A |
| 100 x 75 | " | 100 | 100 | CP43/B/135A |
| 100 X 100 | " | 100 | 100 | CP44/B/135A |

## Branches




| Pipe Size | Type | A | B | Product Code |
|---|---|---|---|---|
| 75 x 75 | 92.5 Degree | 300 | 100 | CP33/BR/92A |
| 100 x 75 | " | 300 | 100 | CP43/BR/92A |
| 100 x 100 | " | 300 | 100 | CP44/BR/92A |
| 75 x 75 | 112.5 Degree | 300 | 100 | CP33/BR/112A |
| 100 x 75 | " | 300 | 100 | CP43/BR/112A |
| 100 x 100 | " | 300 | 100 | CP44/BR/112A |
| 75 x 75 | 135 Degree | 300 | 100 | CP33/BR/135A |
| 100 x 75 | " | 300 | 100 | CP43/BR/135A |
| 100 x 100 | " | 300 | 100 | CP44/BR/135A |

## 92.5° Two Part Offsets

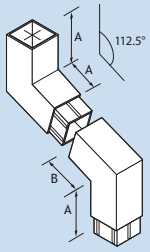



| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 75 x 75 | 250 | 100 | 250 | CP33/250/92A |
| " | 500 | 100 | 500 | CP33/500/92A |
| " | 750 | 100 | 750 | CP33/750/92A |
| " | 1000 | 100 | 1000 | CP33/1000/92A |
| 100 x 75 | 250 | 100 | 250 | CP43/250/92A |
| " | 500 | 100 | 500 | CP43/500/92A |
| " | 750 | 100 | 750 | CP43/750/92A |
| " | 1000 | 100 | 1000 | CP43/1000/92A |
| 100 x 100 | 250 | 100 | 250 | CP44/250/92A |
| " | 500 | 100 | 500 | CP44/500/92A |
| " | 750 | 100 | 750 | CP44/750/92A |
| " | 1000 | 100 | 1000 | CP44/1000/92A |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

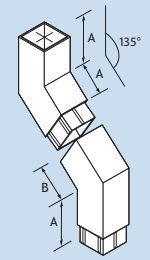
# Flushjoint – Square and Rectangular Pipes and Fittings

## 112.5° Two Part Offsets



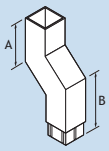

| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 75 x 75 | 250 | 100 | 250 | CP33/250/112A |
| " | 500 | 100 | 500 | CP33/500/112A |
| " | 750 | 100 | 750 | CP33/750/112A |
| " | 1000 | 100 | 1000 | CP33/1000/112A |
| 100 x 75 | 250 | 100 | 250 | CP43/250/112A |
| " | 500 | 100 | 500 | CP43/500/112A |
| " | 750 | 100 | 750 | CP43/750/112A |
| " | 1000 | 100 | 1000 | CP43/1000/112A |
| 100 x 100 | 250 | 100 | 250 | CP44/250/112A |
| " | 500 | 100 | 500 | CP44/500/112A |
| " | 750 | 100 | 750 | CP44/750/112A |
| " | 1000 | 100 | 1000 | CP44/1000/112A |

## 135° Two Part Offsets




| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 75 x 75 | 250 | 100 | 250 | CP33/250/135A |
| " | 500 | 100 | 500 | CP33/500/135A |
| " | 750 | 100 | 750 | CP33/750/135A |
| " | 1000 | 100 | 1000 | CP33/1000/135A |
| 100 x 75 | 250 | 100 | 250 | CP43/250/135A |
| " | 500 | 100 | 500 | CP43/500/135A |
| " | 750 | 100 | 750 | CP43/750/135A |
| " | 1000 | 100 | 1000 | CP43/1000/135A |
| 100 x 100 | 250 | 100 | 250 | CP44/250/135A |
| " | 500 | 100 | 500 | CP44/500/135A |
| " | 750 | 100 | 750 | CP44/750/135A |
| " | 1000 | 100 | 1000 | CP44/1000/135A |

## 135° Fixed Offsets




| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 75 x 75 | 75 | 100 | 100 | CP33/75/135A |
| 100 x 75 | 75 | 100 | 100 | CP43/75/135A |
| 100 x 100 | 75 | 100 | 100 | CP44/75/135A |

## Loose Spigots

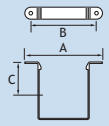



| Pipe Size | A | Product Code |
|---|---|---|
| 75 x 75 | 100 | RW33/SPIG/100 |
| 100 x 75 | 100 | RW43/SPIG/100 |
| 100 x 100 | 100 | RW44/SPIG/100 |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

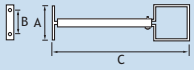
# Flushjoint – Square and Rectangular Pipes and Fittings

## Standard Base Clips



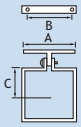

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 133 | 109 | 52 | RW33/PC |
| 100 x 75 | 163 | 138 | 54 | RW43/PC |
| 100 x 100 | 163 | 138 | 67 | RW44/PC |

## Extended Base Clips



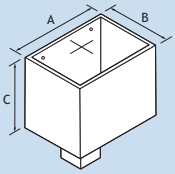

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 84 | 47 | 290 max | RW33/EX/PC |
| 100 x 75 | 84 | 47 | 292 max | RW43/EX/PC |
| 100 x 100 | 84 | 47 | 305 max | RW44/EX/PC |

## Small Base Clips




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 84 | 47 | 78 | RW33/SB/PC |
| 100 x 75 | 84 | 47 | 80 | RW43/SB/PC |
| 100 x 100 | 84 | 47 | 94 | RW44/SB/PC |

## Contemporary Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 250 | 180 | 200 | CP33/HOP |
| 100 x 75 | 250 | 180 | 200 | CP43/HOP |
| 100 x 100 | 250 | 180 | 200 | CP44/HOP |

Note: Traditional design hopper heads can also be used if desired.
Please refer to sections of this brochure covering Heritage Pipes and Fittings.



Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Guardian – Aluminium Security Pipe System - Product Summary



Guardian - Circular Pipe



Guardian - Square Pipe



Guardian - Rectangular Pipe



# Guardian – Aluminium Security Pipe System - Product Summary

A contemporary range of extruded aluminium downpipes designed for mounting flush with the building fabric. Guardian pipework has concealed brackets and concealed jointing which provides a high level of security.

## Applications

- Specifically designed for security conscious environments
- Suitable for new build and refurbishment projects
- Compatible with Heritage, Aqualine and GX gutter systems

## Features & Performance

- Choice of circular, square and rectangular pipes
- Profiles fit flush to the wall making them vandal resistant and ungrippable
- Lightweight, durable and non-corrodible
- Life expectancy of aluminium: 40 years (rural/suburban areas); up to 25 years (industrial/marine areas)
- Easy to handle and fix
- Aluminium is 100% recyclable

## Colours & Finishes

- BBA approved polyester powder coatings, factory applied at Alumasc
- 26 standard colours with additional BS or RAL colours available to special order
- Also available in plain mill finish for on-site painting

## Manufacture

- UK manufactured
- Made from extruded aluminium to BS EN 12020:2001, BS EN 515:1993, BS EN 573:1995 and BS EN 755, from grade 6063 T6 alloy

## Installation & Fixing

- Method of fixing allows pipes to be fitted into a recess in the facade
- Systems are assembled from the ground upwards connecting to running outlets
- Special drain connectors are available for connection to gullies
- Minimal maintenance requirements



## Pipe Profiles & Sizes



**Circular Pipe**

86 x 106mm
111 x 138mm



**Square Pipe**

80 x 72mm
109 x 102mm



**Rectangular Pipe**

84 x 102mm

# Guardian – Circular Pipes and Fittings

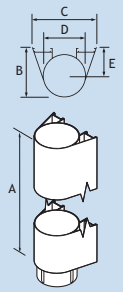


Guardian Circular Pipes are available in 2 sizes and pipe lengths of 2m. Concealed flush fixing ensures that the pipe cannot be scaled. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: Guardian is a bespoke manufactured range. Contact Alumasc Technical Services for more information.

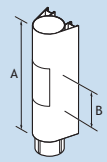
All dimensions are in mm unless shown otherwise.

## Pipes



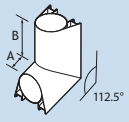

| Pipe Size | Pipe Length (A) | B | C | D | E | Product Code |
|---|---|---|---|---|---|---|
| 86 x 106 | 2000mm | 86 | 106 | 70 | 47 | HSP/V30/2MA |
| " | 1000mm | 86 | 106 | 70 | 47 | HSP/V30/1MA |
| 111 x 138 | 2000mm | 111 | 138 | 102 | 60 | HSP/V40/2MA |
| " | 1000mm | 111 | 138 | 102 | 60 | HSP/V40/1MA |

## Access Pipes



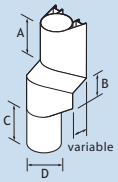

| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 86 x 106 | 300 | 150 | HSP/V30/ACP |
| 111 x 138 | 300 | 150 | HSP/V40/ACP |

## Shoe




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 86 x 106 | 30 | 100 | HSP/V30/SH |
| 111 x 138 | 30 | 100 | HSP/V40/SH |

## Drain Connector



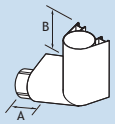

| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 86 x 106 | 100 | 100 | 100 | Variable | HSP/V30/ZADP |
| 111 x 138 | 100 | 100 | 100 | Variable | HSP/V40/ZADP |

Note: This is a made to order item. Dimensions are required from the wall to the centre of the drain prior to placing an order

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Guardian – Circular Pipes and Fittings

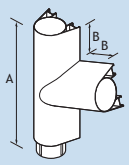
## Bend




| Pipe Size | A | Product Code |
|---|---|---|
| 86 x 106 | 100 | HSP/V30/ZBND |
| 111 x 138 | 100 | HSP/V40/ZBND |

Note: Please specify whether left, right, front or rear is required
Please specify whether 92.5, 112.5 or 135° is required

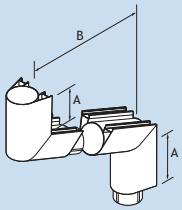
## Branch




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 86 x 106 | 300 | 100 | HSP/V30/ZBRN |
| 111 x 138 | 300 | 100 | HSP/V40/ZBRN |

Note: Please state whether left or right hand is required
Please specify whether 92.5, 112.5 or 135° is required

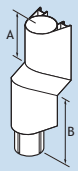
## Offset




| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 86 x 106 | Up to 305 | 100 | 305 | HSP/V30/305 |
| 111 x 138 | Up to 305 | 100 | 305 | HSP/V40/305 |
| 86 x 106 | Up to 533 | 100 | 533 | HSP/V30/533 |
| 111 x 138 | Up to 533 | 100 | 533 | HSP/V40/533 |
| 86 x 106 | Up to 762 | 100 | 762 | HSP/V30/762 |
| 111 x 138 | Up to 762 | 100 | 762 | HSP/V40/762 |

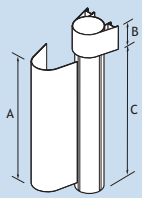
Note: Please specify whether 92.5, 112.5 or 135° is required
Front, left and right offsets also available

## 135° Fixed Offsets



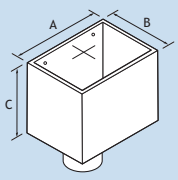

| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 86 x 106 | 75 | 100 | 100 | HSP/V30/75/135A |
| 111 x 138 | 75 | 100 | 100 | HSP/V40/75/135A |

## Make-Up Piece




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 86 x 106 | 340 | 60 | 380 | HSP/V30/MUP |
| 111 x 138 | 340 | 60 | 380 | HSP/V40/MUP |

## Contemporary Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 86 x 106 | 250 | 180 | 200 | HSP/V30/HOP |
| 111 x 138 | 250 | 180 | 200 | HSP/V40/HOP |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Guardian – Square and Rectangular Pipes and Fittings

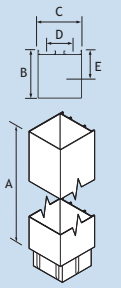


Guardian Square Pipes are available in 3 square/rectangular sizes and pipe lengths of 2m. Concealed flush fixing ensures that the pipe cannot be scaled. Factory finished in a choice of coloured BBA certificated powder coatings.

Notes: Guardian is a bespoke manufactured range. Contact Alumasc Technical Services for more information.

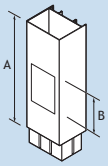
All dimensions are in mm unless shown otherwise.

## Pipes



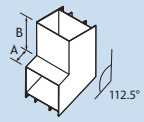

| Pipe Size | Pipe Length (A) | B | C | D | E | Product Code |
|---|---|---|---|---|---|---|
| 80 x 72 | 2000mm | 80 | 72 | 41 | 44 | HSP/S33/2MA |
| 80 x 72 | 1000mm | 80 | 72 | 41 | 44 | HSP/S33/1MA |
| 84 x 102 | 2000mm | 84 | 102 | 71 | 46 | HSP/S43/2MA |
| 84 x 102 | 1000mm | 84 | 102 | 71 | 46 | HSP/S43/1MA |
| 109 x 102 | 2000mm | 109 | 102 | 71 | 59 | HSP/S44/2MA |
| 109 x 102 | 1000mm | 109 | 102 | 71 | 59 | HSP/S44/1MA |

## Access Pipes



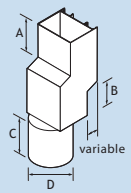

| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 80 x 72 | 300 | 150 | HSP/S33/ACP |
| 84 x 102 | 300 | 150 | HSP/S43/ACP |
| 109 x 102 | 300 | 150 | HSP/S44/ACP |

## Shoe




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 80 x 72 | 30 | 100 | HSP/S33/SH |
| 84 x 102 | 30 | 305 | HSP/S43/SH |
| 109 x 102 | 30 | 100 | HSP/S44/SH |

## Drain Connector



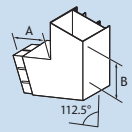

| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 80 x 72 | 100 | 100 | 100 | Variable | HSP/S33/ZADP |
| 84 x 102 | 100 | 100 | 100 | Variable | HSP/S43/ZADP |
| 109 x 102 | 100 | 100 | 100 | Variable | HSP/S44/ZADP |

Note: This is a made to order item. Dimensions are required from the wall to the centre of the drain prior to placing an order

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Guardian – Square and Rectangular Pipes and Fittings

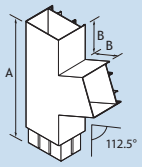
## Bend




| Pipe Size | A | Product Code |
|---|---|---|
| 80 x 72 | 100 | HSP/S33/ZBND |
| 84 x 102 | 100 | HSP/S43/ZBND |
| 109 x 102 | 100 | HSP/S44/ZBND |

Note: Please specify whether left, right, front or rear is required. Please specify whether 92.5, 112.5 or 135° is required

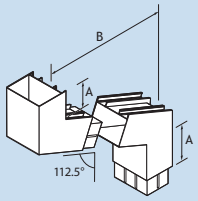
## Branch




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 80 x 72 | 300 | 100 | HSP/S33/ZBRN |
| 84 x 102 | 300 | 100 | HSP/S43/ZBRN |
| 109 x 102 | 300 | 100 | HSP/S44/ZBRN |

Note: Please state whether left or right hand is required. Please specify whether 92.5, 112.5 or 135° is required

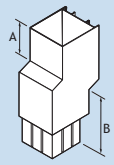
## Offset




| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 80 x 72 | Up to 305 | 100 | 305 | HSP/S33/305 |
| 84 x 102 | Up to 305 | 100 | 305 | HSP/S43/305 |
| 109 x 102 | Up to 305 | 100 | 305 | HSP/S44/305 |
| 80 x 72 | Up to 533 | 100 | 533 | HSP/S33/533 |
| 84 x 102 | Up to 533 | 100 | 533 | HSP/S43/533 |
| 109 x 102 | Up to 533 | 100 | 533 | HSP/S44/533 |
| 80 x 72 | Up to 762 | 100 | 762 | HSP/S33/762 |
| 84 x 102 | Up to 762 | 100 | 762 | HSP/S43/762 |
| 109 x 102 | Up to 762 | 100 | 762 | HSP/S44/762 |

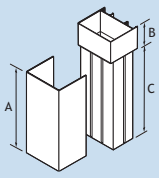
Note: Please specify whether 92.5, 112.5 or 135° is required. Front, left and right offsets also available

## 135° Fixed Offsets



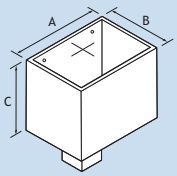

| Pipe Size | Offset | A | B | Product Code |
|---|---|---|---|---|
| 80 x 72 | 75 | 100 | 100 | HSP/S33/75/135A |
| 84 x 102 | 75 | 100 | 100 | HSP/S43/75/135A |
| 109 x 102 | 75 | 100 | 100 | HSP/S44/75/135A |

## Make-Up Piece




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 80 x 72 | 340 | 60 | 380 | HSP/S33/MUP |
| 84 x 102 | 340 | 60 | 380 | HSP/S43/MUP |
| 109 x 102 | 340 | 60 | 380 | HSP/S44/MUP |

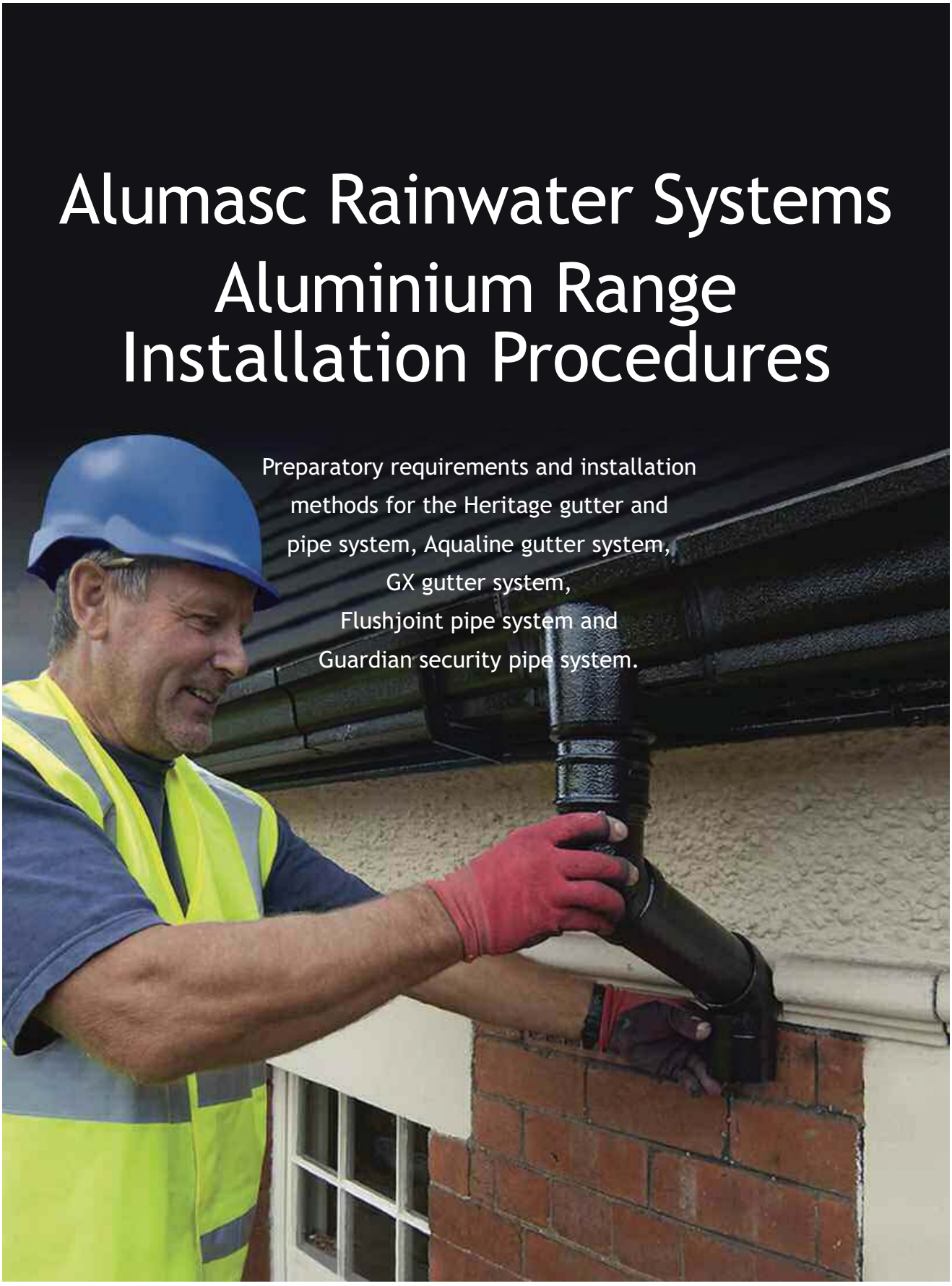
## Contemporary Rainwater Heads




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 80 x 72 | 250 | 180 | 200 | HSP/S33/HOP |
| 84 x 102 | 250 | 180 | 200 | HSP/S43/HOP |
| 109 x 102 | 250 | 180 | 200 | HSP/S44/HOP |

Note: The products are available in a plain mill finish or with a BBA accredited polyester powder coated finish. Product codes in the tables refer to the mill finish. For polyester powder coated finish please add the suffix /PPC.

# Alumasc Rainwater Systems Aluminium Range Installation Procedures



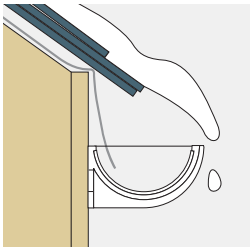
Preparatory requirements and installation methods for the Heritage gutter and pipe system, Aqualine gutter system, GX gutter system, Flushjoint pipe system and Guardian security pipe system.

# Aluminium Rainwater System 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.

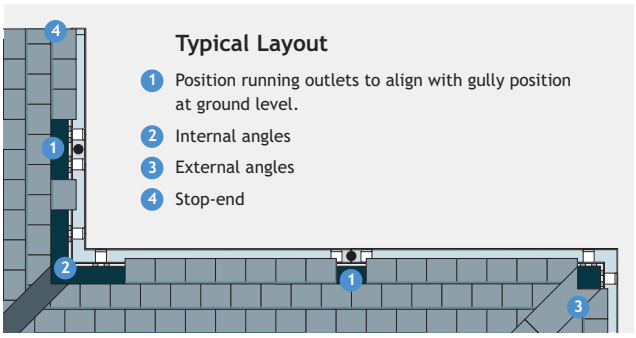


Fix brackets so as to position the gutter centrally and as close below the roof edge as possible, taking into consideration locality and roof slope finish.
If there is a risk of sliding snow, adjust the bracket positions to prevent snow hitting the front of the gutter. Extra fixings, brackets and snowboards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

Aluminium 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.

### Site Painting

Degrease with white spirit and clean thoroughly. Prime with zinc phosphate or similar aluminium primer, followed by at least two coats of full gloss paint on all exposed surfaces. Undercoating is not required. Where powder coated materials have been cut, it is necessary to deburr exposed edges and follow the above painting procedure.

### Health and Safety

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

### Storage and Handling

Colour 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.

Mill finish goods will have manufacturing blemishes such as grinding and fettling marks, welding will be visible on fabricated items and extruded/pressed aluminium items may also be vulnerable to scratch marks or blemishes caused in-transit. It is recommended mill finish material is painted on-site.

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

### 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.

### Care and Maintenance

Regularly clean out rainwater heads and gutters and ensure that downpipes are clear. Check joints and fixings are secure by periodic inspection no less than twice a year, preferably at the start of Autumn and end of Winter.

Mill finish goods will develop a protective grey aluminium oxide, however it is recommended mill finish material is painted on-site. Polyester powder coated surfaces can be cleaned by washing with warm detergent solution and leathering off.

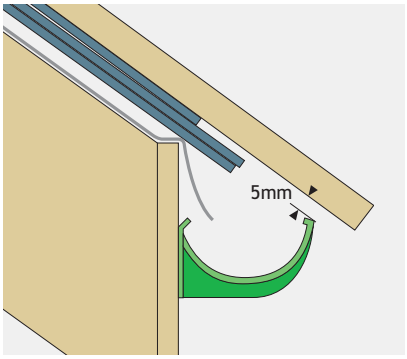
Aluminium rainwater systems installed in a coastal environment can be subject to harsh atmospheric conditions that can accelerate the oxidization process. Alumasc do not normally recommend using aluminium rainwater systems in such locations. However, applying a double coat of polyester powder coating prior to despatch, together with a strict and frequent maintenance regime, should result in the product having a life expectancy in excess of 15 years.

NB: This life expectancy depends on any installation damage being repaired immediately with appropriate touch-up paint, as should any site-cut ends exposing bare metal, which must be de-burred and then repainted in accordance with Alumasc's site painting procedure.

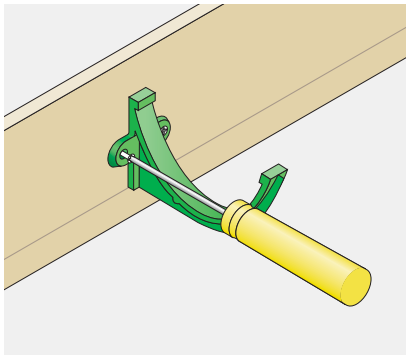
Please contact Alumasc Technical Services for further information.

# Installation – Heritage Gutters

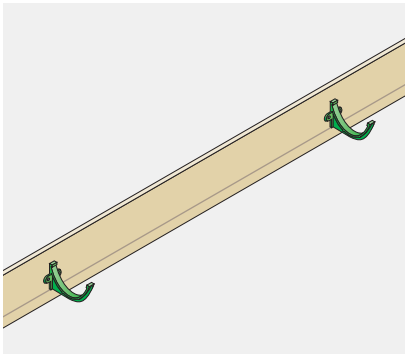
Heritage gutters are available in a choice of five profiles with a range of brackets to accommodate all types of eaves condition. Each profile range can be connected to aluminium pipework systems in either round, square or rectangular sections secured by standard and offset brackets. Assembly and installation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



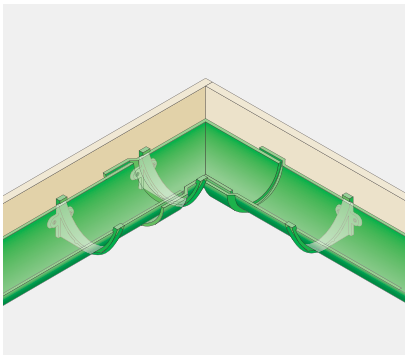

1. Using a straight edge or ruler, shim gutter brackets with 5mm clearance so that the last roof tile or slate will align with the mid point of the gutter.



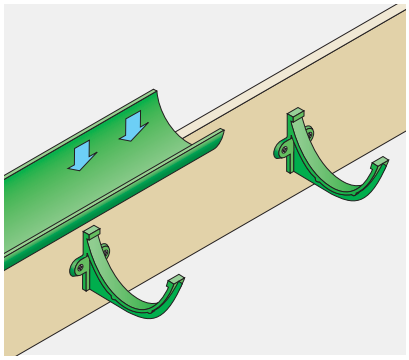
2. Generally, position brackets at 915mm centres. Allow at least 2 brackets per gutter length, 1 per angle and outlet.



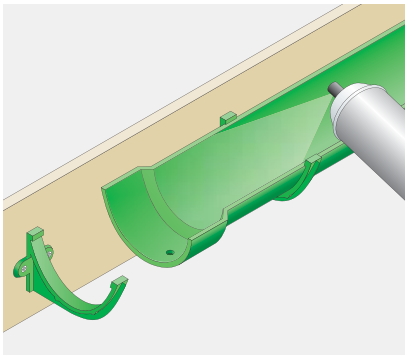
3. Use a string line to set out brackets to a fall of 1:600 to 1:350 (max) or if not possible, level.



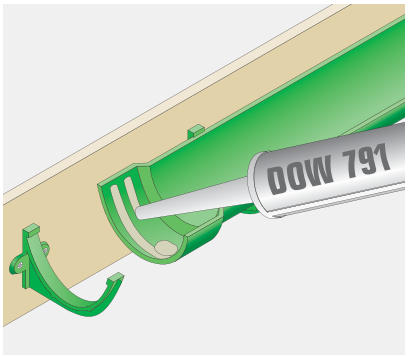
4. Plumb line outlets with gullies at ground level. Position angles, allowing an additional bracket adjacent to the joint with the gutter length.



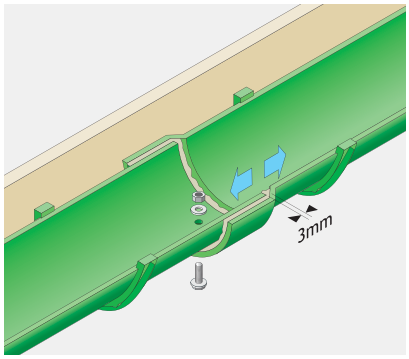
5. Lower the gutter onto the brackets ensuring sufficient clearance for the gutter joint. Clip gutter into bracket.



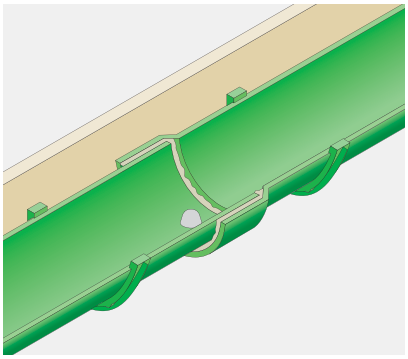
6. Cast gutters overlap at the joint with a spigot and socket. Thoroughly clean and degrease the ends that must be jointed.




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 aluminium M6 x 20mm nut, bolt and washer provided. (Bolt head preferably to underside).



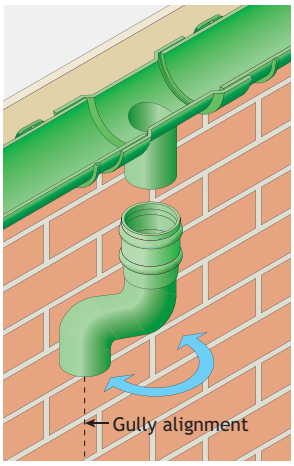
9. Finally, cone-off the exposed bolt stud and nut inside the gutter with a generous application of silicone sealant. Tool off excess silicone around the joint and from external surfaces.

# Installation – Heritage Rainwater Pipe

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

Where sockets are supplied separately these must be lightly driven home into the rainwater pipe using a softwood block or adequate protection at the pipe end to prevent damage. 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.

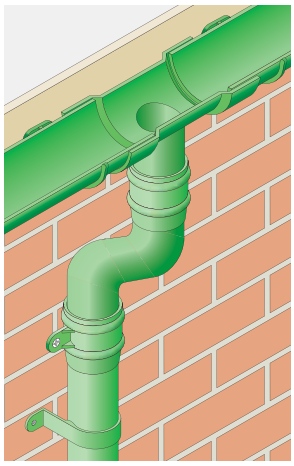
### Pipe Alignment




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.

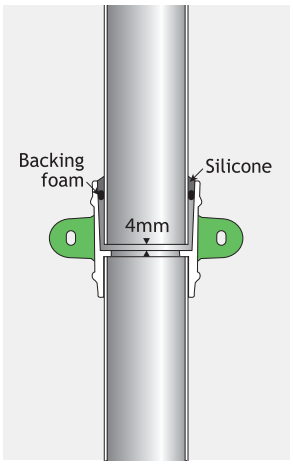
### Outlets and Offsets



Commence installation from the gutter outlet by fitting and adjusting the one part or two part offsets.

Check vertical plumb line positioning and seal spigot and socket joints using DOW791 silicone sealant.

### Pipe Jointing and Fixing



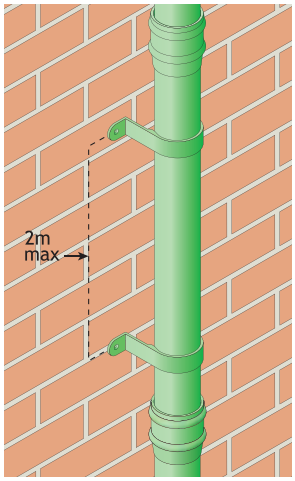

Allow a 4mm expansion gap between pipe end and socket, and insert a 6mm backing foam into the pipe joint. Seal with DOW 791 silicone sealant.

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

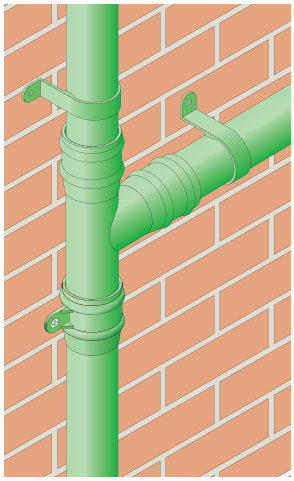
### Pipe Clips




Where uneared pipework is being used it must be secured at maximum 2m centres.

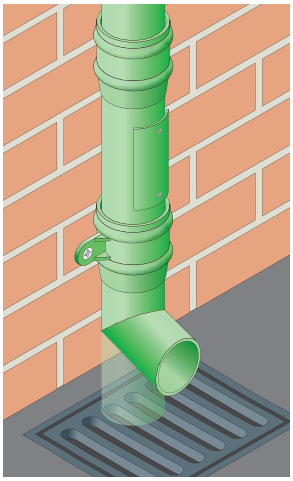
Pipe clips should be chosen according to visual or practical considerations and comprise Standard Base, Small Base and Extended Base options.

### Bends and Branches



Bends and branches are secured into the pipe socket. Where additional fixing is required e.g a change of direction at a bend, use additional pipe clips.

### 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.

### General Installation Sequence

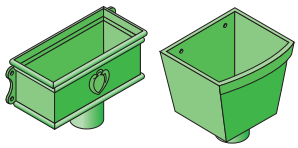
- Complete installation of gutters; alternatively, locate rainwater heads
- Position offsets, bends and branches
- Fit pipes and brackets
- Fit plinth offsets
- Fit access doors and shoes

### 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.



# Installation – Aqualine Gutter and Bracket Preparation

Aqualine gutters are available in five profiles which are supported on secret fix brackets. Joints are made flush using dry seals and slide locks. As a dry jointed system, each gutter profile range is supplied with the required components to achieve a successful installation. Refer to the Rainwater System Installation Guidance on page 83 and review the information below before fitting the Aqualine gutter range.

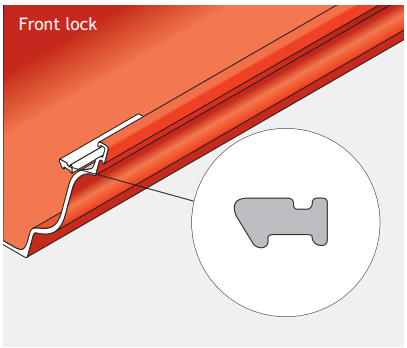
### Jointing Tool

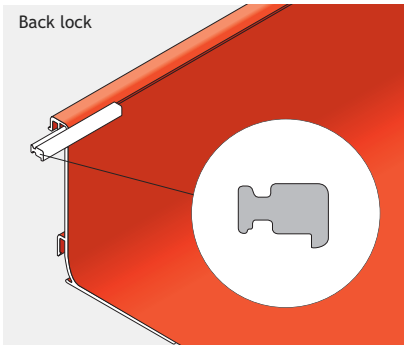
The jointing tool is used to compress the gutter seals whilst positioning slide locks.

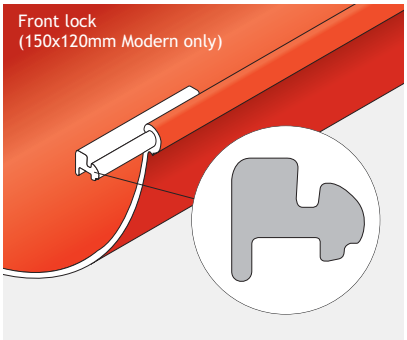


### Slide Locks

Seen here are the 3 types of slide lock (depending on rainwater system) shown positioned as they would be inserted.

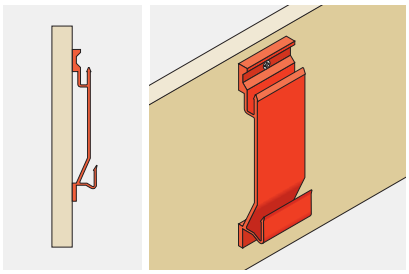


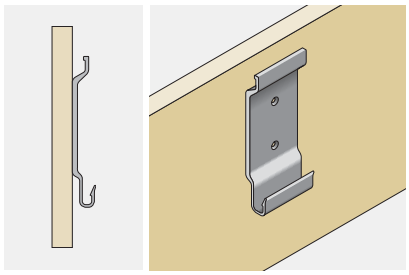

### Aqualine Brackets

There are two types of Aqualine gutter bracket depending on the Aqualine gutter profile to be installed.



Bracket for Half Round and Deep Run gutters

(Supplied to colour match gutter)



Bracket for Modern, Moulded and Box gutters

(Supplied mill finish)

### Aqualine Starter Pack

Starter Packs contain essential installation items.

- P80 joint seal lubricant
- 2 x jointing tool
- 10 x spare slide locks
- 20 x spare No 12 screws
- 8 x spare seal strips
- 20 x shims

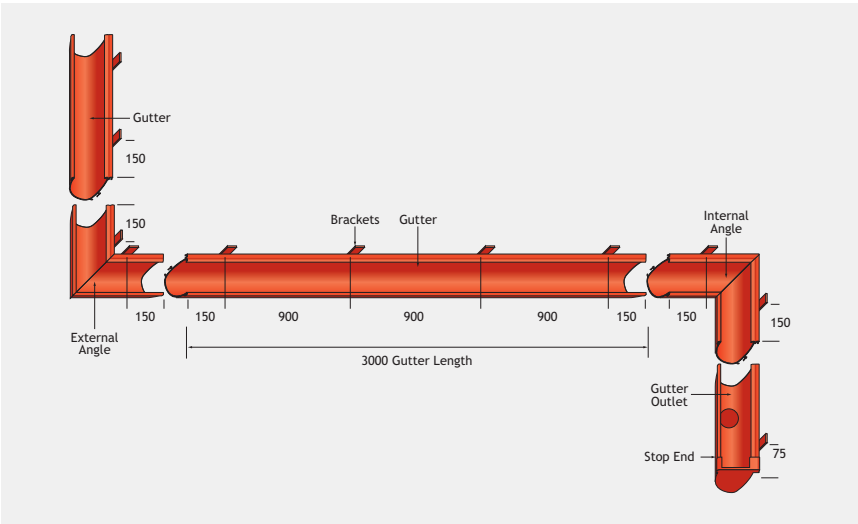
When unpacking locate the Aqualine Starter Pack and keep in a safe place.



Aqualine starter pack

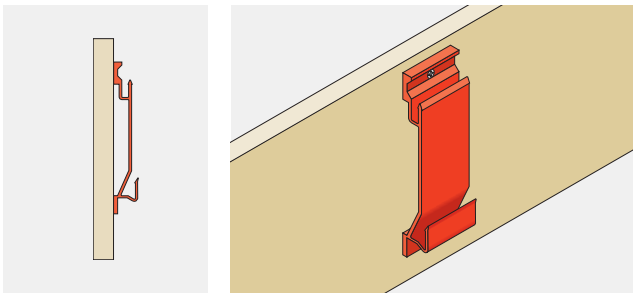
### Setting Out

As a guide there would be 4 brackets per 3m length. Position angles using 2 brackets per angle inset 150mm from each open end. Position outlets using 1 bracket inset 75mm from open end. At gutter ends where there is no outlet, position 1 bracket inset 150mm.

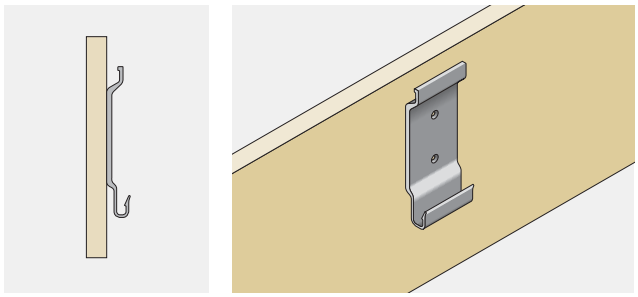


# Installation – Aqualine Gutter and Bracket Preparation

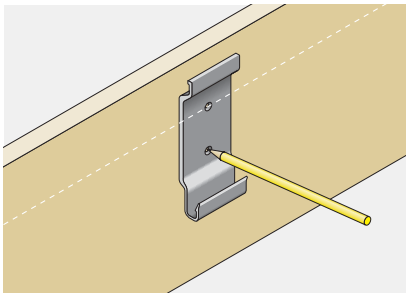
Aqualine gutter systems are supported on concealed bracketry which requires pre-painted fascia boards to be straight and level. The use of shims provided in the Aqualine Starter Packs assists bracket alignment and improves gutter connections whilst minimising stress within the joints. As a guide there are 4 brackets per 3 metre gutter length. Position angles using 2 brackets per angle, inset 150mm from each open end. Position outlets using 1 bracket inset 75mm from open end. At gutter ends where no outlet exists, position 1 bracket inset 150mm.



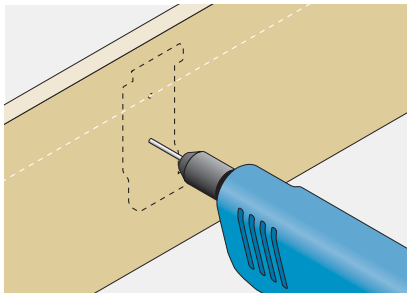
Bracket for Half Round and Deep Run gutters.



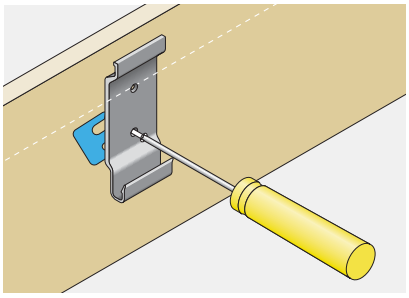
Bracket for Modern, Moulded and Box gutters.



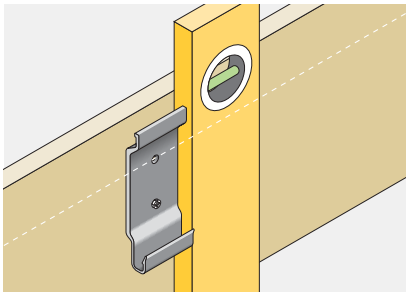
1. Use a string line or laser to set out brackets. (Aqualine must be laid level).



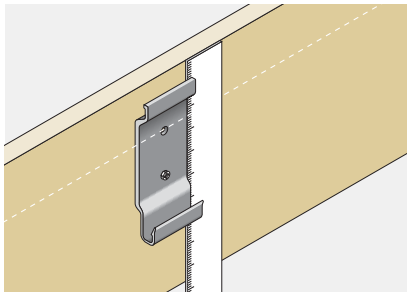
2. Position and pilot 3.5mm diameter hole.



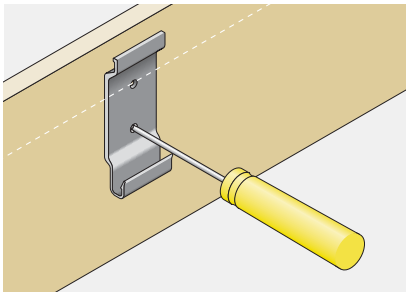
3. Lightly tighten and shim if necessary to align plumb. Fix using No12 x 38mm roundhead screws.



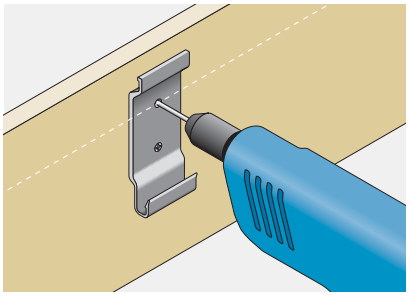
4. Set square.



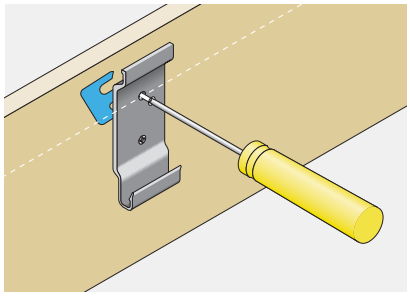
5. Check positioning and adjust if necessary.



6. Tighten.



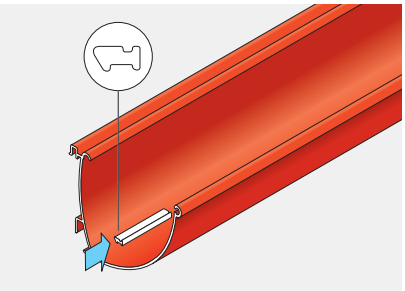
7. Pilot 3.5mm diameter hole.



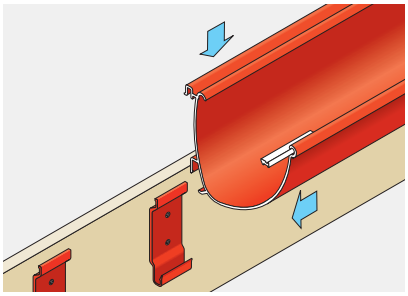
8. Check for plumb, shim if necessary and tighten.

# Installation – Aqualine Half Round, Deep Run and Modern Gutters

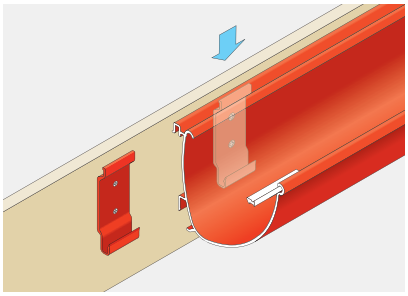
Aqualine Half Round, Deep Run and Modern gutters use a unique dry jointing system to give a completely clean external appearance. Gutters drop and lock onto concealed brackets where internal joints are aligned and locked using slide bars. Assembly of Half Round, Deep Run and Modern gutters requires the use of single front lock bars. The entire gutter system is completely secure whilst at the same time allowing free linear thermal movement.



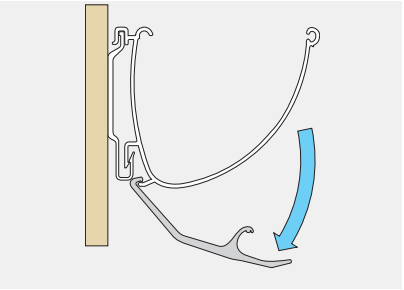
1. Pre-insert slide lock bars (1 per joint). Check for right way up.



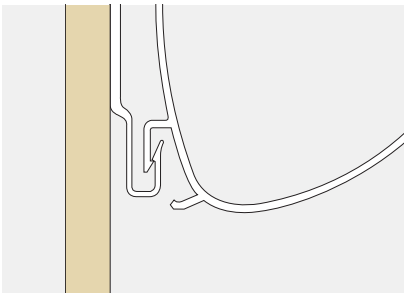
2. Position gutters loosely, do not lock down.



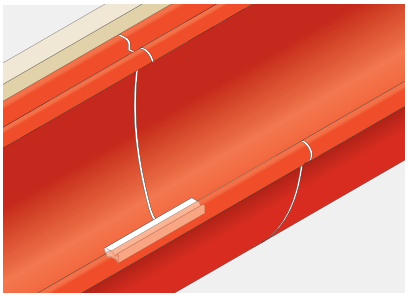
3. Locate gutters onto top rail of brackets and allow 4mm gap.



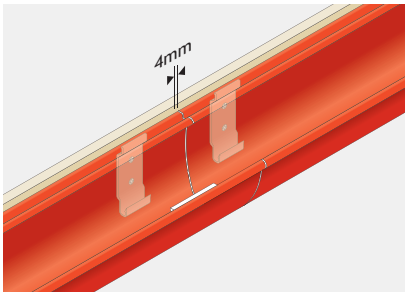
4. Lock down gutter with Aqualine jointing tool.



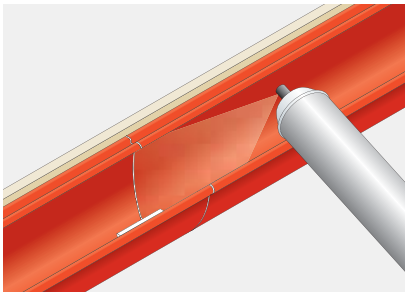
5. Check for positive location.



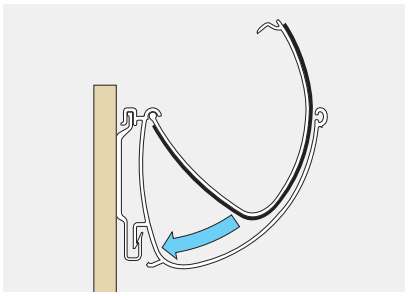
6. Slide lock bar within 50mm of joint but NOT across gutter joint.



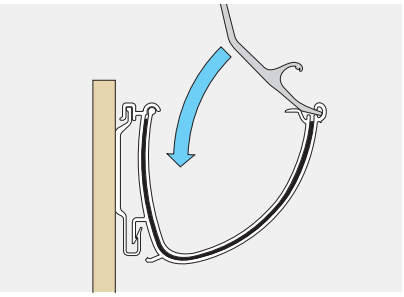

7. Check and reset 4mm expansion gap as necessary.



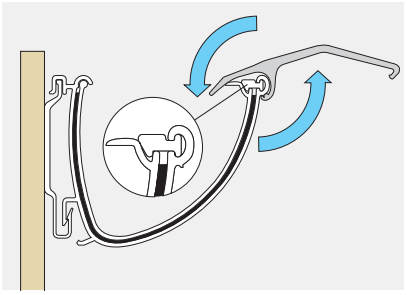
8. Clean jointing surfaces and spray apply Alumasc lubricant.



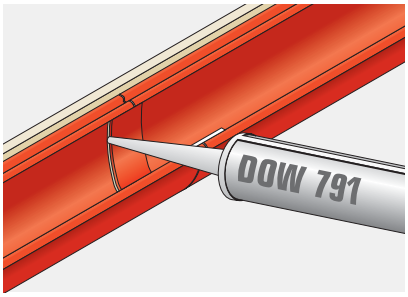
9. Hook joint union into gutter receiver channel and pivot down.



10. Compress joint union and start lock bar across joint.



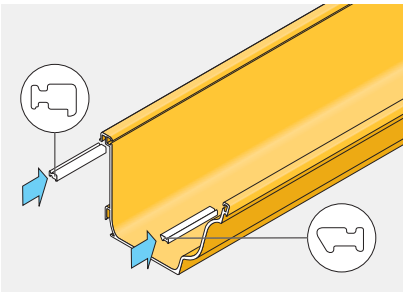
11. Reverse tool apply **equal** pressure around **pivot** point to complete lock bar positioning fully across joint. Take care not to dislodge gutter from fascia bracket.



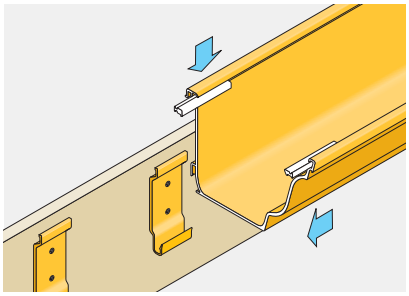

12. Dry gutter and apply DOW 791 silicone sealant to weather edges of union.

# Installation – Aqualine Moulded and Box Gutters

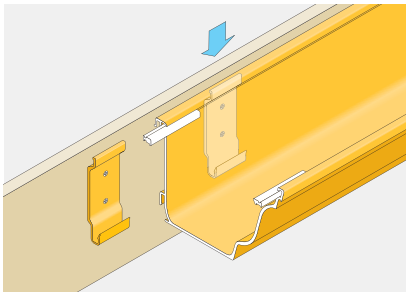
Aqualine Moulded and Box gutters use a unique dry jointing system to give a completely clean external appearance. Gutters drop and lock onto concealed brackets where internal joints are aligned and locked using slide bars. Assembly of Moulded and Box gutters requires the use of lock bars located at the front and rear. The entire gutter system is completely secure whilst at the same time allowing free linear thermal movement.



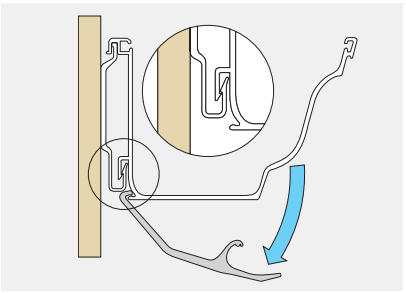
1. Pre-insert slide lock bars front and rear. Check for right way up.



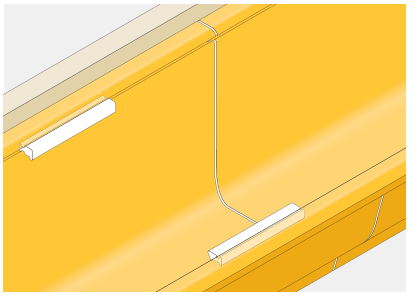
2. Position gutters loosely, do not lock down.



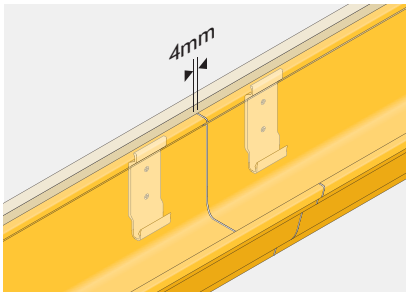
3. Locate gutters onto top rail of brackets and allow 4mm gap.



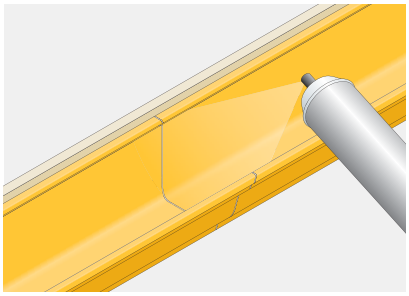
4. Lock down gutter with Aqualine jointing tool and check for full location.



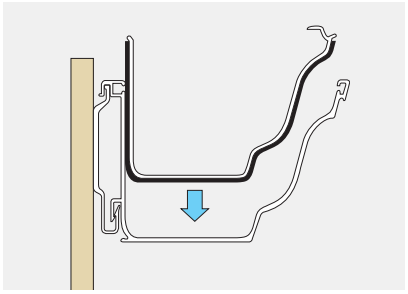
5. Slide lock bars up to but NOT across gutter joint.



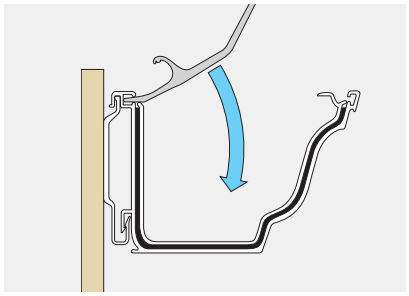

6. Check and reset 4mm expansion gap as necessary.



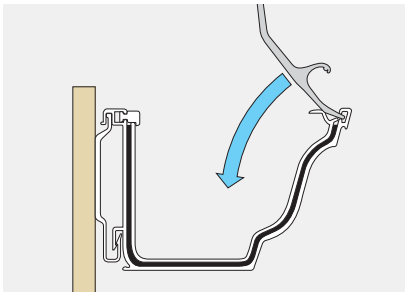
7. Clean jointing surfaces and spray apply Alumasc lubricant.



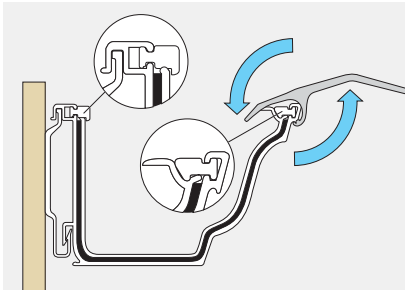
8. Push in joint union from above.



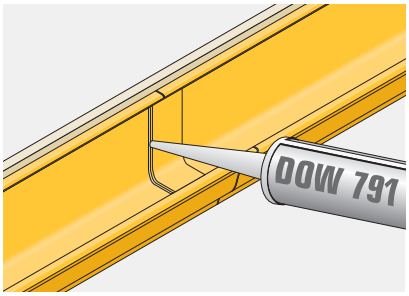
9. Compress joint union (back) and slide rear lock bar fully across joint.



10. Compress joint union (front) and start front lock bar across joint.



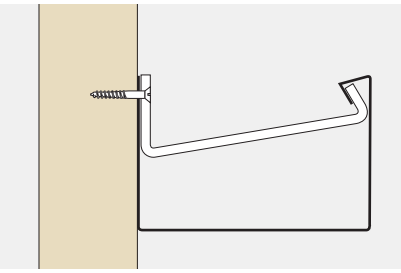
11. Reverse tool apply **equal** pressure around **pivot** point to complete lock bar positioning fully across joint. Take care not to dislodge gutter from fascia bracket.




12. Dry gutter and apply DOW 791 silicone sealant to weather edges of union.

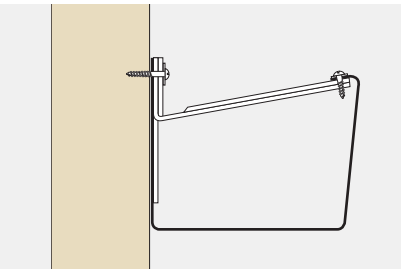
# Installation – GX Gutter Preparation

The GX range consists of three gutter profiles designed for managing high volumes of rainwater. GX gutters use traditional wet jointing on site, concealed internal laps and profile specific bracketry for support. High capacity GX systems require the strength and support of internal top straps or “back fixing” directly to fascia boards. Installers should inspect fascia boards to ensure they are capable of carrying the full gutter load.



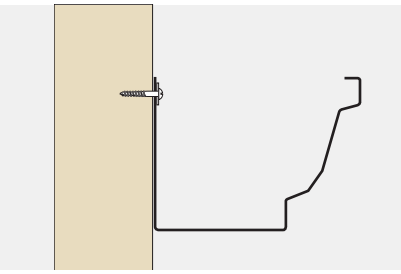
**GX Joggle (GXJ)**

Screw fixes to the fascia incorporating a heavy gauge top strap.



**GX Smooth (GXS)**

Fascia fixed using a one piece combined top and back strap.



**GX Moulded (GXM)**

Direct back fix system with option for top strap where large sizes and heavy loads are anticipated.

**Note**

If snow loads or high winds are anticipated insert two additional screws per length at the centre of each slot.

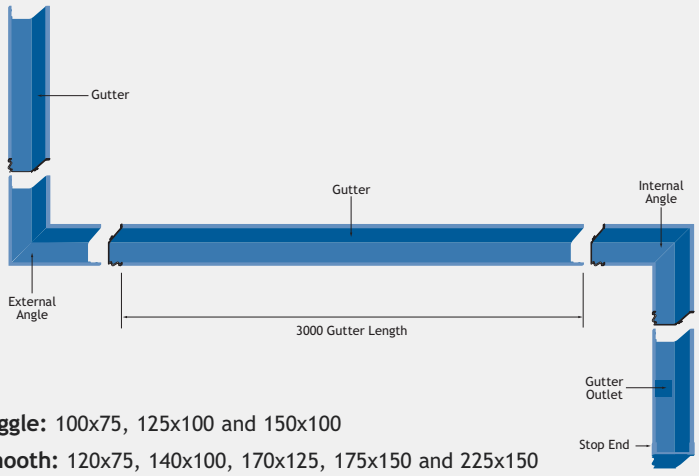
Alumasc recommend the use aluminium washers to allow for thermal movement.

Sealing washers should be used if there is a risk of leakage during high flow conditions.

**Setting Out**

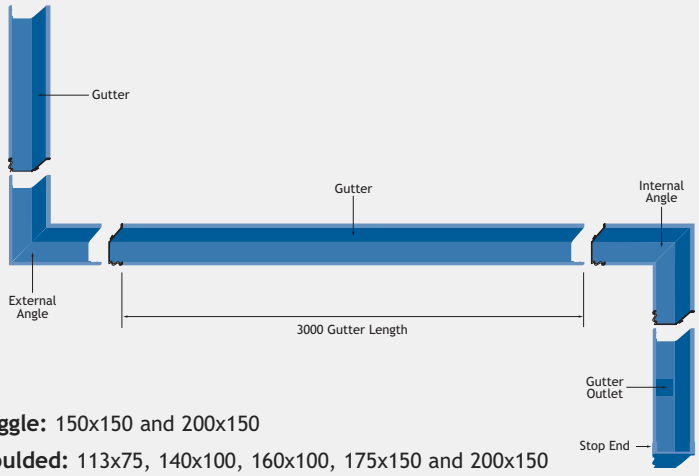
Follow the guidelines below for setting out:

- GX Joggle - GXJ1, GXJ2, GXJ3 - Fix at 1000mm centres, GXJ4 and GXJ5 - Fix at 600mm centres using pre-drilled holes provided
- GX Smooth - Fix at 1000mm centres using pre-drilled holes provided
- GX Moulded - Fix at 600mm centres using pre-drilled holes provided
- 2no fixings per angle
- 1no fixing per running outlet




**GX Joggle:** 100x75, 125x100 and 150x100

**GX Smooth:** 120x75, 140x100, 170x125, 175x150 and 225x150




**GX Joggle:** 150x150 and 200x150

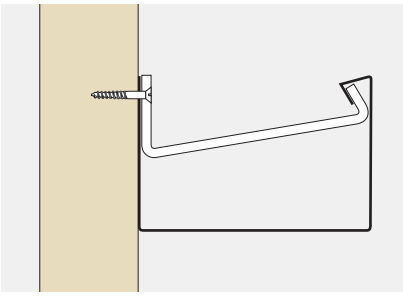
**GX Moulded:** 113x75, 140x100, 160x100, 175x150 and 200x150

**Sealant**

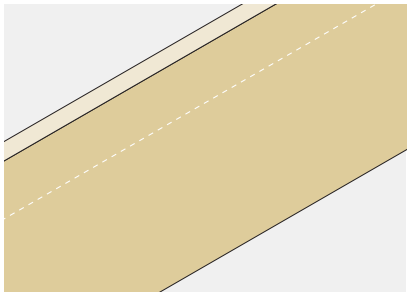
For durable all weather seals and the best results, Alumasc recommends the use of DOW 791 silicone sealant.

# Installation – GX Joggle Gutter

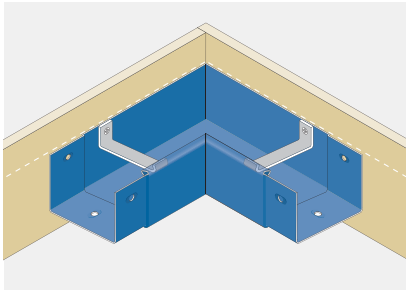
GX Joggle gutters are a press formed eaves drainage system with sharply defined box profile. Gutters are supported by internal top straps and directly fixed to the fascia board. The Joggle method of gutter jointing uses an integral internal union or formed spigot which is wet sealed using silicone sealant.



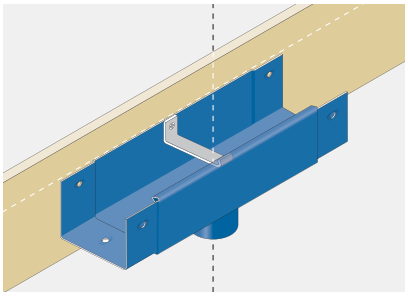
GX Joggle fixes to fascia using a heavy gauge top strap.



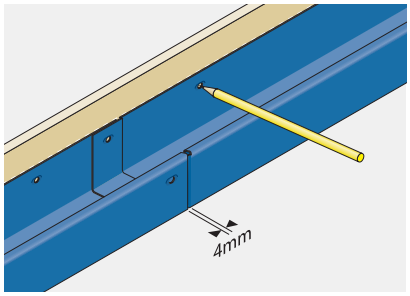
1. Use a string line or laser to set out gutter lines. (GX Joggle must be laid level).



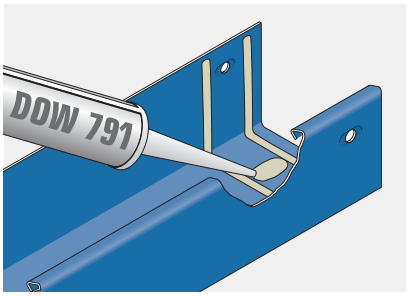
2. Position angles, mark fixing positions and pilot 3.5mm diameter holes, fit top strap and loosely fix using No12 x 38mm roundhead screws.



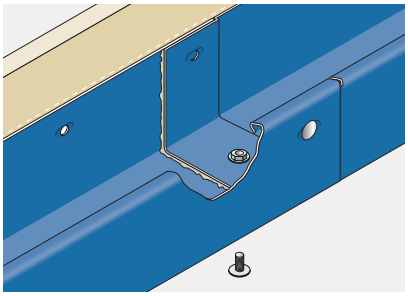
3. Plumb line outlet position with gullies at ground level, pilot 3.5mm diameter holes, fit top strap and loosely fix using No12 x 38mm roundhead screws.



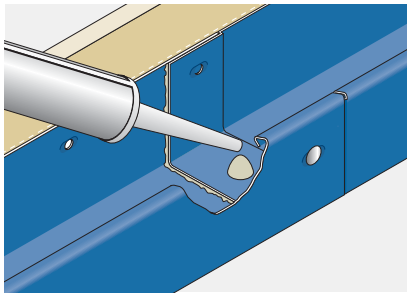

4. Position gutter lengths allowing for 4mm expansion joints. Mark fixing positions and pilot 3.5mm diameter holes.



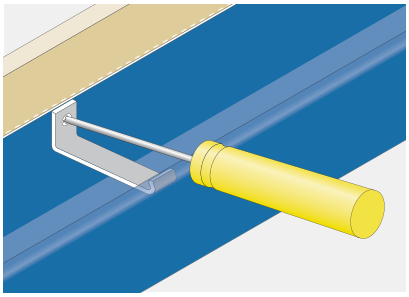

5. Thoroughly degrease all jointing surfaces and apply two 6mm beads of DOW 791 silicone sealant either side of and around the slotted fixing holes.



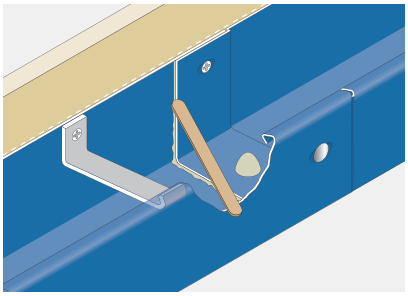
6. Secure joints with aluminium M6 x 12mm nuts, bolts and washers provided taking care not to over tighten or displace sealant from within the joint.



7. Cone-off the exposed bolts, studs and nuts inside the gutter with a generous application of silicone sealant.



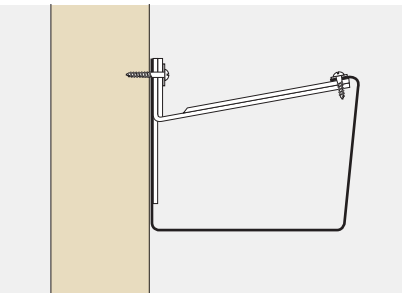
8. Align gutter lengths correctly for final positioning. Engage top straps and fix back securely to fascia.



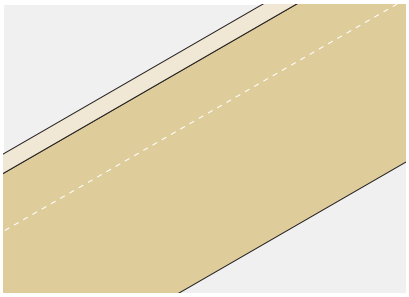
9. Tool off excess silicone around the union joint and from visible external surfaces.

# Installation – GX Smooth Gutter

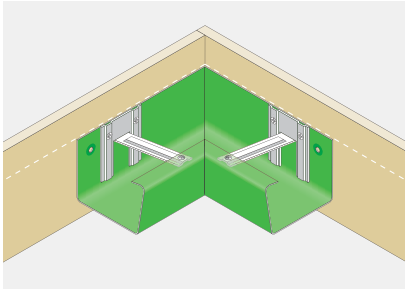
GX Smooth is a press formed rectangular profile with inclined front face. Gutters are supported using a one piece top strap combined with a back strap to accommodate increased weight load. Gutters and fittings are butt jointed with an overlapping union which is wet sealed using silicone sealant and back fixed to the fascia.



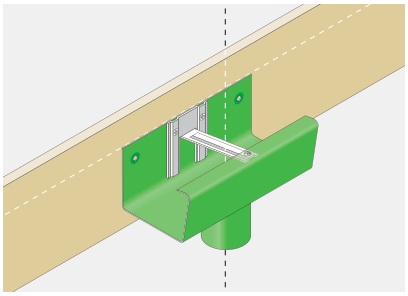
GX Smooth fixes using a one piece combined top and back strap.



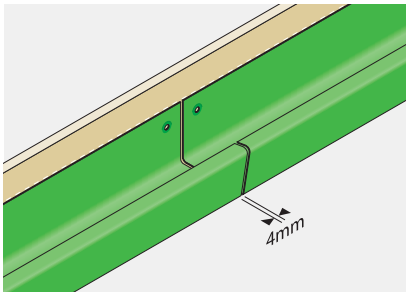
1. Use a string line or laser to set out gutter lines. (GX Smooth must be laid level).



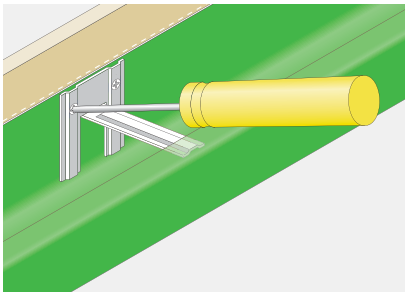
2. Position angles, mark fixing positions and pilot 3.5mm diameter holes. Loosely fit using No12 x 38mm round head wood screws and washers provided.



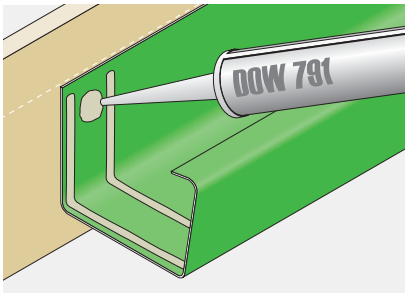
3. Plumb line outlet positions with gullies at ground level and mark fixing positions. Pilot 3.5mm diameter holes and loosely fit using No12 x 38mm round head wood screws and washers.



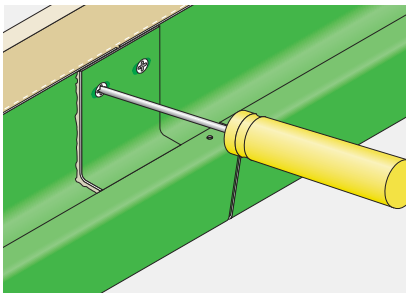

4. Line and level gutter lengths allowing 4mm expansion gap at joints.



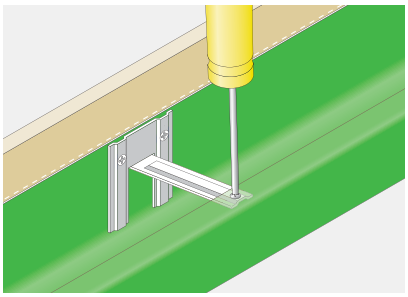
5. Fix gutters to fascia using combined top/back straps and No12 x 38mm round head wood screws and washers provided.



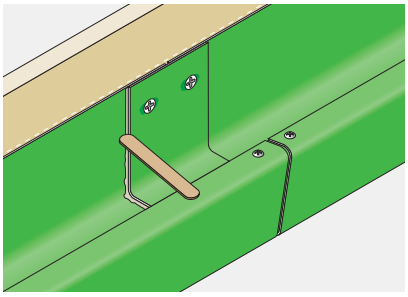

6. Thoroughly degrease all jointing surfaces and apply two 6mm beads of DOW 791 silicone sealant across back/sole/front surfaces.



7. Slide in union joints and back fix to fascia board using No12 x 38mm round head wood screws and washers. Slide in next gutter and repeat process.



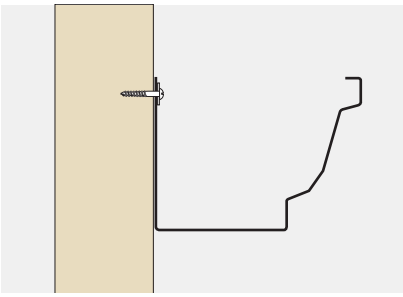
8. Screw the front end of the top straps to the preformed holes in the top lip of the gutter. Use the pan head fixing screw provided.



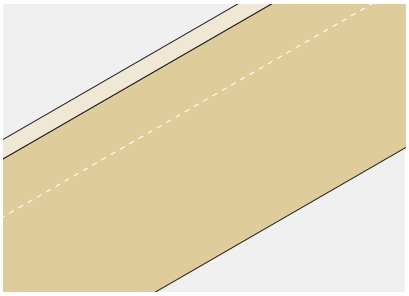
9. Tool off excess silicone around the union joint and from visible external surfaces.

# Installation – GX Moulded Gutter

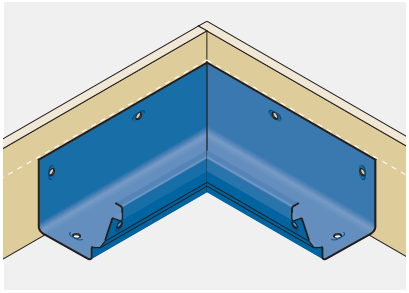
GX Moulded gutters are press formed to provide a seamless moulded profile. GX Moulded gutter systems are generally back fixed directly to the building fascia although the largest profiles also employ top straps. Gutter lengths and fittings are butt jointed with bolted overlapping unions which are wet sealed using silicone sealant.



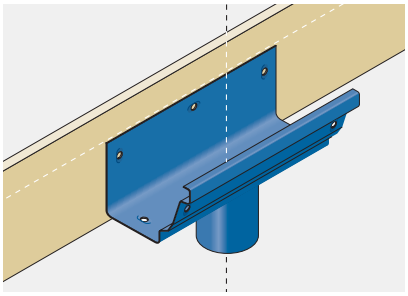
GX Moulded direct fixes to fascia. Top strap options are available where large sizes and heavy loads are anticipated.



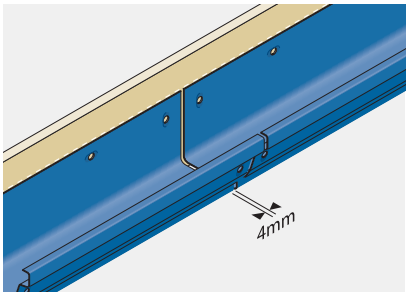
1. Use a string line or laser to set out gutter lines. (GX Moulded must be laid level).



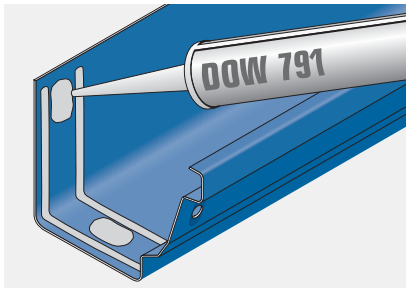
2. Position angles, mark fixing positions and pilot 3.5mm diameter holes and loosely fit using No12 x 38mm round head wood screws and washers provided.



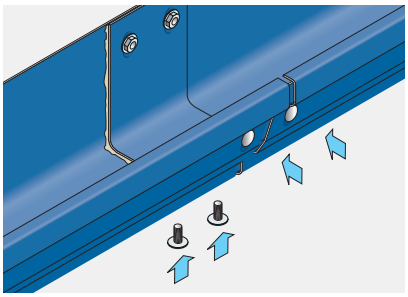
3. Plumb line outlet positions with gullies at ground level and mark fixing positions. Pilot 3.5mm diameter holes and loosely fit using No12 x 38mm round head wood screws and washers provided.



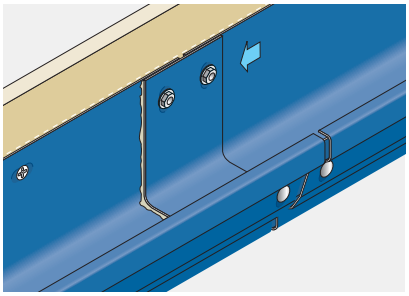

4. Line and level gutter lengths allowing for 4mm expansion gaps at joints.



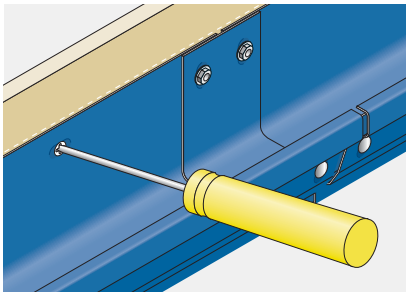

5. Thoroughly degrease all jointing surfaces and apply two 6mm beads of DOW 791 silicone sealant either side of and around the slotted fixing holes to inside back/sole/front surfaces.



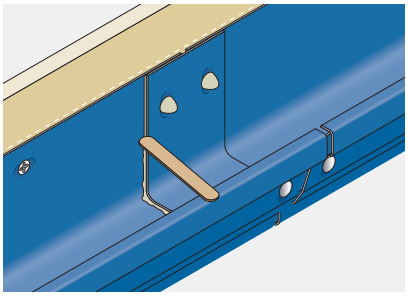
6. Slide in union joint and insert gutter bolts (heads outside). Secure joint with nuts and washers taking care not over tighten or displace sealant from within the joint.



7. Slide in next gutter length and repeat process.



8. Tighten all fascia fixing screws and fit top straps if required otherwise screw back securely to the fascia using No12 x 38mm round head wood screws and washers provided.

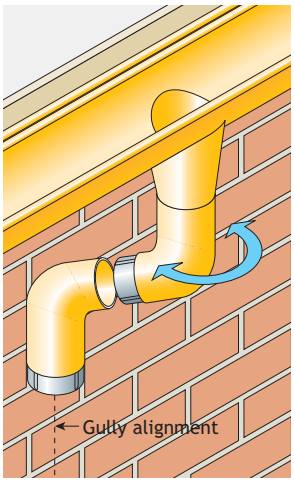


9. Tool off excess silicone and cone-off the exposed washers and nuts inside the gutter with a generous application of silicone sealant.

# Installation – Flushjoint Rainwater Pipe

Flushjoint rainwater pipes consist of circular, square and rectangular pipes with factory fitted internal spigot joints between pipes and fittings. Pipes are bracket fixed and generally assembled from the eaves downward. Loose-fit pipe clips are used to secure Flushjoint pipes and can be positioned to allow pipe joints to be completely concealed.

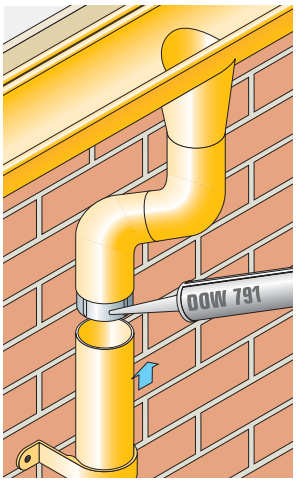
### Pipe Alignment




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

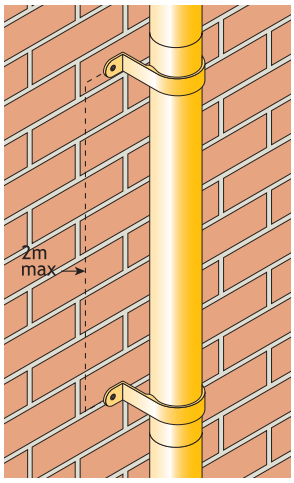
Round pipe systems are more flexible to install as offsets can be adjusted and "swung" into alignment with the gully position.

### Outlets and Offsets




Commence installation from the gutter outlet by fitting and adjusting the two part offsets. Check vertical plumb line and assemble internal spigot joints using DOW 791 silicone sealant then fit first pipe clip.

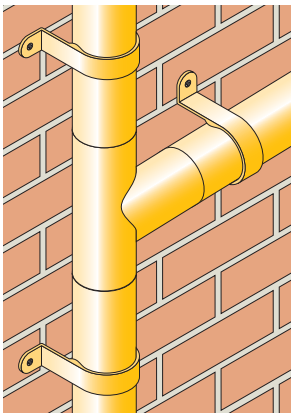
### Pipe Clips




Pipe clips support and hold the rainwater pipe to the structure. All three types of pipe clip, Standard, Small Base and Extended Base can be used to conceal the pipe joints.

Fix to wall using No12 x 50mm screws provided. Allow two pipe clips per pipe length (maximum 2m centres) and fix with screws, placing a washer beneath the screw head.

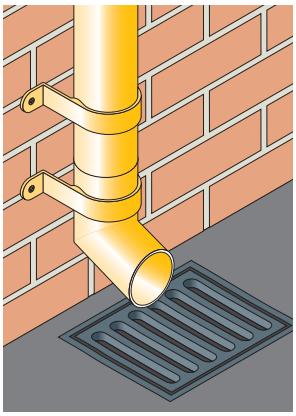
### Pipes, Bends and Branches



Continue to assemble the stack taking care not to scratch the pipe coating whilst sliding pipe clips into position.

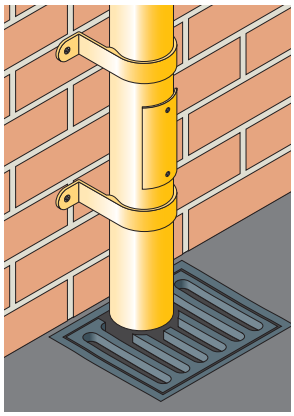
Bends and branches are normally secured between pipe ends. Where additional fixing is required e.g a change of direction at a bend, use additional pipe clips.

### Shoes



At ground level if the rainwater pipe does not connect directly to the gully, pipes can terminate with a shoe fitting for free discharge over the gully.

### Access Pipes



Where rainwater pipes directly connect to the gully it is recommended that an access pipe is fitted no more than 750mm above ground level.

### Tools Required for Flushjoint and Guardian

- 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

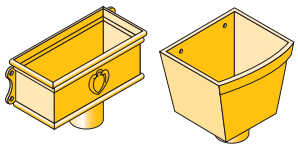
- Complete installation of gutters; alternatively, locate rainwater heads
- Locate
- Position offsets, bends and branches
- Fit pipes and brackets
- Fit plinth offsets
- Fit access doors and shoes

### Sealant

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

### Rainwater Heads

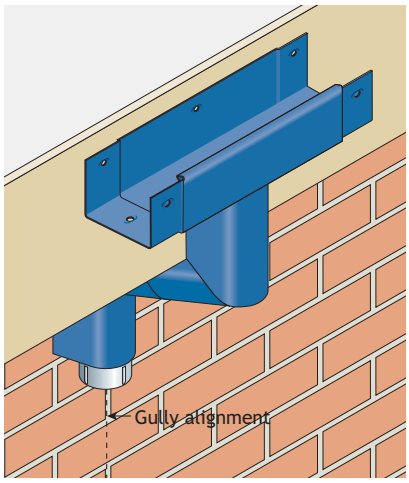
Fix to masonry through external lugs or preformed holes in back.



# Installation – Guardian Rainwater Pipe

Guardian is a range of flush fitting architectural feature pipes in round, square and rectangular pipe section with factory fitted internal spigots and fully concealed bracketry. Pipe systems are assembled from ground upwards and are designed to be ungrippable, providing a high level of security.

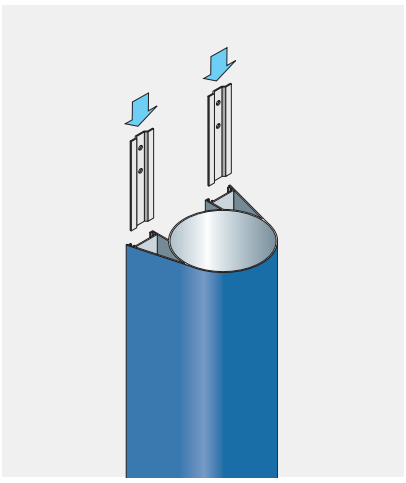
### Pipe Alignment




Guardian pipes are assembled from ground upwards.

Use a plumb line to ensure correct alignment between gully at ground level and the gutter outlet.

### Pipe Fixing Plates

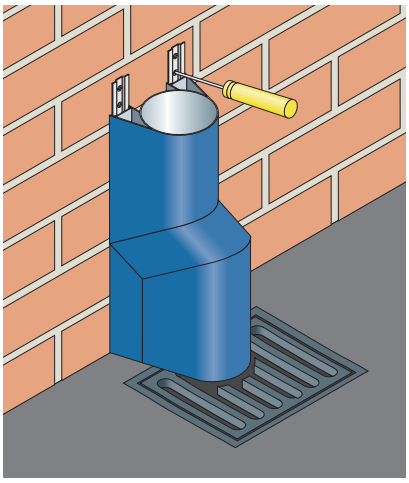


When joining pipe lengths tap two fixing plates per pipe connection into the pipe receiver rails using a block of wood to prevent damage.

The fixing plates have “stops” to limit insertion.

Fix to the wall using No12 x 38mm pan head screws.

### Gully Connection

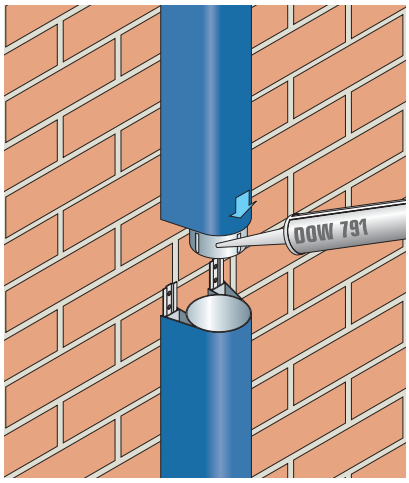


Commence installation by fitting fixing plates to the drain connector component and then fixing to the wall.

This component may be either a plain pipe section or include a rodding access.

Where the gully position is away from the wall, a shroud is available to order to eliminate gap. (Full site dimensions required).

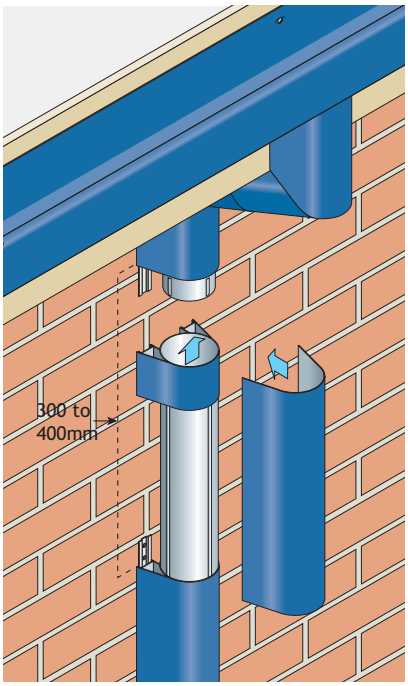
### Pipe Assembly




Pipe lengths are connected by sliding new pipe sections down over the fixing plates of the pipe below.

Seal spigot joints by applying DOW 791 silicone sealant to spigot and receiving pipe end.

### Make Up Piece, Offsets and Gutter Connections



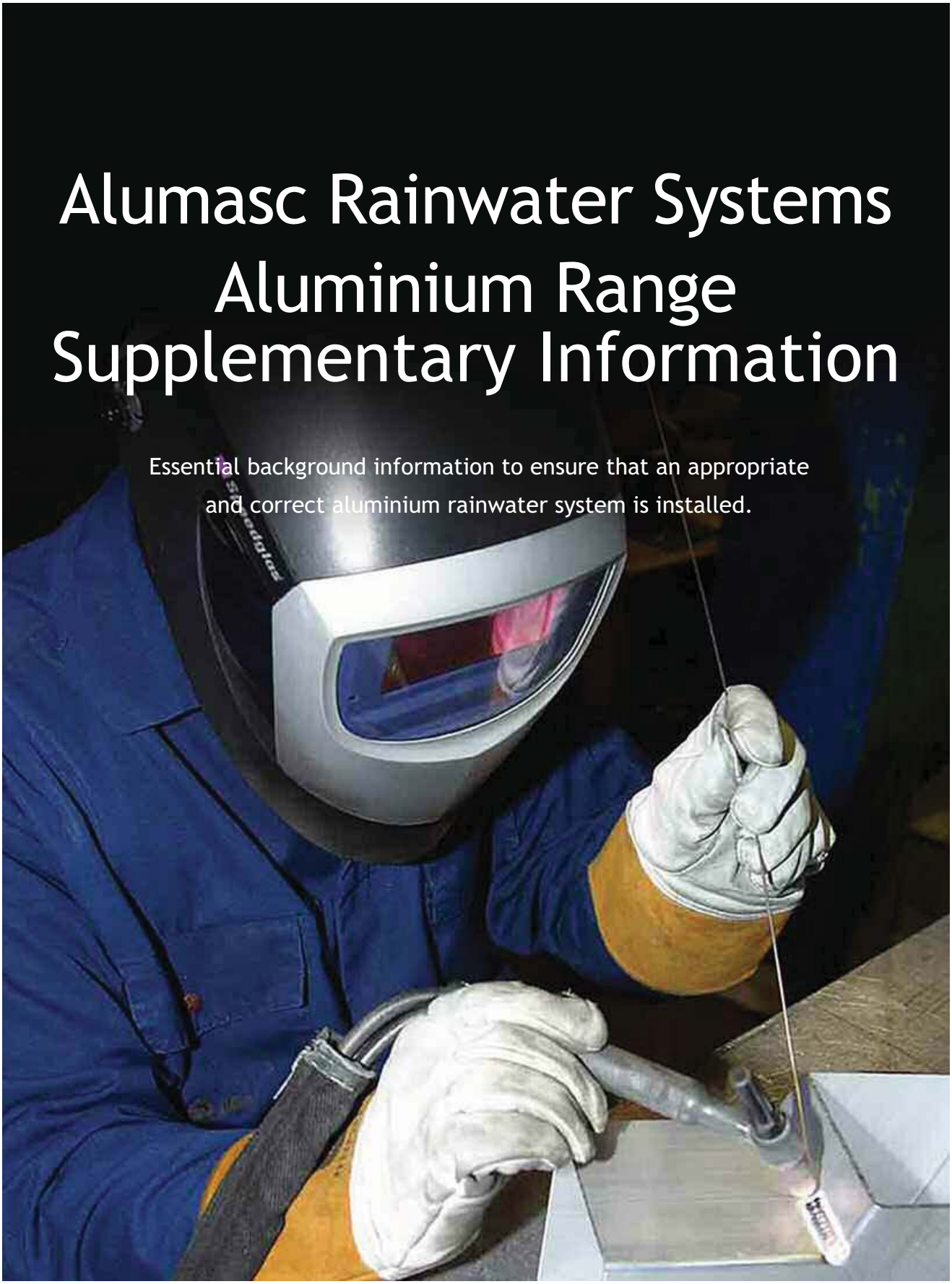

Build up and trim stack to within 300/400mm of underside of gutter and secure with fixing plates.

Insert telescopic section into stack below offset position, (if there is no offset use a straight make-up piece of equal length).

Fit the offset into the make up piece then lift up offset and make up piece to test the fit to the gutter spigot.

Cut a cover piece to fit gap created by the make up piece.

Apply DOW 791 silicone sealant to gutter spigot and adhere cover piece into position.



# Alumasc Rainwater Systems Aluminium Range Supplementary Information

Essential background information to ensure that an appropriate and correct aluminium rainwater system is installed.

# Non-Standard Items

Alumasc can tailor designs to meet individual project requirements, whether it is exact matching of rainwater products on restoration projects or stylish design solutions for new, contemporary buildings.



## Alternative Gutter Profiles

Alumasc design and supply engineered rainwater systems and have the ability to develop patterns that are tailored to individual buildings' specific needs.

Whether the aim is to match an existing profile or simply to differentiate a building's appearance, Alumasc can offer bespoke gutter profiles to suit.

## Radiused Gutter Sections

Where gutters are required to follow a particular roof radius, patterns can be engineered from detailed dimensions or existing gutter installations to yield a fully cast gutter that can be installed to suit the roof parameters. These are generally supplied in 1m lengths.

As an alternative to fully cast sections, Heritage and Aqualine profiles can be fabricated by cutting, mitring and welding to create a segmented radii gutter. GX profiles can be fabricated by mitring and seam-welding sections to create a segmented radii gutter. This often provides a cost effective solution for such architectural detailing.



## Fabricated Gutter Sections

Standard gutter profiles can be fabricated into non-standard plan angles that can suit a host of different building geometries. Transition pieces for jointing mismatch gutter shapes, back outlets for drainage through parapet walls can all be expertly manufactured by Alumasc.

## Rainwater Heads (Hoppers)

Ornate rainwater heads can be supplied to match existing design or one-off, personalised designs that will add enduring character and value to the building.

Rainwater heads can be manufactured from new patterns by the casting process. Alternatively, due to the flexibility afforded by the use of pressed aluminium sheet, fabricated items can be supplied to suit a whole range of requirements and applications.

Alumasc rainwater heads can also be enhanced by adding ornate enrichments or detailing, such as place names or initials onto the rainwater heads.



## Bespoke Bracketry

Alumasc can design and manufacture a variety of bracketry solutions for gutters and pipes to create an integrated system. Such detailing can often be used to support fascia and soffit configurations.

Ornate holderbats and earbelts can be detailed to provide a unique, distinguished appearance to a rainwater stack.

Where standard fitting dimensions do not suit the project's requirements, Alumasc can fabricate pipe systems to accommodate building design.

Ornate pipes can be supplied to match existing designs or one-off, personalised designs. Special enrichments can be added to create enduring character and value to the building.

# Accessories

## Touch Up Paint

| | RAL Code | Description | Size | Product Code |
|---|---|---|---|---|
| | RAL 1011m | Brown Beige | 125ml | TUP/RAL1011M/125 |
| | RAL 1013m | Pearl White | 125ml | TUP/RAL1013M/125 |
| | RAL 1021m | Cadmium Yellow | 125ml | TUP/RAL1021M/125 |
| | RAL 2002m | Vermilion | 125ml | TUP/RAL2002M/125 |
| | RAL 3003m | Ruby Red | 125ml | TUP/RAL3003M/125 |
| | RAL 3005m | Wine Red | 125ml | TUP/RAL3005M/125 |
| | RAL 5003m | Sapphire Blue | 125ml | TUP/RAL5003M/125 |
| | RAL 5010m | Flower Blue | 125ml | TUP/RAL5010M/125 |
| | RAL 6005m | Moss Green | 125ml | TUP/RAL6005M/125 |
| | RAL 6018m | Yellow Green | 125ml | TUP/RAL6018M/125 |
| | RAL 7005m | Mouse Grey | 125ml | TUP/RAL7005M/125 |
| | RAL 7006m | Beige Grey | 125ml | TUP/RAL7006M/125 |
| | RAL 7012m | Basalt Grey | 125ml | TUP/RAL7012M/125 |
| | RAL 7015m | Slate Grey | 125ml | TUP/RAL7015M/125 |
| | RAL 7016m | Anthracite Grey | 125ml | TUP/RAL7016M/125 |
| | RAL 7024m | Graphite Grey | 125ml | TUP/RAL7024M/125 |
| | RAL 7036m | Platinum Grey | 125ml | TUP/RAL7036M/125 |
| | RAL 7037m | Dusty Grey | 125ml | TUP/RAL7037M/125 |
| | RAL 7038m | Agate Grey | 125ml | TUP/RAL7038M/125 |
| | RAL 8017m | Chocolate Brown | 125ml | TUP/RAL8017M/125 |
| | RAL 8019m | Grey Brown | 125ml | TUP/RAL8019M/125 |
| | RAL 9006m | Metallic Silver | 125ml | TUP/RAL9006M/125 |
| * | RAL 9006g | Metallic Silver | 125ml | TUP/RAL9006G/125 |
| | RAL 9016m | White | 125ml | TUP/RAL9016M/125 |
| | RAL 9017m | Black | 125ml | TUP/RAL9017M/125 |
| | | Black (Spray can) | 400ml | TUP/BLACK/TXT |

Note: The colours reproduced on this page are for general guidance only.

* 80% gloss

## Lightning Link



Flexible Type



Rigid Type

| Type | Product Code |
|---|---|
| Flexible Flat Braid Assembly | LL635007 |
| Rigid Type Assembly | LL632914 |
| Oxide Inhibitor Compound (50 joints per tube) | LL991972 |

Note: Provides an earth continuity bond intended for connection across joints on-site thereby providing electrical continuity throughout the entire metal gutter system.

Extra pre-drilled fixing holes in gutter and fittings can be provided.

## Backing Foam



| Type | Product Code |
|---|---|
| 10m Roll x 6mm dia Backing Foam | BF991408 |

## Solvent Cleaner



| Type | Product Code |
|---|---|
| Fast Drying Solvent Cleaner | SC991281 |

## Silicone Sealant



| Type | Colour | Size | Product Code |
|---|---|---|---|
| Dow Corning 791 | White | 310ml Cartridge | SS991558 |
| Dow Corning 791 | Grey | 310ml Cartridge | SS991559 |
| Dow Corning 791 | Bronze | 310ml Cartridge | SS991560 |
| Dow Corning 791 | Black | 310ml Cartridge | SS991561 |
| Dow Corning 791 | Limestone | 310ml Cartridge | SS991562 |

## Gutter Bolts (Nut, Bolt & Washer)



| Type | Size | Notes | Product Code |
|---|---|---|---|
| Aluminium Nut/Bolt/Washer | M6 x 12mm | For use with the GX Gutter Range | NBW 630308 |
| Aluminium Nut/Bolt/Washer | M6 x 20mm | For use with the Heritage Gutter Range | NBW 630307 |

## Woodscrew



| Type | Size | Notes | Product Code |
|---|---|---|---|
| Countersunk | No.12 x 1.5” | To fix rafter arms to GX Brackets | ZNBW969041 |
| Roundhead | No.12 x 1.5” With Washer | To fix Heritage Fascia Brackets or for ‘direct fix’ Gutter range | NBW 630362 |
| Roundhead | No.12 x 2” With Washer | To fix pipe sockets with ears or pipe clips | NBW 630361 |

# Rainwater System Design

Alumasc Technical Services is a fully experienced team of Rainwater specialists who use the latest CAD technology and calculation tools to provide an unrivalled support service to Architects, Designers and Contractors.

## The Alumasc Rainwater Drainage Design Service

Alumasc Technical Services use dedicated design software in conjunction with the requirements of *BS EN 12056:2000: Gravity drainage systems inside buildings - Part 3* to calculate the most appropriate Alumasc rainwater system to suit project requirements.

The gutter flow software automatically checks the capacity of downpipes used and suggests the minimum size to which downpipes can be sized. Contact Alumasc for further information.

## Calculation Criteria

Calculation of the most efficient drainage solution takes into consideration the following criteria:

- Catchment area
- Local rainfall intensity
- Building life and safety factor
- Size and flow rate of gutters
- Frequency and size of outlets and downpipes

## Sizing of Gutters and Downpipes

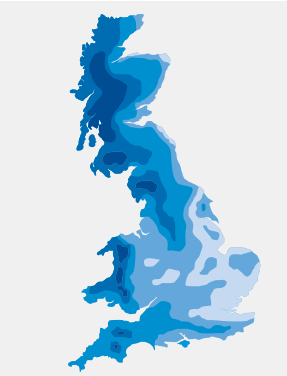
The level of rainfall a given roof drainage system should cope with is based on the position of the gutter, the potential use of the building and its projected lifespan. All true eaves gutters (external) are designed using a 1 year storm event. This is generally accepted because overflow from an external eaves gutter will fall clear of the building, which is not normally a problem. Any gutter which is classed internal, even if it is at the eaves, should be designed for an intensity based on the building life and a suitable factor of safety.

This factor will vary from 1.5 for conventional buildings to 4.5 for very important structures. For most buildings a 60 year life and safety factor of 1.5 would be the most suitable (90 year protection life).

All the parameters of flow calculations cannot be captured using a single formula. The guide below provides a basic method for calculating flow requirements. For accurate project specific specification advice on rainwater flow calculations contact Alumasc Technical Services.

### Step 1

**Geographical Location and Rainfall Intensity Maps**

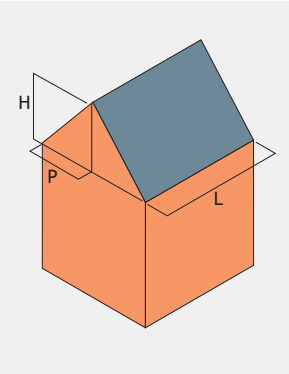


BS EN 12056-3: 2000 contains maps showing rainfall intensity in litres/second per $m^2$ for 1, 5, 50 and 500 year storms of 2 minute duration.

(All external gutters designed for 1 year event).

### Step 2

**Calculating Catchment Area**




CA = (P+H/2) x L

CA = Catchment area in square metres

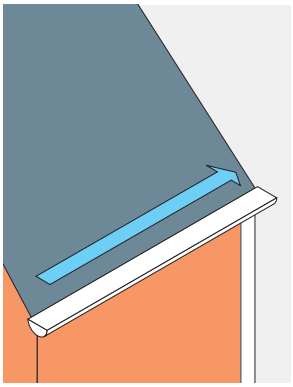
P = Horizontal distance between eaves and ridge

H = Height of roof

L = Length of eaves

### Step 3

**Frequency and Positioning of Outlets/Downpipes**



Calculate the number of outlets per run.

### Step 4

**Calculate Flow Requirements**

**Overall Rainfall**

Catchment area (CA) x Rainfall intensity (RI) = Overall Rainfall (OR)

**Flow Rate Per Outlet**

Overall Rainfall (OR) ÷ Number of Outlets = Flow Rate Per Outlet

Choose Gutter/Outlets according to published Flow Rate capacities.

**Note:**

Depending on building type, a safety factor should be allowed for the sizing of internal gutters. Contact Alumasc Technical Services for further information.

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Available on the iPad App Store

## Technical Support

Alumasc's new Drainage Design Calculators are available as a download from the Alumasc Rainwater website. www.alumascrainwater.co.uk

# Gutter Flow Rates

All Flow Rates quoted on this page are shown in litres per second. Gutter capacities are based on BS EN 12056-3:2000, assuming a maximum distance of 50 x gutter depth, from high point to outlet. Longer gutters or gutters with corners exceeding 10° will have a reduced capacity. For further information contact Alumasc Technical Services.

## Rainwater Gutter Flow Rates (l/s)

| | | | Pipe/Outlet Diameter (mm) | | | Pipe outlet size (mm) | | |
|---|---|---|---|---|---|---|---|---|
| Gutter Range | Profile | Size (mm) | 63 | 75 | 100 | 75x75 | 100x75 | 100x100 |
| Heritage | Half Round | 100 | 1.14 | 1.24 | - | 1.24 | 1.24 | - |
| | | 113 | 1.14 | 1.62 | - | 1.62 | 1.62 | - |
| | | 125 | 1.24 | 2.08 | - | 2.08 | 2.08 | - |
| | Beaded Half Round | 113 | 1.62 | 1.62 | - | 1.62 | 1.62 | - |
| | | 125 | 1.77 | 1.90 | - | 2.08 | 2.08 | - |
| | Beaded Deep Run | 113x75 | 1.77 | 1.90 | - | 2.10 | 3.06 | - |
| | Victorian Ogee | 100 | 1.32 | 1.32 | - | 1.32 | 1.32 | - |
| | | 113 | 1.35 | 1.82 | - | 1.82 | 1.82 | - |
| | | 125 | 1.35 | 2.12 | - | 2.10 | 2.34 | - |
| | Moulded | 100x75 | 1.40 | 1.64 | - | 2.10 | 2.44 | - |
| | | 125x100 | 1.52 | 1.97 | 3.81 | 2.10 | 4.62 | 4.62 |
| | | 150x100 | 2.42 | 2.84 | 3.81 | 2.10 | 4.65 | 5.12 |
| Aqualine | Half Round | 100x50 | 0.99 | 1.12 | - | 1.12 | 1.12 | - |
| | | 120x60 | 0.99 | 1.71 | - | 1.86 | 1.86 | - |
| | | 150x75 | 0.99 | 1.71 | 3.44 | 2.10 | 3.44 | 3.44 |
| | Deep Run | 110x85 | 0.99 | 1.71 | 2.88 | 2.10 | 2.88 | 2.88 |
| | Modern | 100x85 | 0.99 | 1.71 | - | 2.10 | 2.38 | - |
| | | 150x120 | 0.99 | 1.71 | 3.81 | 2.10 | 3.63 | 5.41 |
| | Moulded | 140x100 | 0.99 | 1.71 | - | 2.10 | 3.52 | - |
| | | 160x100 | 0.99 | 1.71 | 3.81 | 2.10 | 3.63 | 4.38 |
| | Box | 120x80 | 1.39 | 2.08 | 2.72 | 2.38 | 3.32 | 3.72 |
| | | 140x100 | 1.55 | 2.32 | 4.21 | 2.66 | 4.02 | 5.32 |
| | | 160x100 | 1.55 | 2.33 | 4.26 | 2.67 | 4.04 | 5.39 |
| GX | Joggle | 100x75 | 1.32 | 1.95 | - | 2.28 | - | - |
| | | 125x100 | 1.52 | 2.31 | 4.14 | 2.64 | 3.99 | 5.23 |
| | | 150x100 | 1.52 | 2.31 | 4.14 | 2.64 | 3.99 | 5.23 |
| | | 150x150 | 1.89 | 2.83 | 5.16 | 3.24 | 4.89 | 6.59 |
| | | 200x150 | 1.89 | 2.83 | 5.16 | 3.24 | 4.89 | 6.59 |
| | Smooth | 120x75 | 1.32 | 1.93 | - | 2.27 | 2.87 | - |
| | | 140x100 | 1.52 | 2.28 | 3.99 | 2.61 | 3.95 | 5.04 |
| | | 170x125 | 1.73 | 2.59 | 4.73 | 2.97 | 4.48 | 6.04 |
| | | 175x150 | 1.90 | 2.84 | 5.20 | 3.26 | 4.92 | 6.63 |
| | | 225x150 | 1.88 | 2.82 | 5.15 | 3.23 | 4.88 | 6.57 |
| | Moulded | 113x75 | 0.99 | 1.71 | - | 2.10 | - | - |
| | | 140x100 | 0.99 | 1.71 | 3.81 | 2.10 | 3.63 | 5.41 |
| | | 160x100 | 0.99 | 1.71 | 3.81 | 2.10 | 3.63 | 5.41 |
| | | 175x150 | 0.99 | 1.71 | 3.81 | 2.10 | 3.63 | 5.41 |
| | | 200x150 | 0.99 | 1.71 | 3.81 | 2.10 | 3.63 | 5.41 |

### Rainwater Pipe Flow Rates

Note: The capacity of a rainwater system is usually dependent upon the capacity of the gutter outlet or flat roof outlet rather than the rainwater pipe. Please refer to BS EN 12056-3:2000, Section 6, Table 8 for capacities of vertical rainwater pipes.

# NBS Specification

A typical NBS Specification for Alumasc aluminium gutters and downpipes is provided below. A full range of NBS specifications are available via Alumasc's online NBS Specification Builder at www.alumascrainwater.co.uk.
For project specific specification advice, contact Alumasc Technical Services.

## R10 Rainwater Drainage Systems



### GENERAL

- Gravity Rainwater Drainage System.
- Rainwater outlets, gutters, pipework and accessories as per detail sections below.

### SYSTEM PERFORMANCE

- Design Standard: To BS EN 12056-3:2000, clauses 3-7 and National Annexes.
- Collection and Distribution of Rainwater: Complete, and without leakage or noise nuisance.
- Design Parameters: Design rate of rainfall as per BS EN 12056-3:2000, National Annex NB.2 - Category 1

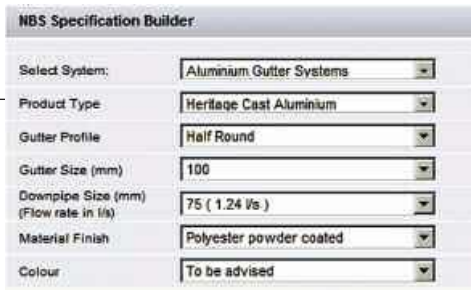
### PRODUCTS (TYPICAL SPECIFICATION)

HERITAGE ALUMINIUM HALF ROUND GUTTER (100mm)

311 HERITAGE ALUMINIUM GUTTERS

Gutters and fittings to: BS 8530 (formerly BS 2997)
Manufacturer: Alumasc Exterior Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG.
Tel: 01744 648400, Fax: 01744 648401, Email: info@alumasc-exteriors.co.uk

| | |
|---|---|
| Reference: | Heritage cast aluminium rainwater system |
| Profile: | Half Round |
| Size: | 100mm |
| Outlet Size: | 75mm |
| Type/grade: | Made from LM2 and LM6 grades of Aluminium alloy to BSEN1559:1997, BSEN 1676:1997 and BSEN 1706:1998 |
| Finish: | Polyester powder coated to BS EN 12206-1:2004 |
| Colour: | To be advised |
| Jointing: | Gutter lengths or fittings are overlapped at the joint with a spigot and socket. Slots are provided for fixing using M6 mushroom head aluminium screws with nuts and washers. Seal evenly across the joints with Dow Corning 791. |
| Fixing: | Fascia bracket fixed at 915mm centres and at each fitting using number 12x38mm round head twin thread screws and washers bright zinc plated. |




Create Alumasc Rainwater System NBS specifications by selecting the required product range, profile, size and finish by visiting:

www.alumascrainwater.co.uk

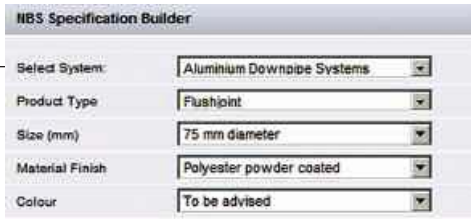
### PRODUCTS (TYPICAL SPECIFICATION)

FLUSHJOINT ALUMINIUM DOWNPIPE (75mm diameter)

370 FLUSHJOINT ALUMINIUM PIPEWORK FOR EXTERNAL USE:

Pipes, fittings and accessories to: BS 2997
Manufacturer: As above

| | |
|---|---|
| Reference: | Flushjoint aluminium downpipe system |
| Size: | 75mm diameter |
| Type/grade: | 6063 TF alloy |
| Finish: | Polyester powder coated to BS EN 12206-1:2004 |
| Colour: | To be advised |
| Fixing: | Pipe clip fixed at maximum 2.0m centres. Plug and screw to wall with number 12 x 50mm round head twin thread screws and washers bright zinc plated to BS 1706:1960 Class ZN3. Seal internal spigot joints with Dow corning 791 silicone sealant allowing for a 3-4 mm vertical thermal movement gap. |
| Accessories: | Bends, Branches, Access Pipes, Offsets, Shoes, Rainwater Heads, Pipe Clips |



# General Specification Advice

General specification clauses for aluminium rainwater systems are provided below.
For project specific specification advice, contact Alumasc Technical Services.

## EXECUTION CLAUSES

### 600 PREPARATION, ENSURE:

- 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 galvanized 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, sherardized, galvanized 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.
- Spread jointing compound evenly over jointing face of socket.
- For gutters with bolted joints, tighten joints in the gutter sole before any other bolts. Fit suitable washers, and spacers to prevent overtightening, unless specified otherwise.
- Tighten fixing to squeeze out some compound.
- Remove surplus, squeezed out compound and neatly clean off.
- Ensure that roofing underlay is dressed into gutter.

### 615 SETTING OUT EAVES GUTTERS - TO FALLS

- Set out to a true line and even gradient to ensure no ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
- 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.

### 650 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.

### 675 COATED PIPEWORK/GUTTERS:

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

### 685 IDENTIFICATION OF INTERNAL RAINWATER PIPEWORK:

- To BS 1710 using self-adhesive bands or identification clips located at junctions, at both sides of each slab, bulkhead and wall penetration, and elsewhere as directed.

### 690 ELECTRICAL CONTINUITY:

- 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.

### 700 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 CLAUSES

### 900 TESTING GENERALLY:

- Inform the Contractor Administrator 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 Contractor Administrator.

### 905 INTERNAL PIPEWORK TEST - ENGLAND, WALES AND NORTHERN IRELAND:

- Temporarily seal open ends of pipework with plugs.
- Connect a 'U' tube water gauge and air pump to the pipework via a plug.
- Pump air into pipework until gauge registers 38 mm.
- Allow a period for temperature stabilization, after which the pressure of 38 mm is to be maintained without loss for not less than 3 minutes.

### 906 INTERNAL PIPEWORK TEST- SCOTLAND

- Standard - To BSEN12056-3:2000, National Annex NG

### 910 GUTTER TEST:

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

### 915 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.

### 920 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.

# Skyline System – Introduction

The interface between walls and roof at the building eaves is one of the most crucial facets of design - both functionally and aesthetically. The sharpness and vibrancy of Alumasc's Skyline range of Fascias, Soffits and Copings provides dramatic engineered solutions over a wide range of buildings for both public and commercial sectors.

## The Skyline Range

Skyline is a stylish and functional aluminium fascia, soffit and coping range offering solutions for use at roofing and gutter interfaces. Standard and fully bespoke designs from the Skyline range are available in high quality, in-house powder coated aluminium.

Skyline fascia and soffit components are designed to be used in conjunction with Alumasc's aluminium rainwater systems, in particular the GX range of folded aluminium gutters, providing a complete eaves and roof drainage solution.

Alumasc Technical Services can assist in the design of a fixing and support framework to suit individual project requirements. A design and fabrication service is also available for bespoke fascia profiles to suit special project requirements.

Skyline is not a rigid set of standard components, but a product rationale, developed to exploit the potential of Alumasc's wide ranging production capability in pressed and folded aluminium.



### Skyline Fascias and Soffits

Skyline's range of four generic fascia profiles in aluminium, complemented by interlocking soffit planks, provides a wide choice of building eaves solutions.

Fascia profiles combine with soffit panels to create a range of fascia configurations which may be projected direct from the elevation or they may be combined with Alumasc soffit planks to produce varying eaves overhangs. (See page 104)

### Skyline Coping System

Skyline Copings provide an economical and easily installed capping to upstanding parapets, in conjunction with flat or pitched roofs. The strap fixing method avoids penetration of the capping, whilst allowing ventilation over the top of the wall. Skyline Copings are maintenance free, available in a wide range of colours and are equally suited to retrofit and new build projects. (See page 105)

### Skyline Anti-Climb

Skyline Anti-Climb is designed with security in mind, preventing unauthorised access to the building roofscape. Skyline Anti-Climb barriers comprise support brackets and preformed curved barrier sections. They can be fitted in front of virtually any gutter profile, resulting in a bold architectural feature.



# Skyline Fascias and Soffits

Alumasc's Skyline Fascia and Soffit configurations offer top of the range roof edge details to suit all designs and budgets.



## Standard Skyline Profiles

Skyline Fascias and Soffits are manufactured from high quality, polyester powder coated aluminium and are available in four bold generic shapes with bespoke designs available to order. Skyline can be fully integrated with Alumasc's aluminium rainwater systems.

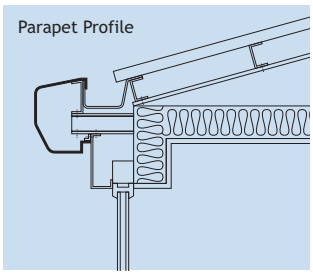
## Skyline Designer

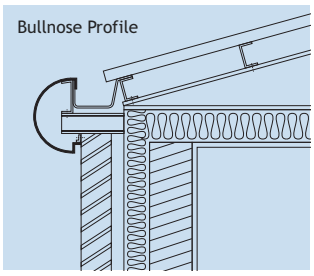
Skyline Designer is not a defined product range, but a collection of ideas which provide the architect with an opportunity to create highly distinctive fascias, soffit panels and cassettes that can be detailed and fabricated in a multitude of shapes and sizes to suit project requirements. If it can be made, we can make it.

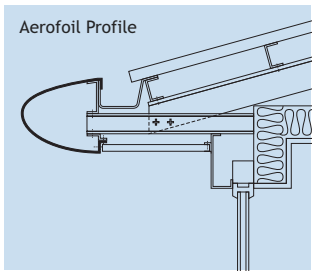
Alumasc Technical Services can offer advice from the first pencil sketches right up to site installation. Once the architectural details are agreed, full working drawings are produced with client approval requested prior to fabrication.

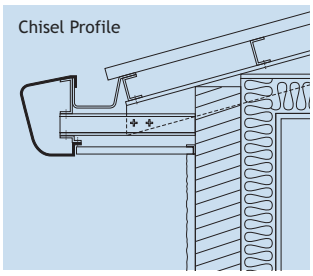













# Skyline Coping System

The Skyline Coping system provides an economical and easily installed capping to upstand parapets, in conjunction with flat or pitched roofs. The strap fixing method avoids penetration of the capping, whilst allowing ventilation over the top of the wall. Skyline Copings are equally suited to retrofit and new build projects.

## Applications

- Provides a totally weatherproof covering to upstand parapets as fixing method does not penetrate the Skyline Coping
- Suitable for new buildings and retrofit

## Performance

- Attractive, clean lines are maintained as fixings are not visible on the surface of the Skyline Coping
- The fixing strap profile allows ventilation over the top of the wall whilst remaining weatherproof
- Material thickness and fixing mechanism gives excellent rigidity
- Lightweight, durable and non-corrodible
- Coefficient of linear thermal expansion is 23 x 10-6mm/m/°C
- A gap of 3-4mm should be left between Skyline Coping sections to accommodate thermal expansion
- Life expectancy of aluminium: 40 years (rural/suburban areas); up to 25 years (industrial/marine areas)
- Aluminium is 100% recyclable

## Components and Manufacture

- UK manufactured
- Skyline Coping are fabricated from 2mm or 3mm thick aluminium alloy sheet, depending on width
- Fixing straps are pressed 3mm aluminium with extruded EPDM seals bonded to the top surface
- All fabricated fittings (90° corners, irregular corners, stop ends, closed ends, upstands, 90° tee junctions) are mitred, welded and have a smooth finish on the front face
- A waterproof membrane will be required beneath the Skyline Coping to provide an effective seal

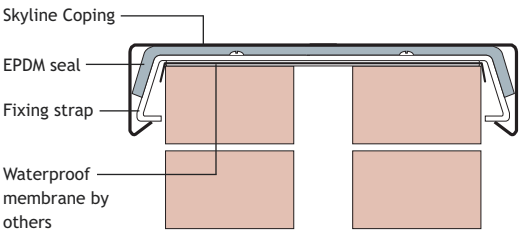
## Colours & Finishes

- In-house polyester powder coating facility with 16 BBA approved standard colours
- Additional BS or RAL colours available to special order; also available in plain mill finish for on-site painting

## Installation & Fixing

- Simple and quick to install
- In most cases fixing can be carried out from the roof so no external access is required making it particularly suitable for renovation work
- Minimal maintenance requirements

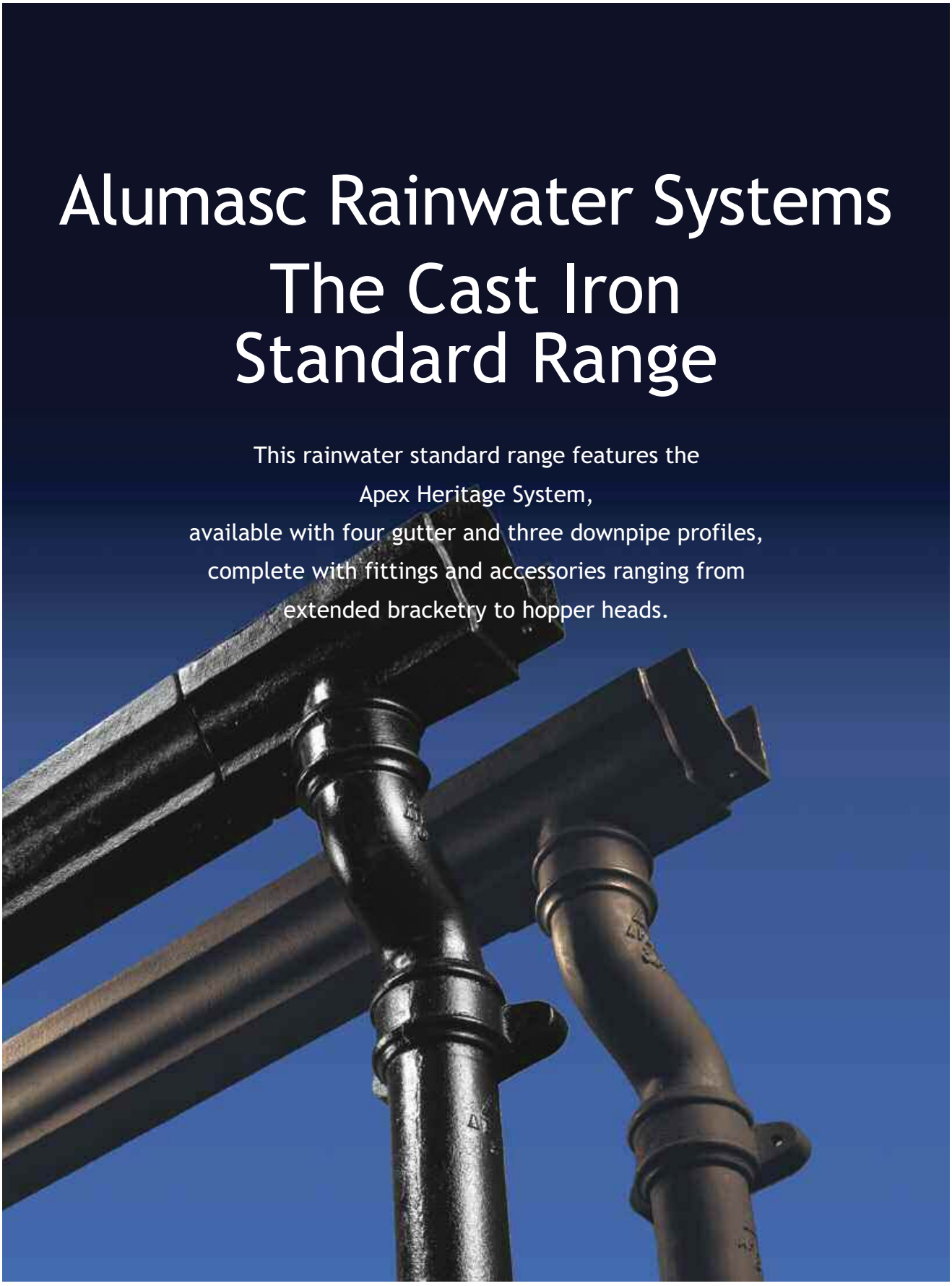







# Alumasc Rainwater Systems
# The Cast Iron Standard Range

This rainwater standard range features the Apex Heritage System, available with four gutter and three downpipe profiles, complete with fittings and accessories ranging from extended bracketry to hopper heads.



# Standard Cast Iron Rainwater Range – Introduction

Apex Heritage Cast Iron is a complete range of traditional sand cast gutters, downpipes and fittings combined with a made to order capability to suit any new, refurbished or restored building projects.







# Apex Heritage Rainwater Systems - Standard Range Product Summary



Apex Heritage - Half Round Gutter



Apex Heritage - Beaded Half Round Gutter



Apex Heritage - Circular Pipe



Apex Heritage - Victorian Ogee Gutter



Apex Heritage - Moulded Gutter



Apex Heritage - Square Pipe





Apex Heritage - Rectangular Pipe

# Apex Heritage Rainwater Systems - Standard Range Product Summary

Apex Heritage is a comprehensive range of traditional gutter profiles, round, square and rectangular pipes and all associated fittings and accessories. Designed to provide all the essential architectural features appropriate to traditionally designed buildings, the Apex Heritage range is also fully in tune with modern fast track building contracts.

## Applications

- Suited to traditional craft based contracts
- Closely replicates historic styles
- For both flush and projecting eaves applications

## Features & Performance

- 4 gutter profiles and 3 downpipe profiles available in a choice of sizes
- Downpipes available in 0.9m (3ft) and 1.83m (6ft) lengths
- Extremely strong, durable and vandal resistant
- Dimensionally accurate and stable
- Life expectancy in excess of 40 years
- Cast iron is 100% recyclable

## Colours & Finishes

- A high quality two-pack epoxy primer and top coat painted finish
- Now available in a range of 8 standard RAL colour options with other RAL colours available to special order
- 'Factory Certified' Paint finish
- Also available in a factory primed one coat of protective oxide primer

## Manufacture

- Authentic sand castings combining traditional manufacture with modern quality control standards
- A comprehensive standard range complemented with master patterns for a wide range of gutter profiles, downpipes and accessories, which can be manufactured to order.
- Complies with BS 460:2002 Cast Iron Rainwater Goods

## Installation & Fixing

- Gutters are wet sealed with bolted joints, with a range of fixing options
- For Half Round gutters the Hydrostrip EDPM rubber seal is recommend for faster and cleaner solution to gutter jointing
- Gutters should be supported at 900mm centres either on brackets or for ogee, moulded and box types, by direct screw fixing through the back of the gutter
- Downpipes should be fixed back to the wall at 1.83 (6ft) centres through eared sockets or via separate earbelt and holderbats
- Minimal maintenance requirements

## Gutter Profiles & Sizes



**Half Round**

100mm (4")
113mm (4.5")
125mm (5")
150mm (6")



**Beaded Half Round**

113mm (4.5)
125mm (5")



**Victorian Ogee**

113mm (4.5")
125mm (5")



**Moulded**

100 x 75mm (4 x 3")
125 x 100mm (5 x 4")
150 x 100mm (6 x 4")

## Pipe Profiles & Sizes



**Circular Pipe**

63mm (2.5")
75mm (3")
100mm (4")
*Length*
1.83m (6')
0.9mm (3')



**Square Pipe**

75 x 75mm (3 x 3")
100 x 100mm (4 x 4")
*Length*
1.83m (6')
0.9mm (3')



**Rectangular Pipe**

100 x 75mm (4 x 3")
125 x 100mm (5 x 4")
150 x 100 mm (6 x 4")
*Length*
1.83m (6')
0.9mm (3')



Factory-applied oxide primer



Pre-finished painted black

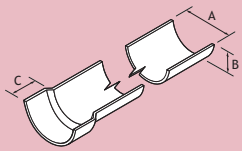
# Apex Heritage – Half Round Gutters and Fittings



Apex Heritage Half Round socketed cast iron gutters are available in 4 sizes. A traditional profile with the unmistakable character and appearance of sand cast iron. There is a range of fittings and fixings as illustrated.

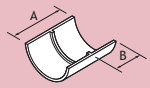
Note: All dimensions shown are in mm unless shown otherwise.
Gutter sizes shown are nominal.

## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 100 (4”) | 1830mm | 102 | 51 | 44 | 4 | 8.0 | HG40/6FT |
| 113 (4.5”) | 1830mm | 114 | 57 | 44 | 4 | 10.5 | HG45/6FT |
| 125 (5”) | 1830mm | 127 | 63 | 44 | 4 | 11.5 | HG50/6FT |
| 150 (6”) | 1830mm | 150 | 75 | 44 | 4 | 13.5 | HG60/6FT |
| Note: T = Thickness (nominal +/- 1mm) | | | | | | | |

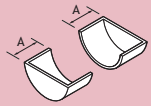
## Union Clips




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 | 98 | 44 | HG40/UC |
| 113 | 98 | 44 | HG45/UC |
| 125 | 98 | 44 | HG50/UC |
| 150 | 95 | 44 | HG60/UC |

## Stop Ends

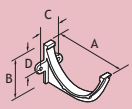
External Gutter




Internal Socket

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 | External | 51 | HG40/SE/E |
| 113 | " | 51 | HG45/SE/E |
| 125 | " | 51 | HG50/SE/E |
| 150 | " | 51 | HG60/SE/E |
| 100 | Internal | 45 | HG40/SE/I |
| 113 | " | 45 | HG45/SE/I |
| 125 | " | 45 | HG50/SE/I |
| 150 | " | 45 | HG60/SE/I |

## Fascia Brackets

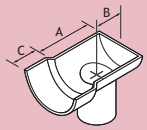



| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 100 | 127 | 65 | 38 | 35 | HG40/FB/CI |
| 113 | 140 | 70 | 38 | 40 | HG45/FB/CI |
| 125 | 155 | 85 | 38 | 45 | HG50/FB/CI |
| 150 | 190 | 120 | 30 | 90 | HG60/FB/CI |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

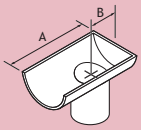
# Apex Heritage – Half Round Gutters and Fittings

## Drop End Outlet - with Socket



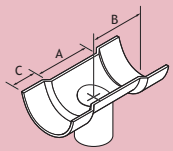

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | 63 dia | 125 | 64 | 44 | HG40/DE/25/E |
| 113 | 63 dia | 125 | 64 | 44 | HG45/DE/25/E |
| 125 | 63 dia | 125 | 64 | 44 | HG50/DE/25/E |
| 100 | 76 dia | 125 | 64 | 44 | HG40/DE/30/E |
| 113 | 76 dia | 125 | 64 | 44 | HG45/DE/30/E |
| 125 | 76 dia | 125 | 64 | 44 | HG50/DE/30/E |

## Drop End Outlet - with Spigot



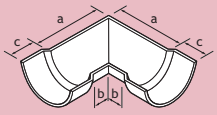

| Gutter Size | Pipe Size | A | B | Product Code |
|---|---|---|---|---|
| 100 | 63 dia | 172 | 64 | HG40/DE/25/I |
| 113 | 63 dia | 172 | 64 | HG45/DE/25/I |
| 125 | 63 dia | 172 | 64 | HG50/DE/25/I |
| 100 | 76 dia | 172 | 64 | HG40/DE/30/I |
| 113 | 76 dia | 172 | 64 | HG45/DE/30/I |
| 125 | 76 dia | 172 | 64 | HG50/DE/30/I |

## Running Outlet - with Double Spigot Socket



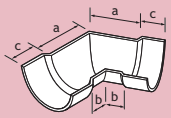

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | 63 dia | 156 | 121 | 44 | HG40/RO/25 |
| 113 | 63 dia | 156 | 121 | 44 | HG45/RO/25 |
| 125 | 63 dia | 156 | 121 | 44 | HG50/RO/25 |
| 100 | 75 dia | 156 | 121 | 44 | HG40/RO/30 |
| 113 | 75 dia | 156 | 121 | 44 | HG45/RO/30 |
| 125 | 75 dia | 156 | 121 | 44 | HG50/RO/30 |
| 150 | 75 dia | 156 | 121 | 44 | HG60/RO/30 |
| 125 | 100 dia | 156 | 121 | 44 | HG50/RO/40 |
| 150 | 100 dia | 156 | 121 | 44 | HG60/RO/40 |

## 90° Angles Combined



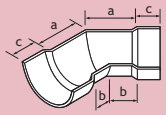

| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | Internal/External | 190 | 79 | 44 | HG40/A/90 |
| 113 | Internal/External | 200 | 79 | 44 | HG45/A/90 |
| 125 | Internal/External | 209 | 79 | 44 | HG50/A/90 |
| 150 | Internal/External | 235 | 79 | 44 | HG60/A/90 |

## 120° Angles Combined




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | Internal/External | 124 | 79 | 44 | HG40/A/120 |
| 113 | Internal/External | 124 | 76 | 44 | HG45/A/120 |
| 125 | Internal/External | 136 | 79 | 44 | HG50/A/120 |
| 150 | Internal/External | 140 | 75 | 44 | HG60/A/120 |

## 135° Angles Combined




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | Internal/External | 124 | 79 | 44 | HG40/A/135 |
| 113 | Internal/External | 124 | 76 | 44 | HG45/A/135 |
| 125 | Internal/External | 137 | 79 | 44 | HG50/A/135 |
| 150 | Internal/External | 128 | 75 | 44 | HG60/A/135 |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

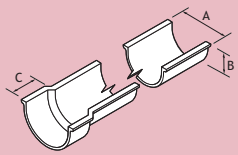
# Apex Heritage – Beaded Half Round Gutters and Fittings



Apex Heritage Beaded Half Round socketed cast iron gutters, in 2 sizes, incorporate a pronounced feature bead on both lips. This adds character and definition to the gutter edge in a true sand cast product. Fittings and fixings are also available as illustrated.

Note: All dimensions shown are in mm unless shown otherwise.
Gutter sizes shown are nominal.

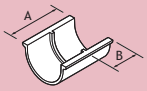
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 113 (4.5”) | 1830mm | 114 | 57 | 44 | 4 | 11 | BG45/6FT |
| 125 (5”) | 1830mm | 127 | 63 | 44 | 4 | 12.5 | BG50/6FT |

Note: T = Thickness (nominal +/- 1mm)

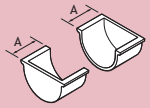
## Union Clips




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 113 | 78 | 44 | BG45/UC |
| 125 | 78 | 44 | BG50/UC |

## Stop Ends

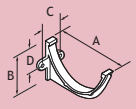
External Gutter




Internal Socket

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 113 | External | 51 | BG45/SE/E |
| 125 | " | 51 | BG50/SE/E |
| 113 | Internal | 45 | BG45/SE/I |
| 125 | " | 45 | BG50/SE/I |

## Fascia Brackets

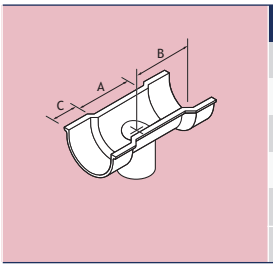



| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 113 | 155 | 97 | 25 | 75 | BG45/FB/CI |
| 125 | 160 | 115 | 32 | 87 | BG50/FB/CI |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

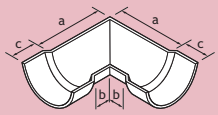
# Apex Heritage – Beaded Half Round Gutters and Fittings

## Running Outlet - with Double Spigot Socket



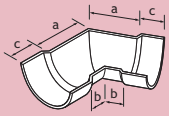

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | 63 dia | 156 | 121 | 44 | BG45/RO/25 |
| 125 | 63 dia | 156 | 121 | 44 | BG50/RO/25 |
| 113 | 75 dia | 156 | 121 | 44 | BG45/RO/30 |
| 125 | 75 dia | 156 | 121 | 44 | BG50/RO/30 |
| 125 | 100 dia | 156 | 121 | 44 | BG50/RO/40 |

## 90° Angles Combined



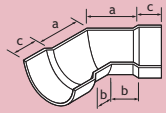

| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | Internal/External | 206 | 70 | 44 | BG45/A/90 |
| 125 | Internal/External | 116 | 70 | 44 | BG50/A/90 |

## 120° Angles Combined




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | Internal/External | 130 | 76 | 44 | BG45/A/120 |
| 125 | Internal/External | 140 | 79 | 44 | BG50/A/120 |

## 135° Angles Combined




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | Internal/External | 130 | 76 | 44 | BG45/A/135 |
| 125 | Internal/External | 140 | 79 | 44 | BG50/A/135 |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

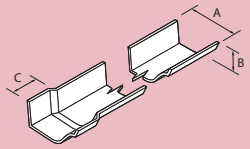
# Apex Heritage – Victorian Ogee Gutters and Fittings



Apex Heritage Ogee cast iron socketed gutters are available in 2 sizes.
An elegant Victorian ogee profile combined with the robust visual quality of sand cast iron. There is a range of fittings and fixings as illustrated.

Note: All dimensions shown are in mm unless shown otherwise.
Gutter sizes shown are nominal.
Victorian Ogee is a left hand socket system.

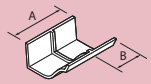
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 113 (4.5”) | 1830mm | 114 | 54 | 44 | 4 | 11.5 | OG45/6FT |
| 125 (5”) | 1830mm | 127 | 63 | 44 | 4 | 12.5 | OG50/6FT |

Note: T = Thickness (nominal +/- 1mm)

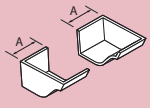
## Union Clips




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 113 | 78 | 44 | OG45/UC |
| 125 | 78 | 44 | BG50/UC |

## Stop Ends

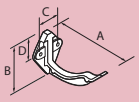
Right Hand External




Left Hand Internal

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 113 | External Right Hand | 54 | OG45/SE/RE |
| 125 | " | 54 | OG50/SE/RE |
| 113 | External Left Hand | 54 | OG45/SE/LE |
| 125 | " | 54 | OG50/SE/LE |
| 113 | Internal Left Hand | 44 | OG45/SE/LI |
| 125 | " | 44 | OG50/SE/LI |

## Fascia Brackets

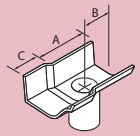



| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 113 | 137 | 85 | 38 | 38 | OG45/FB/CI |
| 125 | 150 | 92 | 38 | 38 | OG50/FB/CI |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

# Apex Heritage – Victorian Ogee Gutters and Fittings

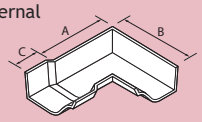
## Running Outlet - with Single Socket



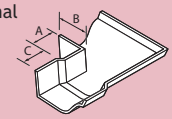

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | 63 dia | 200 | 121 | 44 | OG45/RO/25 |
| 125 | 63 dia | 200 | 121 | 44 | OG50/RO/25 |
| 113 | 75 dia | 200 | 121 | 44 | OG45/RO/30 |
| 125 | 75 dia | 200 | 121 | 44 | OG50/RO/30 |
| 125 | 100 dia | 200 | 121 | 44 | OG50/RO/40 |

## 90° Angles

External



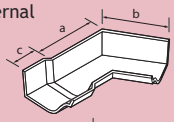

Internal



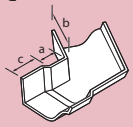

| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | External | 28 | 76 | 44 | OG45/EA/90 |
| 125 | " | 28 | 76 | 44 | OG50/EA/90 |
| 113 | Internal | 156 | 206 | 44 | OG45/IA/90 |
| 125 | " | 159 | 216 | 44 | OG50/IA/90 |

## 120° Angles

External



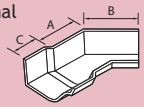

Internal



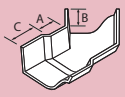

| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | External | 28 | 76 | 44 | OG45/EA/120 |
| 125 | " | 28 | 76 | 44 | OG50/EA/120 |
| 113 | Internal | 98 | 149 | 44 | OG45/IA/120 |
| 125 | " | 105 | 159 | 44 | OG50/IA/120 |

## 135° Angles

External




Internal




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 113 | External | 28 | 76 | 44 | OG45/EA/135 |
| 125 | " | 28 | 76 | 44 | OG50/EA/135 |
| 113 | Internal | 86 | 130 | 44 | OG45/IA/135 |
| 125 | " | 86 | 130 | 44 | OG50/IA/135 |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

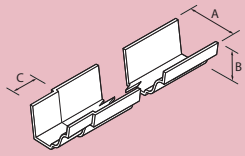
# Apex Heritage – Moulded Gutters and Fittings



Available in 3 sizes, Apex Heritage Moulded socketed cast iron gutters have a sharply featured decorative profile. A range of fittings and fixings as illustrated completes the system.

Note: All dimensions shown are in mm unless shown otherwise.
Gutter sizes shown are nominal.

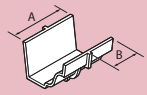
## Gutters




| Gutter Size | Gutter Length | A | B | C | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|---|
| 100 x 75 | 1830mm | 108 | 76 | 50 | 4 | 11 | MG43/6FT |
| 125 x 100 | 1830mm | 140 | 102 | 50 | 4 | 18 | MG54/6FT |
| 150 x 100 | 1830mm | 162 | 102 | 50 | 4 | 19 | MG64/6FT |

Note: T = Thickness (nominal +/- 1mm)

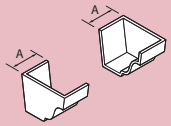
## Union Clips




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 x 75 | 78 | 44 | MG43/UC |
| 125 x 100 | 78 | 44 | MG54/UC |
| 150 x 100 | 78 | 44 | MG64/UC |

## Stop Ends

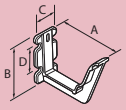
Right Hand External




Left Hand Internal

| Gutter Size | Type | A | Product Code |
|---|---|---|---|
| 100 x 75 | External Right Hand | 54 | MG43/SE/RE |
| 125 x 100 | " | 54 | MG54/SE/RE |
| 150 x 100 | " | 54 | MG64/SE/RE |
| 100 x 75 | Internal Left Hand | 51 | MG43/SE/LI |
| 125 x 100 | " | 51 | MG54/SE/LI |
| 150 x 100 | " | 51 | MG64/SE/LI |
| 100 x 75 | Internal Right Hand | 51 | MG43/SE/RI |
| 125 x 100 | " | 51 | MG54/SE/RI |
| 150 x 100 | " | 51 | MG64/SE/RI |

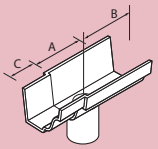
## Fascia Brackets




| Gutter Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | 135 | 125 | 30 | 85 | MG45/FB/CI |
| 125 x 100 | 170 | 150 | 35 | 110 | MG50/FB/CI |
| 150 x 100 | 190 | 150 | 35 | 118 | MG50/FB/CI |

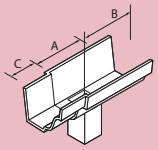
Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

## Running Outlet - Single Spigot/Socket - Round Pipe



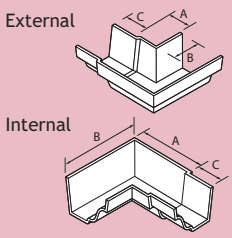

| Gutter Size | Round Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | 63 dia | 251 | 124 | 50 | MG43/RO/25 |
| 125 x 100 | 63 dia | 251 | 124 | 50 | MG54/RO/25 |
| 150 x 100 | 63 dia | 251 | 124 | 50 | MG64/RO/25 |
| 100 x 75 | 75 dia | 251 | 124 | 50 | MG43/RO/30 |
| 125 x 100 | 75 dia | 251 | 124 | 50 | MG54/RO/30 |
| 150 x 100 | 75 dia | 251 | 124 | 50 | MG64/RO/30 |
| 100 x 75 | 100 dia | 251 | 124 | 50 | MG43/RO/40 |
| 125 x 100 | 100 dia | 251 | 124 | 50 | MG54/RO/40 |
| 150 x 100 | 100 dia | 251 | 124 | 50 | MG64/RO/40 |

## Running Outlet with Single Spigot/Socket - Square Pipe



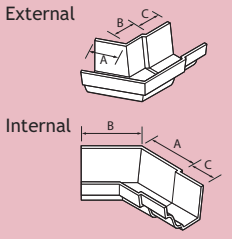

| Gutter Size | Square Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | 75 x 75 | 251 | 124 | 50 | MG43/RO/33 |
| 125 x 100 | 75 x 75 | 251 | 124 | 50 | MG54/RO/33 |
| 150 x 100 | 75 x 75 | 251 | 124 | 50 | MG64/RO/33 |
| 100 x 75 | 100 x 75 | 251 | 124 | 50 | MG43/RO/43 |
| 125 x 100 | 100 x 75 | 251 | 124 | 50 | MG54/RO/43 |
| 150 x 100 | 100 x 75 | 251 | 124 | 50 | MG64/RO/43 |
| 150 x 100 | 100 x 100 | 251 | 124 | 50 | MG64/RO/44 |
| 150 x 100 | 125 x 100 | 251 | 124 | 50 | MG64/RO/54 |

## 90° Angles



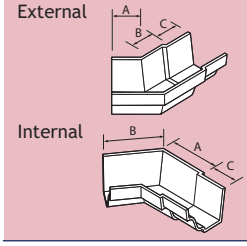

| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | External | 28 | 79 | 50 | MG43/EA/90 |
| 125 x 100 | " | 28 | 79 | 50 | MG54/EA/90 |
| 150 x 100 | " | 25 | 70 | 50 | MG64/EA/90 |
| 100 x 75 | Internal | 137 | 187 | 50 | MG43/IA/90 |
| 125 x 100 | " | 168 | 216 | 50 | MG54/IA/90 |
| 150 x 100 | " | 181 | 229 | 50 | MG64/IA/90 |

## 120° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | External | 35 | 79 | 50 | MG43/EA/120 |
| 125 x 100 | " | 35 | 79 | 50 | MG54/EA/120 |
| 150 x 100 | " | 35 | 79 | 50 | MG64/EA/120 |
| 100 x 75 | Internal | 60 | 111 | 50 | MG43/IA/120 |
| 125 x 100 | " | 111 | 156 | 50 | MG54/IA/120 |
| 150 x 100 | " | 50 | 168 | 50 | MG64/IA/120 |

## 135° Angles




| Gutter Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 x 75 | External | 28 | 79 | 50 | MG43/EA/135 |
| 125 x 100 | " | 35 | 79 | 50 | MG54/EA/135 |
| 150 x 100 | " | 41 | 89 | 50 | MG64/EA/135 |
| 100 x 75 | Internal | 73 | 124 | 50 | MG43/IA/135 |
| 125 x 100 | " | 89 | 137 | 50 | MG54/IA/135 |
| 150 x 100 | " | 98 | 140 | 50 | MG64/IA/135 |

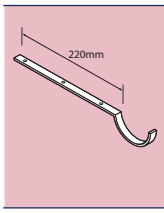
Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

# Apex Heritage – Cast Iron Bracketry

Alumasc can provide traditional style Bracketry for all its standard Apex Heritage gutter profiles. Where building detailing dictates, Alumasc can provide bespoke Bracketry to meet individual project requirements.

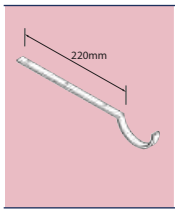
## Traditional 'Old' Style Gutter Brackets

### Top Fix Rafter Arm - Half Round



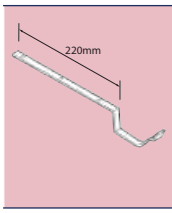

| Gutter Size | Product Code |
|---|---|
| 100 | HG40/RB/TF |
| 113 | HG45/RB/TF |
| 125 | HG50/RB/TF |
| 150 | HG60/RB/TF |

### Top Fix Rafter Arm - Beaded Half Round



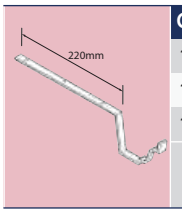

| Gutter Size | Product Code |
|---|---|
| 113 | BG45/RB/TF |
| 125 | BG50/RB/TF |

### Top Fix Rafter Arm - Victorian Ogee



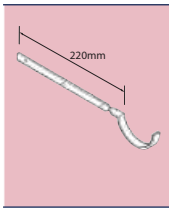

| Gutter Size | Product Code |
|---|---|
| 113 | OG45/RB/TF |
| 125 | OG50/RB/TF |

### Top Fix Rafter Arm - Moulded



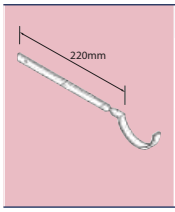

| Gutter Size | Product Code |
|---|---|
| 100 x 75 | MG43/RB/TF |
| 125 x 100 | MG54/RB/TF |
| 150 x 100 | MG64/RB/TF |

### Side Fix Rafter Arm - Half Round



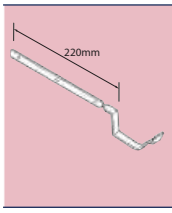

| Gutter Size | Product Code |
|---|---|
| 100 | HG40/RB/SF |
| 113 | HG45/RB/SF |
| 125 | HG50/RB/SF |
| 152 | HG60/RB/SF |

### Side Fix Rafter Arm - Beaded Half Round/Deep Run



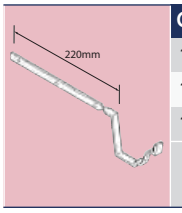

| Gutter Size | Product Code |
|---|---|
| 113 | BG45/RB/SF |
| 125 | BG50/RB/SF |

### Side Fix Rafter Arm - Victorian Ogee




| Gutter Size | Product Code |
|---|---|
| 113 | OG45/RB/SF |
| 125 | OG50/RB/SF |

### Side Fix Rafter Arm - Moulded

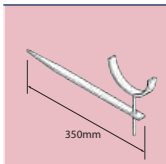



| Gutter Size | Product Code |
|---|---|
| 100 x 75 | MG43/RB/SF |
| 125 x 100 | MG54/RB/SF |
| 150 x 100 | MG64/RB/SF |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

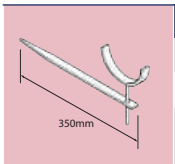
# Apex Heritage – Cast Iron Bracketry

### Drive in Rise & Fall - Half Round



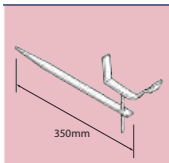

| Gutter Size | Product Code |
|---|---|
| 100 | HG40/R&F/GS |
| 113 | HG45/R&F/GS |
| 125 | HG50/R&F/GS |
| 150 | HG60/R&F/GS |

### Drive in Rise & Fall - Beaded Half Round



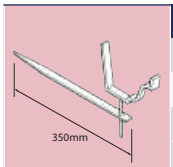

| Gutter Size | Product Code |
|---|---|
| 113 | BG45/R&F/GS |
| 125 | BG50/R&F/GS |

### Drive in Rise & Fall - Victorian Ogee



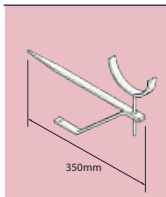

| Gutter Size | Product Code |
|---|---|
| 113 | OG45/R&F/GS |
| 125 | OG50/R&F/GS |

### Drive in Rise & Fall - Moulded



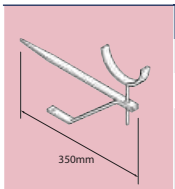

| Gutter Size | Product Code |
|---|---|
| 100 x 75 | MG43/R&F/GS |
| 125 x 100 | MG54/R&F/GS |
| 150 x 100 | MG64/R&F/GS |

### Drive in Rise & Fall with 330mm Stay - Half Round



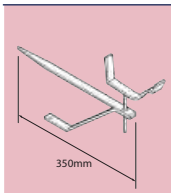

| Gutter Size | Product Code |
|---|---|
| 100 | HG40/R&F/WS |
| 113 | HG45/R&F/WS |
| 125 | HG50/R&F/WS |
| 150 | HG60/R&F/WS |

### Drive in Rise & Fall with 330mm Stay - Beaded Half Round



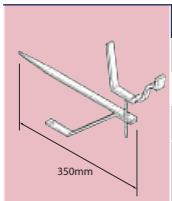

| Gutter Size | Product Code |
|---|---|
| 113 | BG45/R&F/WS |
| 125 | BG50/R&F/WS |

### Drive in Rise & Fall with 330mm Stay - Victorian Ogee




| Gutter Size | Product Code |
|---|---|
| 113 | OG45/R&F/WS |
| 125 | OG50/R&F/WS |

### Drive in Rise & Fall with 330mm Stay - Moulded




| Gutter Size | Product Code |
|---|---|
| 100 x 75 | MG43/R&F/WS |
| 125 x 100 | MG54/R&F/WS |
| 150 x 100 | MG64/R&F/WS |



## Bespoke Bracketry

Alumasc can design and manufacture a variety of Bracketry solutions for gutters and pipes to create an integrated system solution. Such detailing can often be used to support fascia and soffit configurations.

Ornate holderbats and earbelts can be detailed to provide a unique, distinguished appearance to a rainwater stack.

Where standard fitting dimensions do not suit the project's requirements, Alumasc can fabricate its gutter and pipe Bracketry systems to accommodate building design.

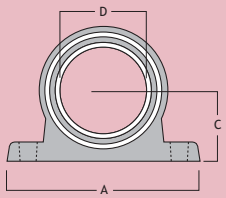
Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

# Apex Heritage – Circular Pipes and Fittings

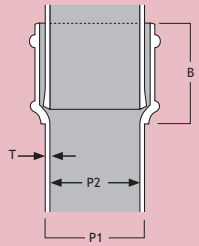


A range of traditional cast iron socketed round rainwater pipes in a choice of 3 pipe diameters and 2 pipe lengths. There is a comprehensive range of cast iron fittings, and traditional holderbat and earbelt fixings. Cast iron rainwater hopper heads are also available to suit.

Note: All dimensions shown are in mm unless shown otherwise.
Pipe sizes shown are nominal.




| Sockets (Nominal) | 63 | 75 | 100 |
|---|---|---|---|
| A Width of flange | 146 | 162 | 191 |
| B Depth of socket | 63.5 | 63.5 | 63.5 |
| C Distance of centre to wall | 48 | 54 | 67 |
| D Internal dia | 73 | 90 | 111 |




| Pipes (Nominal) | 63 | 75 | 100 |
|---|---|---|---|
| P1 External dia | 63.5 | 82.5 | 108 |
| P2 Internal dia | 57 | 70 | 95 |
| T Thickness | 3 | 3 | 3 |

Notes:

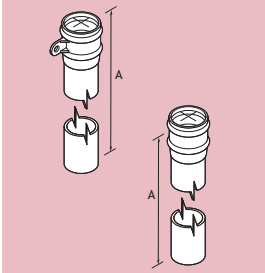
1 If bends with ears are required, add one of the following suffixes to the Product Code according to its intended use:
   - front bend /FE
   - back bend /BE
   - lefthand bend /LE
   - righthand bend /RE
2 If plinth offsets with ears are required, add suffix PE to the Product Code.
3 Swan-necks can also be used as side offsets. If side offsets with ears are required, add one of the following suffixes to the Product Code according to its intended use:
   - lefthand side offset /LE
   - righthand side offset /RE
4 Shoes can also be used as side shoes. If side shoes with ears are required, add one of the following suffixes to the Product Code according to its intended use:
   - lefthand side shoe /LE
   - righthand side shoe /RE
5 If shoes with ears are required, add suffix E to the Product Code.
6 If ears are required on single branches or diminishing pieces, please contact Alumasc Technical Services department for further details.
7 Should projections other than those shown be required for plinth offsets or swan-necks, please contact Alumasc Technical Services for further details.



Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

# Apex Heritage – Circular Pipes and Fittings

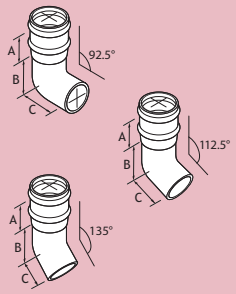
## Pipes - With and Without Ears




| Pipe Size | A | Product Code |
|---|---|---|
| 63 dia | 915 | P25/3FT |
| 75 dia | 915 | P30/3FT |
| 100 dia | 915 | P40/3FT |
| 63 dia | 1830 | P25/6FT |
| 75 dia | 1830 | P30/6FT |
| 100 dia | 1830 | P40/6FT |

Note: The codes given above are for pipes with ears. For pipes without ears suffix codes with /NE

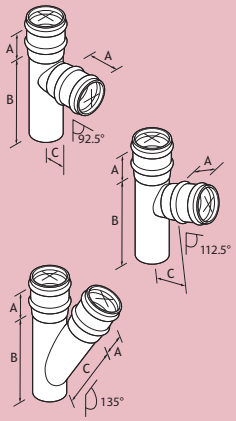
## Bends




| Pipe Size | Bend | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | 92.5 Degree | 63 | 76 | 140 | P25/B/92 |
| 75 dia | " | 63 | 83 | 146 | P30/B/92 |
| 100 dia | " | 63 | 95 | 159 | P40/B/92 |
| 63 dia | 112.5 Degree | 63 | 57 | 121 | P25/B/112 |
| 75 dia | " | 63 | 60 | 124 | P30/B/112 |
| 100 dia | " | 63 | 70 | 133 | P40/B/112 |
| 63 dia | 135 Degree | 63 | 44 | 108 | P25/B/135 |
| 75 dia | " | 63 | 48 | 111 | P30/B/135 |
| 100 dia | " | 63 | 51 | 114 | P40/B/135 |

Note: If bends with ears are required, add one of the following suffixes to the Product Code:
Front Bend /FE  Back Bend /BE  Left Hand Bend /LE  Right Hand Bend /RE.

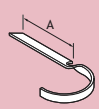
## Branches




| Pipe Size | Branches | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | 92.5 Degree | 63 | 210 | 79 | P25/BR/92 |
| 75 dia | " | 63 | 229 | 79 | P30/BR/92 |
| 100 dia | " | 63 | 267 | 98 | P40/BR/92 |
| 63 dia | 112.5 Degree | 63 | 210 | 79 | P25/BR/112 |
| 75 dia | " | 63 | 229 | 89 | P30/BR/112 |
| 100 dia | " | 63 | 267 | 108 | P40/BR/112 |
| 63 dia | 135 Degree | 63 | 210 | 108 | P25/BR/135 |
| 75 dia | " | 63 | 229 | 124 | P30/BR/135 |
| 100 dia | " | 63 | 267 | 152 | P40/BR/135 |

Note: If ears are required on single branches contact Alumasc Technical Services.

## Drive in Pipe Support

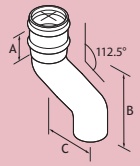



| Pipe Size | A | Product Code |
|---|---|---|
| 63 dia | 300 | P25/HF |
| 75 dia | 300 | P30/HF |
| 100 dia | 300 | P40/HF |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

# Apex Heritage – Circular Pipes and Fittings

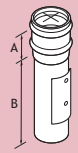
## Side Offsets, Plinth Offsets and Swan Necks




| Pipe Size | Branches | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | 112.5 Degree | 63 | 190 | 76 | P25/OF/03 |
| 63 dia | " | 63 | 210 | 114 | P25/OF/04 |
| 63 dia | " | 63 | 225 | 152 | P25/OF/06 |
| 63 dia | " | 63 | 257 | 229 | P25/OF/09 |
| 63 dia | " | 63 | 289 | 306 | P25/OF/12 |
| 63 dia | " | 63 | 321 | 381 | P25/OF/15 |
| 63 dia | " | 63 | 352 | 457 | P25/OF/18 |
| 75 dia | 112.5 Degree | 63 | 200 | 76 | P30/OF/03 |
| 75 dia | " | 63 | 216 | 114 | P30/OF/04 |
| 75 dia | " | 63 | 232 | 152 | P30/OF/06 |
| 75 dia | " | 63 | 264 | 229 | P30/OF/09 |
| 75 dia | " | 63 | 295 | 306 | P30/OF/12 |
| 75 dia | " | 63 | 327 | 381 | P30/OF/15 |
| 75 dia | " | 63 | 359 | 457 | P30/OF/18 |
| 100 dia | 112.5 Degree | 63 | 219 | 76 | P40/OF/03 |
| 100 dia | " | 63 | 235 | 114 | P40/OF/04 |
| 100 dia | " | 63 | 248 | 152 | P40/OF/06 |
| 100 dia | " | 63 | 279 | 229 | P40/OF/09 |
| 100 dia | " | 63 | 311 | 306 | P40/OF/12 |
| 100 dia | " | 63 | 343 | 381 | P40/OF/15 |
| 100 dia | " | 63 | 375 | 457 | P40/OF/18 |

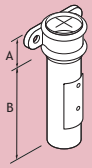
Note: If offsets with ears are required, add one of the following suffixes to the Product Code:
Left Hand Side Offset /LE Right Hand Side Offset /RE.
Other sizes are available on request.

## Access Pipes - Without Ears




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 63 dia | 63 | 343 | P25/AP/NE |
| 75 dia | 63 | 343 | P30/AP/NE |
| 100 dia | 63 | 343 | P40/AP/NE |

## Access Pipes - With Ears

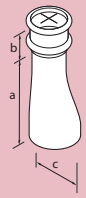



| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 63 dia | 63 | 343 | P25/AP |
| 75 dia | 63 | 343 | P30/AP |
| 100 dia | 63 | 343 | P40/AP |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

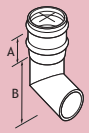
# Apex Heritage – Circular Pipes and Fittings

## Diminishing Pieces




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 100 dia | 140 | 63 | 63 | P40/DIM/25 |
| 100 dia | 140 | 63 | 76 | P40/DIM/30 |

## Shoes

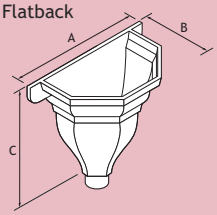



| Pipe Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | Regular | 63 | 102 | - | P25/SH |
| 75 dia | " | 63 | 114 | - | P35/SH |
| 100 dia | " | 63 | 143 | - | P40/SH |
| 63 dia | Anti-splash | 63 | 159 | 149 | P25/SH/A |
| 75 dia | " | 63 | 175 | 171 | P35/SH/A |
| 100 dia | " | 63 | 197 | 206 | P40/SH/A |

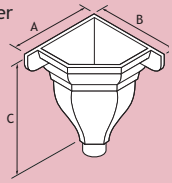
Note: If shoes are required add /E to the Product Code.
Shoes used as side shoes for a left hand side shoe with ears add /LE. For a right hand side shoe add/RE.

## Rainwater Heads

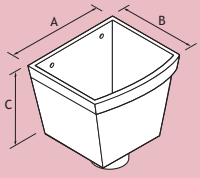
Flatback




Corner




Rectangular




| Pipe Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 63 dia | Flatback | 298 | 190 | 210 | HH/001/25F |
| 75 dia | " | 298 | 190 | 210 | HH/001/30F |
| 100 dia | " | 337 | 229 | 241 | HH/001/40F |
| 63 dia | Corner | 210 | 210 | 210 | HH/001/25C |
| 75 dia | " | 210 | 210 | 210 | HH/001/30C |
| 100 dia | " | 235 | 235 | 241 | HH/001/40C |
| 63 dia | Small Rectangular | 254 | 178 | 178 | HH/002/25 |
| 75 dia | " | 254 | 178 | 178 | HH/002/30 |
| 100 dia | " | 254 | 178 | 178 | HH/002/40 |
| 63 dia | Large Rectangular | 305 | 250 | 250 | HH/003/25 |
| 75 dia | " | 305 | 250 | 250 | HH/003/30 |
| 100 dia | " | 305 | 254 | 203 | HH/003/40 |

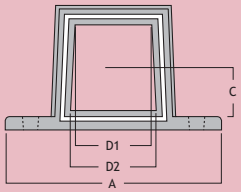
Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

# Apex Heritage – Square and Rectangular Pipes and Fittings

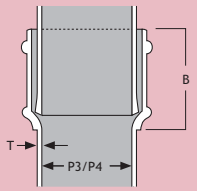


A range of traditional cast iron socketed square and rectangular rainwater pipes in a choice of 5 pipe sizes and 2 pipe lengths. There is a comprehensive range of cast iron fittings and traditional earbelt fixings. Cast iron rainwater hopper heads are also available to suit.

Note: All dimensions shown are in mm unless shown otherwise.
Pipe sizes shown are nominal.




| Sockets (Nominal) | 75 x 75 | 100 x 75 | 100 x 100 | 125 x 100 | 150 x 100 |
|---|---|---|---|---|---|
| A Width of flange | 180 | 205 | 205 | 230 | 250 |
| B Depth of socket | 83 | 83 | 108 | 108 | 108 |
| C Distance of centre to wall | 50 | 50 | 65 | 65 | 65 |
| D1 Internal dimension front | 86 | 111 | 111 | 136.5 | 162 |
| D2 Internal dimension front | 89 | 114 | 114 | 140 | 165 |




| Pipes (Nominal) | 75 x 75 | 100 x 75 | 100 x 100 | 125 x 100 | 150 x 100 |
|---|---|---|---|---|---|
| P1 External dimension front | 82.5 | 108 | 108 | 133.5 | 159 |
| P2 External dimension back | 86 | 111 | 111 | 136.5 | 162 |
| P3 Internal dimension front | 70 | 95.5 | 95.5 | 121 | 146 |
| P4 Internal dimension back | 73 | 98.5 | 98.5 | 124 | 149 |
| T Thickness | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |

Notes:

1 Dimensions of rectangular pipes are given with the width as viewed from the front first, followed by the depth, front to back- eg, 150 wide x 100 depth.

2 If ears are required, add suffix /E to the Product Code.

3 If ears are required on single branches or swan-necks, please contact our Customer Services department for further details.

4 Shoes can also be used as side shoes. If side shoes with ears are required, add one of the following suffixes to the Product Code according to its intended use:

- lefthand side shoe /LE
- righthand side shoe /RE

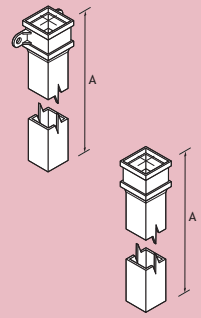
5 Should projections other than those shown be required for swan-necks, plinth offsets or side offsets, please contact Alumasc Technical Services department for further details.

6 The majority of fittings illustrated in this section are available 'From stock'. However, extended lead times might be required for some items.



Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

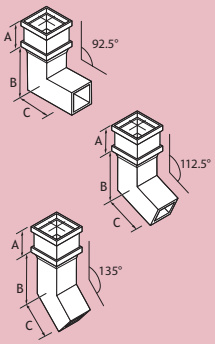
## Pipes - With and Without Ears




| Pipe Size | A | Product Code |
|---|---|---|
| 75 x 75 | 915 | P33/3FT |
| 75 x 100 | 915 | P43/3FT |
| 100 x 100 | 915 | P44/3FT |
| 125 x 100 | 915 | P54/3FT |
| 150 x 100 | 915 | P64/3FT |
| 75 x 75 | 1830 | P33/6FT |
| 75 x 100 | 1830 | P43/6FT |
| 100 x 100 | 1830 | P44/6FT |
| 125 x 100 | 1830 | P54/6FT |
| 150 x 100 | 1830 | P64/6FT |

Note: The codes given above are for pipes with ears. For pipes without ears suffix codes with /NE

## Bends - Front/Back

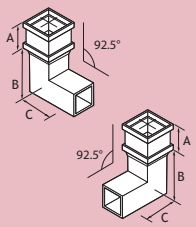


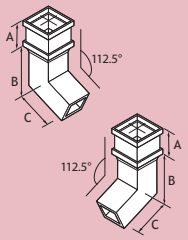

| Pipe Size | Bend | A | B | C | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | 92.5 Degree | 82 | 83 | 165 | P33/B/92B/F |
| 75 x 100 | " | 82 | 83 | 165 | P43/B/92B/F |
| 100 x 100 | " | 82 | 95 | 178 | P44/B/92B/F |
| 125 x 100 | " | 82 | 95 | 178 | P54/B/92B/F |
| 150 x 100 | " | 82 | 95 | 178 | P64/B/92B/F |
| 75 x 75 | 112.5 Degree | 82 | 60 | 143 | P33/B/112B/F |
| 75 x 100 | " | 82 | 60 | 143 | P43/B/112B/F |
| 100 x 100 | " | 82 | 70 | 152 | P44/B/112B/F |
| 125 x 100 | " | 82 | 70 | 152 | P54/B/112B/F |
| 150 x 100 | " | 82 | 70 | 152 | P64/B/112B/F |
| 75 x 75 | 135 Degree | 82 | 48 | 130 | P33/B/135B/F |
| 75 x 100 | " | 82 | 48 | 130 | P43/B/135B/F |
| 100 x 100 | " | 82 | 51 | 133 | P44/B/135B/F |
| 125 x 100 | " | 82 | 51 | 133 | P54/B/135B/F |
| 150 x 100 | " | 82 | 51 | 133 | P64/B/135B/F |

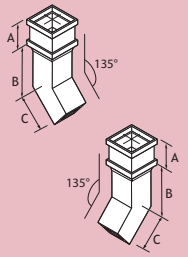
Note: If bends with ears are required, add suffix /E to the Product Code.
The Product Code for Apex Cast Iron Front/Back bends should be suffixed F for Front or B for Back bends as appropriate.

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

## Bends - Left/Right



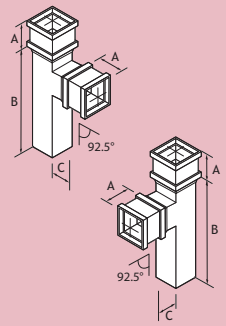



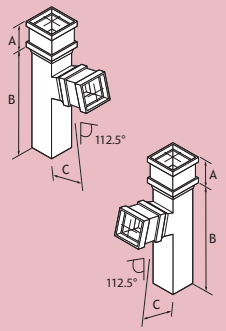

| Pipe Size | Type | Angle | A | B | C | Product Code |
|---|---|---|---|---|---|---|
| 75 x 75 | Left | 92.5 Degree | 82 | 108 | 190 | P33/B/92L |
| 75 x 100 | Left | " | 82 | 121 | 203 | P43/B/92L |
| 100 x 100 | Left | " | 82 | 121 | 203 | P44/B/92L |
| 125 x 100 | Left | " | 82 | 133 | 216 | P54/B/92L |
| 150 x 100 | Left | " | 82 | 146 | 229 | P64/B/92L |
| 75 x 75 | Right | " | 82 | 108 | 190 | P33/B/92R |
| 75 x 100 | Right | " | 82 | 121 | 203 | P43/B/92R |
| 100 x 100 | Right | " | 82 | 121 | 203 | P44/B/92R |
| 125 x 100 | Right | " | 82 | 133 | 216 | P54/B/92R |
| 150 x 100 | Right | " | 82 | 146 | 229 | P64/B/92R |
| 75 x 75 | Left | 112.5 Degree | 82 | 86 | 168 | P33/B/112L |
| 75 x 100 | Left | " | 82 | 95 | 178 | P43/B/112L |
| 100 x 100 | Left | " | 82 | 95 | 178 | P44/B/112L |
| 125 x 100 | Left | " | 82 | 105 | 187 | P54/B/112L |
| 150 x 100 | Left | " | 82 | 114 | 197 | P64/B/112L |
| 75 x 75 | Right | " | 82 | 86 | 168 | P33/B/112R |
| 75 x 100 | Right | " | 82 | 95 | 178 | P43/B/112R |
| 100 x 100 | Right | " | 82 | 95 | 178 | P44/B/112R |
| 125 x 100 | Right | " | 82 | 105 | 187 | P54/B/112R |
| 150 x 100 | Right | " | 82 | 114 | 197 | P64/B/112R |
| 75 x 75 | Left | 135 Degree | 82 | 73 | 156 | P33/B/135L |
| 75 x 100 | Left | " | 82 | 76 | 158 | P43/B/135L |
| 100 x 100 | Left | " | 82 | 76 | 158 | P44/B/135L |
| 125 x 100 | Left | " | 82 | 83 | 165 | P54/B/135L |
| 150 x 100 | Left | " | 82 | 89 | 171 | P64/B/135L |
| 75 x 75 | Right | " | 82 | 73 | 156 | P33/B/135R |
| 75 x 100 | Right | " | 82 | 76 | 158 | P43/B/135R |
| 100 x 100 | Right | " | 82 | 76 | 158 | P44/B/135R |
| 125 x 100 | Right | " | 82 | 83 | 165 | P54/B/135R |
| 150 x 100 | Right | " | 82 | 89 | 171 | P64/B/135R |

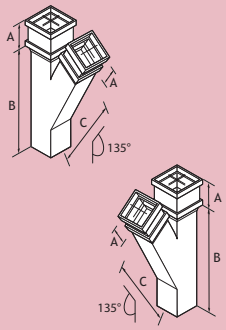
Note: If bends with ears are required, add suffix /E to the Product Code.

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

## Branches



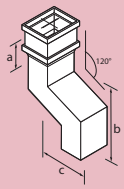




| Pipe Size | Type | Angle | A | B | C | Product Code |
|---|---|---|---|---|---|---|
| 75 x 75 | Left | 92.5 Degree | 82 | 273 | 83 | P33/BR/92L |
| 75 x 100 | Left | " | 82 | 298 | 98 | P43/BR/92L |
| 100 x 100 | Left | " | 82 | 298 | 98 | P44/BR/92L |
| 125 x 100 | Left | " | 82 | 324 | 111 | P54/BR/92L |
| 150 x 100 | Left | " | 82 | 349 | 124 | P64/BR/92L |
| 75 x 75 | Right | " | 82 | 273 | 83 | P33/BR/92R |
| 75 x 100 | Right | " | 82 | 298 | 98 | P43/BR/92R |
| 100 x 100 | Right | " | 82 | 298 | 98 | P44/BR/92R |
| 125 x 100 | Right | " | 82 | 324 | 111 | P54/BR/92R |
| 150 x 100 | Right | " | 82 | 349 | 124 | P64/BR/92R |
| 75 x 75 | Left | 112.5 Degree | 82 | 273 | 102 | P33/BR/112L |
| 75 x 100 | Left | " | 82 | 298 | 121 | P43/BR/112L |
| 100 x 100 | Left | " | 82 | 298 | 121 | P44/BR/112L |
| 125 x 100 | Left | " | 82 | 324 | 146 | P54/BR/112L |
| 150 x 100 | Left | " | 82 | 349 | 159 | P64/BR/112L |
| 75 x 75 | Right | " | 82 | 273 | 102 | P33/BR/112R |
| 75 x 100 | Right | " | 82 | 298 | 121 | P43/BR/112R |
| 100 x 100 | Right | " | 82 | 298 | 121 | P44/BR/112R |
| 125 x 100 | Right | " | 82 | 324 | 146 | P54/BR/112R |
| 150 x 100 | Right | " | 82 | 349 | 159 | P64/BR/112R |
| 75 x 75 | Left | 135 Degree | 82 | 340 | 146 | P33/BR/135L |
| 75 x 100 | Left | " | 82 | 375 | 175 | P43/BR/135L |
| 100 x 100 | Left | " | 82 | 375 | 175 | P44/BR/135L |
| 125 x 100 | Left | " | 82 | 416 | 203 | P54/BR/135L |
| 150 x 100 | Left | " | 82 | 451 | 235 | P64/BR/135L |
| 75 x 75 | Right | " | 82 | 340 | 146 | P33/BR/135R |
| 75 x 100 | Right | " | 82 | 375 | 175 | P43/BR/135R |
| 100 x 100 | Right | " | 82 | 375 | 175 | P44/BR/135R |
| 125 x 100 | Right | " | 82 | 416 | 203 | P54/BR/135R |
| 150 x 100 | Right | " | 82 | 451 | 235 | P64/BR/135R |

Note: If branches with ears are required, add suffix /E to the Product Code.

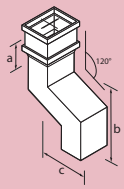
Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

## Offsets - Left/Right 75 x 75




| Pipe Size | Type | Angle | A | B | C | Product Code |
|---|---|---|---|---|---|---|
| 75 x 75 | Left | 112.5 Degree | 82 | 286 | 76 | P33/OF/03L |
| 75 x 75 | Left | " | 82 | 302 | 114 | P33/OF/04L |
| 75 x 75 | Left | " | 82 | 317 | 152 | P33/OF/06L |
| 75 x 75 | Left | " | 82 | 349 | 228 | P33/OF/09L |
| 75 x 75 | Left | " | 82 | 381 | 305 | P33/OF/12L |
| 75 x 75 | Left | " | 82 | 413 | 381 | P33/OF/15L |
| 75 x 75 | Left | " | 82 | 444 | 457 | P33/OF/18L |
| 75 x 75 | Right | " | 82 | 286 | 76 | P33/OF/03R |
| 75 x 75 | Right | " | 82 | 302 | 114 | P33/OF/04R |
| 75 x 75 | Right | " | 82 | 317 | 152 | P33/OF/06R |
| 75 x 75 | Right | " | 82 | 349 | 228 | P33/OF/09R |
| 75 x 75 | Right | " | 82 | 381 | 305 | P33/OF/12R |
| 75 x 75 | Right | " | 82 | 413 | 381 | P33/OF/15R |
| 75 x 75 | Right | " | 82 | 444 | 457 | P33/OF/18R |
| 75 x 75 | Swan Neck | 120 Degree | 82 | 286 | 76 | P33/OF/03 |
| 75 x 75 | Swan Neck | " | 82 | 302 | 114 | P33/OF/04 |
| 75 x 75 | Swan Neck | " | 82 | 317 | 152 | P33/OF/06 |
| 75 x 75 | Swan Neck | " | 82 | 349 | 228 | P33/OF/09 |
| 75 x 75 | Swan Neck | " | 82 | 381 | 305 | P33/OF/12 |
| 75 x 75 | Swan Neck | " | 82 | 413 | 381 | P33/OF/15 |
| 75 x 75 | Swan Neck | " | 82 | 444 | 457 | P33/OF/18 |
| 75 x 75 | Plinth Offset | 135 Degree | 82 | 317 | 63 | P33/OF/02P |
| 75 x 75 | Plinth Offset | " | 82 | 330 | 76 | P33/OF/03P |
| 75 x 75 | Plinth Offset | " | 82 | 368 | 114 | P33/OF/04P |
| 75 x 75 | Plinth Offset | " | 82 | - | 152 | P33/OF/06P |

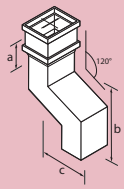
## Offsets - Left/Right 100 x 75




| Pipe Size | Type | Angle | A | B | C | Product Code |
|---|---|---|---|---|---|---|
| 100 x 75 | Left | 112.5 Degree | 82 | 302 | 76 | P43/OF/03L |
| 100 x 75 | Left | " | 82 | 317 | 114 | P43/OF/04L |
| 100 x 75 | Left | " | 82 | 333 | 152 | P43/OF/06L |
| 100 x 75 | Left | " | 82 | 365 | 228 | P43/OF/09L |
| 100 x 75 | Left | " | 82 | 397 | 305 | P43/OF/12L |
| 100 x 75 | Left | " | 82 | 429 | 381 | P43/OF/15L |
| 100 x 75 | Left | " | 82 | 460 | 457 | P43/OF/18L |
| 100 x 75 | Right | " | 82 | 302 | 76 | P43/OF/03R |
| 100 x 75 | Right | " | 82 | 317 | 114 | P43/OF/04R |
| 100 x 75 | Right | " | 82 | 333 | 152 | P43/OF/06R |
| 100 x 75 | Right | " | 82 | 365 | 228 | P43/OF/09R |
| 100 x 75 | Right | " | 82 | 379 | 305 | P43/OF/12R |
| 100 x 75 | Right | " | 82 | 429 | 381 | P43/OF/15R |
| 100 x 75 | Right | " | 82 | 460 | 457 | P43/OF/18R |
| 100 x 75 | Swan Neck | 120 Degree | 82 | 302 | 76 | P43/OF/03 |
| 100 x 75 | Swan Neck | " | 82 | 317 | 114 | P43/OF/04 |
| 100 x 75 | Swan Neck | " | 82 | 333 | 152 | P43/OF/06 |
| 100 x 75 | Swan Neck | " | 82 | 365 | 228 | P43/OF/09 |
| 100 x 75 | Swan Neck | " | 82 | 397 | 305 | P43/OF/12 |
| 100 x 75 | Swan Neck | " | 82 | 429 | 381 | P43/OF/15 |
| 100 x 75 | Swan Neck | " | 82 | 460 | 457 | P43/OF/18 |
| 100 x 75 | Plinth Offset | 135 Degree | 82 | 317 | 63 | P43/OF/02P |
| 100 x 75 | Plinth Offset | " | 82 | 330 | 76 | P43/OF/03P |
| 100 x 75 | Plinth Offset | " | 82 | 368 | 114 | P43/OF/04P |
| 100 x 75 | Plinth Offset | " | 82 | 406 | 152 | P43/OF/06P |

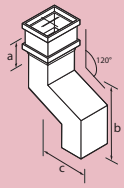
Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

## Offsets - Left/Right 100 x 100




| Pipe Size | Type | Angle | A | B | C | Product Code |
|---|---|---|---|---|---|---|
| 100 x 100 | Left | 112.5 Degree | 82 | 302 | 76 | P44/OF/03L |
| 100 x 100 | Left | " | 82 | 317 | 114 | P44/OF/04L |
| 100 x 100 | Left | " | 82 | 333 | 152 | P44/OF/06L |
| 100 x 100 | Left | " | 82 | 365 | 228 | P44/OF/09L |
| 100 x 100 | Left | " | 82 | 397 | 305 | P44/OF/12L |
| 100 x 100 | Left | " | 82 | 429 | 381 | P44/OF/15L |
| 100 x 100 | Left | " | 82 | 460 | 457 | P44/OF/18L |
| 100 x 100 | Right | " | 82 | 302 | 76 | P44/OF/03R |
| 100 x 100 | Right | " | 82 | 317 | 114 | P44/OF/04R |
| 100 x 100 | Right | " | 82 | 333 | 152 | P44/OF/06R |
| 100 x 100 | Right | " | 82 | 365 | 228 | P44/OF/09R |
| 100 x 100 | Right | " | 82 | 397 | 305 | P44/OF/12R |
| 100 x 100 | Right | " | 82 | 429 | 381 | P44/OF/15R |
| 100 x 100 | Right | " | 82 | 460 | 457 | P44/OF/18R |
| 100 x 100 | Swan Neck | 120 Degree | 82 | 302 | 76 | P44/OF/03 |
| 100 x 100 | Swan Neck | " | 82 | 317 | 114 | P44/OF/04 |
| 100 x 100 | Swan Neck | " | 82 | 333 | 152 | P44/OF/06 |
| 100 x 100 | Swan Neck | " | 82 | 365 | 228 | P44/OF/09 |
| 100 x 100 | Swan Neck | " | 82 | 397 | 305 | P44/OF/12 |
| 100 x 100 | Swan Neck | " | 82 | 429 | 381 | P44/OF/15 |
| 100 x 100 | Swan Neck | " | 82 | 460 | 457 | P44/OF/18 |
| 100 x 100 | Plinth Offset | 135 Degree | 82 | 324 | 63 | P44/OF/02P |
| 100 x 100 | Plinth Offset | " | 82 | 340 | 76 | P44/OF/03P |
| 100 x 100 | Plinth Offset | " | 82 | 375 | 114 | P44/OF/04P |
| 100 x 100 | Plinth Offset | " | 82 | 416 | 152 | P44/OF/06P |

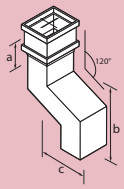
## Offsets - Left/Right 125 x 100




| Pipe Size | Type | Angle | A | B | C | Product Code |
|---|---|---|---|---|---|---|
| 125 x 100 | Left | 112.5 Degree | 82 | 317 | 76 | P54/OF/03L |
| 125 x 100 | Left | " | 82 | 333 | 114 | P54/OF/04L |
| 125 x 100 | Left | " | 82 | 349 | 152 | P54/OF/06L |
| 125 x 100 | Left | " | 82 | 381 | 228 | P54/OF/09L |
| 125 x 100 | Left | " | 82 | 413 | 305 | P54/OF/12L |
| 125 x 100 | Left | " | 82 | 444 | 381 | P54/OF/15L |
| 125 x 100 | Left | " | 82 | 476 | 457 | P54/OF/18L |
| 125 x 100 | Right | " | 82 | 317 | 76 | P54/OF/03R |
| 125 x 100 | Right | " | 82 | 333 | 114 | P54/OF/04R |
| 125 x 100 | Right | " | 82 | 349 | 152 | P54/OF/06R |
| 125 x 100 | Right | " | 82 | 381 | 228 | P54/OF/09R |
| 125 x 100 | Right | " | 82 | 413 | 305 | P54/OF/12R |
| 125 x 100 | Right | " | 82 | 444 | 381 | P54/OF/15R |
| 125 x 100 | Right | " | 82 | 476 | 457 | P54/OF/18R |
| 125 x 100 | Swan Neck | 120 Degree | 82 | 317 | 76 | P54/OF/03 |
| 125 x 100 | Swan Neck | " | 82 | 333 | 114 | P54/OF/04 |
| 125 x 100 | Swan Neck | " | 82 | 349 | 152 | P54/OF/06 |
| 125 x 100 | Swan Neck | " | 82 | 381 | 228 | P54/OF/09 |
| 125 x 100 | Swan Neck | " | 82 | 413 | 305 | P54/OF/12 |
| 125 x 100 | Swan Neck | " | 82 | 444 | 381 | P54/OF/15 |
| 125 x 100 | Swan Neck | " | 82 | 476 | 457 | P54/OF/18 |
| 125 x 100 | Plinth Offset | 135 Degree | 82 | 324 | 63 | P54/OF/02P |
| 125 x 100 | Plinth Offset | " | 82 | 340 | 76 | P54/OF/03P |
| 125 x 100 | Plinth Offset | " | 82 | 375 | 114 | P54/OF/04P |
| 125 x 100 | Plinth Offset | " | 82 | 416 | 152 | P54/OF/06P |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

## Offsets - Left/Right 150 x 100



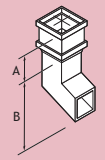

| Pipe Size | Type | Angle | A | B | C | Product Code |
|---|---|---|---|---|---|---|
| 150 x 100 | Left | 112.5 Degree | 82 | 337 | 76 | P64/OF/03L |
| 150 x 100 | Left | " | 82 | 352 | 114 | P64/OF/04L |
| 150 x 100 | Left | " | 82 | 368 | 152 | P64/OF/06L |
| 150 x 100 | Left | " | 82 | 400 | 228 | P64/OF/09L |
| 150 x 100 | Left | " | 82 | 432 | 305 | P64/OF/12L |
| 150 x 100 | Left | " | 82 | 464 | 381 | P64/OF/15L |
| 150 x 100 | Left | " | 82 | 495 | 457 | P64/OF/18L |
| 150 x 100 | Right | " | 82 | 337 | 76 | P64/OF/03R |
| 150 x 100 | Right | " | 82 | 352 | 114 | P64/OF/04R |
| 150 x 100 | Right | " | 82 | 368 | 152 | P64/OF/06R |
| 150 x 100 | Right | " | 82 | 400 | 228 | P64/OF/09R |
| 150 x 100 | Right | " | 82 | 432 | 305 | P64/OF/12R |
| 150 x 100 | Right | " | 82 | 464 | 381 | P64/OF/15R |
| 150 x 100 | Right | " | 82 | 495 | 457 | P64/OF/18R |
| 150 x 100 | Swan Neck | 120 Degree | 82 | 337 | 76 | P64/OF/03 |
| 150 x 100 | Swan Neck | " | 82 | 352 | 114 | P64/OF/04 |
| 150 x 100 | Swan Neck | " | 82 | 368 | 152 | P64/OF/06 |
| 150 x 100 | Swan Neck | " | 82 | 400 | 228 | P64/OF/09 |
| 150 x 100 | Swan Neck | " | 82 | 432 | 305 | P64/OF/12 |
| 150 x 100 | Swan Neck | " | 82 | 464 | 381 | P64/OF/15 |
| 150 x 100 | Swan Neck | " | 82 | 495 | 457 | P64/OF/18 |
| 150 x 100 | Plinth Offset | 135 Degree | 82 | 324 | 63 | P64/OF/02P |
| 150 x 100 | Plinth Offset | " | 82 | 340 | 76 | P64/OF/03P |
| 150 x 100 | Plinth Offset | " | 82 | 375 | 114 | P64/OF/04P |
| 150 x 100 | Plinth Offset | " | 82 | 416 | 152 | P64/OF/06P |

Note: If ears are required on 112.5° and 135° offsets, add suffix /E to the Product Code.

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.

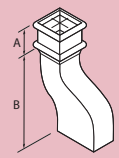
# Apex Heritage – Square and Rectangular Pipes and Fittings

## Shoes



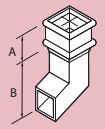

| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 75 x 75 | 82 | 159 | P33/SH |
| 100 x 75 | 82 | 159 | P43/SH |
| 100 x 100 | 82 | 184 | P44/SH |
| 125 x 100 | 82 | 184 | P54/SH |
| 150 x 100 | 82 | 184 | P64/SH |

## Anti Splash Shoes




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 75 x 75 | 82 | 171 | P33/SH/A |
| 100 x 75 | 82 | 171 | P43/SH/A |
| 100 x 100 | 82 | 197 | P44/SH/A |
| 125 x 100 | 82 | 197 | P54/SH/A |
| 150 x 100 | 82 | 197 | P64/SH/A |

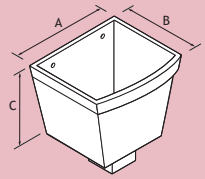
## Corner Shoes




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 75 x 75 | 82 | 187 | P33/SH/C |
| 100 x 100 | 82 | 229 | P44/SH/C |

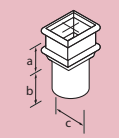
Note: Shoes can also be used as side shoes.
Add one of the following suffixes to the Product Code according to its intended use:
left hand side shoe /L right hand side shoe /R. If ears are required, add suffix /E to the Product Code.

## Rainwater Heads



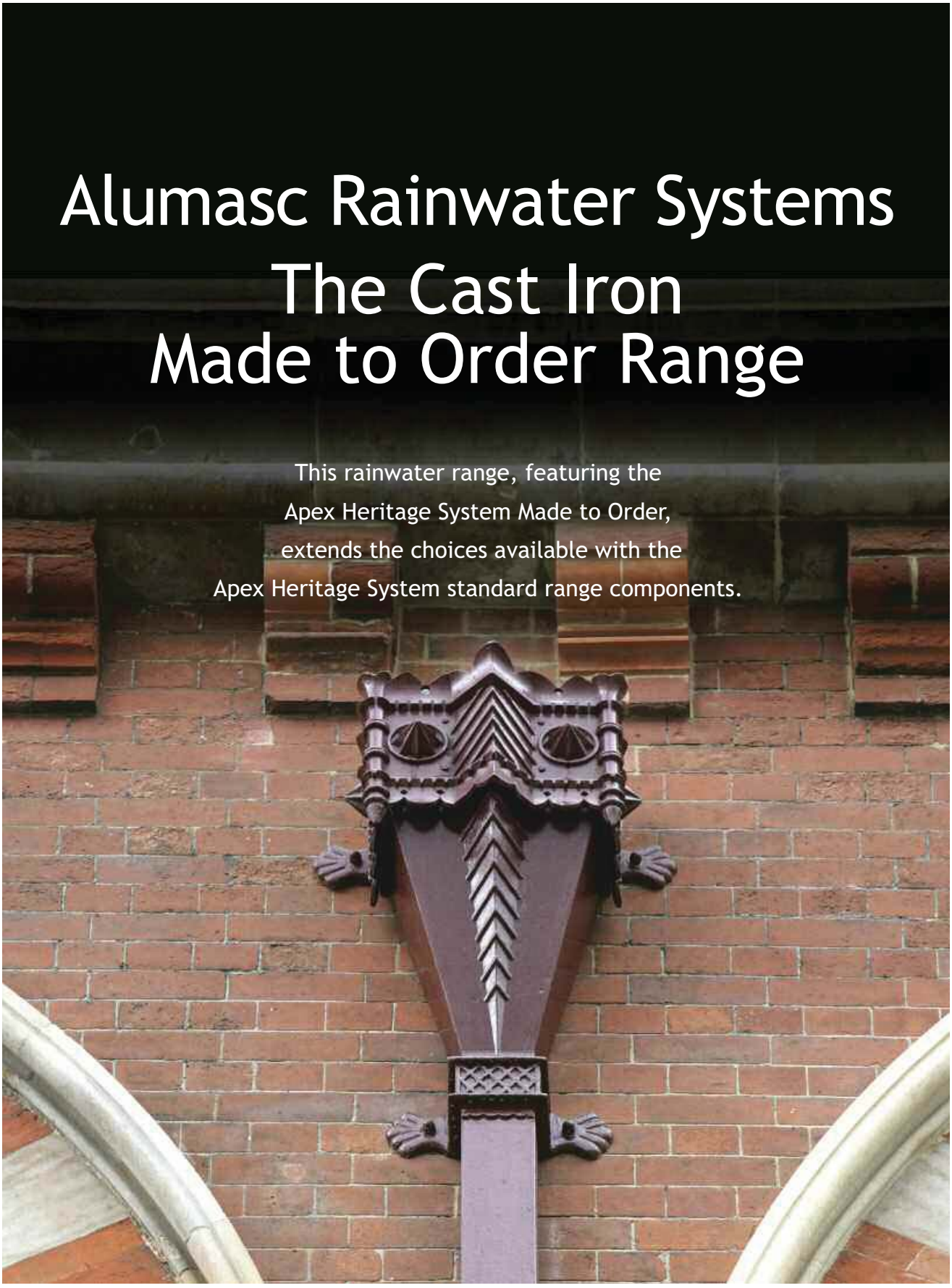

| Pipe Size | Type | A | B | C | Product Code |
|---|---|---|---|---|---|
| 75 x 75 | Small Rectangular | 254 | 178 | 178 | HH/002/33 |
| 100 x 75 | " | 254 | 178 | 178 | HH/002/43 |
| 100 x 100 | " | 254 | 178 | 178 | HH/002/44 |
| 75 x 75 | Large Rectangular | 305 | 250 | 250 | HH/003/33 |
| 100 x 75 | " | 305 | 254 | 302 | HH/003/43 |
| 100 x 100 | " | 305 | 254 | 302 | HH/003/44 |
| 125 x 100 | " | 305 | 254 | 302 | HH/003/54 |

## Square to Circular Connectors




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 x 75 | 82 | 95 | 108 | P33/C |
| 100 x 75 | 82 | 95 | 108 | P43/C |
| 100 x 100 | 82 | 95 | 108 | P44/C |
| 125 x 100 | 82 | 95 | 108 | P54/C |
| 150 x 100 | 82 | 95 | 108 | P64/C |

Note: Products are available with an oxide primed coating or with a certified factory painted finish.
Product Codes in the tables refer to primed products. For Painted products add the suffix /PA to the Product Code reference.


Alumasc Rainwater Systems
The Cast Iron
Made to Order Range
This rainwater range, featuring the
Apex Heritage System Made to Order,
extends the choices available with the
Apex Heritage System standard range components.

# Made to Order Cast Iron Rainwater Range – Introduction

Alumasc Rainwater's Made-to-Order Cast Iron range is specifically designed to yield all of the benefits associated with the standard Apex Heritage range, satisfying all the style options for new buildings whilst addressing the challenges of exact replacement for refurbishment and restoration.



**Gutters**



**Hoppers**



**Downpipes**



**Accessories**

## Design Flexibility

Alumasc's history of designing and supplying engineered rainwater systems is a sign of its ability to develop patterns for the sand casting of products that are tailored to individual buildings' specific needs.

The Apex Heritage Made-to-Order range offers the specifier a considerable choice of readily available plain and ornamental pipes, rainwater heads and gutter profiles, including radius gutters in traditional sand cast iron.

A variety of different designs are possible for decorative earbelts and additional enrichments that can be added onto rainwater heads.

Where an existing installation has to be replaced, in particular on listed building, Alumasc can provide new castings to match the existing design. Where gutters are required to follow a particular roof radius, patterns can be engineered from dimensions or existing gutter installations to yield a gutter that can be installed to suit the roof parameters. Alumasc is happy to offer technical advice and quotations for additional designs where these might be required.

## Cast Iron Specialist

To further support Alumasc Rainwater product offer and technical support service we now have a Cast Iron Specialist in the technical team who is concentrating closely on bespoke Cast Iron rainwater solutions, providing design advice and technical support to Architects, Specifiers and Contractors.

**To discuss you project requirements please contact the**

**Cast Iron Specialist**

**on**

**Tel: 01536 720 523**

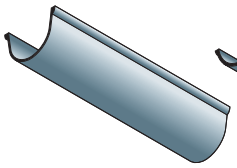


# Apex Heritage – Made to Order Gutters

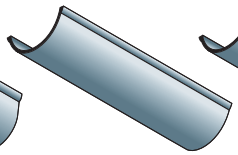
## Half Round Gutters

| Gutter Size | Type | Product Code |
|---|---|---|
| 127 x 140 | Deep, beaded, collar | SG22/6FT |
| 152 x 70 | Beaded, collar | SG25/6FT |
| 200 x 81 | Deep | SG77/6FT |

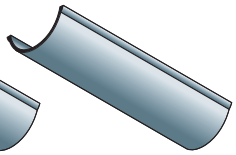
SG22/6FT



SG25/6FT



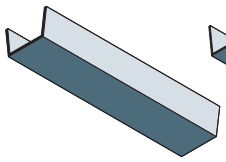
SG77/6FT



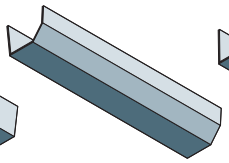
## Box Gutters

| Gutter Size | Type | Product Code |
|---|---|---|
| 114 x 76 | Collar | SG31/6FT |
| 114 x 89 | Right hand spigot | SG20/6FT |
| 140 x 102 | Right hand collar | SG26/6FT |
| 140 x 102 | Right hand spigot | SG08/6FT |
| 152 x 140 | Right hand spigot | SG09/6FT |

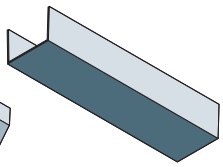
SG31/6FT



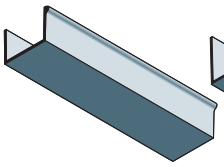
SG20/6FT



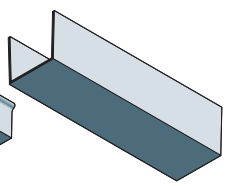
SG26/6FT



SG08/6FT



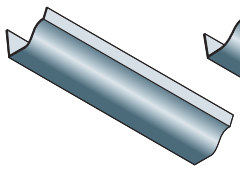
SG09/6FT



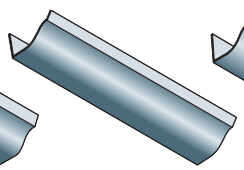
## Ogee Gutters

| Gutter Size | Type | Product Code |
|---|---|---|
| 114 x 76 | Right hand spigot | SG17/6FT |
| 127 x 70 | Left hand collar | SG29/6FT |
| 127 x 76 | Left hand collar | SG13/6FT |
| 127 x 102 | Right hand spigot | SG18/6FT |
| 152 x 102 | Right hand spigot | SG19/6FT |

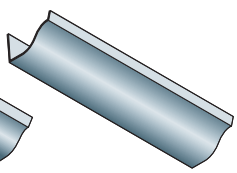
SG17/6FT



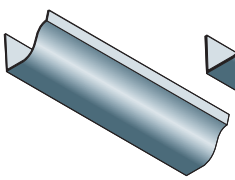
SG29/6FT



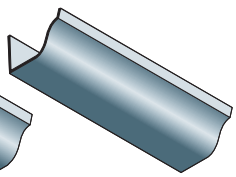
SG13/6FT



SG18/6FT



SG19/6FT

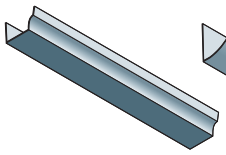


Gutters can be made to order in any shape — half round, box, ogee or moulded. Radiused gutters can also be produced. All are available with fittings to accommodate any situation: 90° external or internal angle, running outlet, union clip or LH stopend (inside gutter).

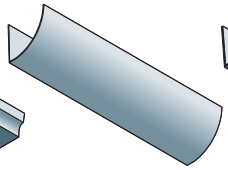
## Moulded Gutters

| Gutter Size | Type | Product Code |
|---|---|---|
| 133 x 82 | Right hand spigot | SG39/6FT |
| 165 x 152 | Left hand spigot | SG37/6FT |
| 178 x 152 | Right hand spigot | SG05/6FT |
| 190 x 89 | Right hand spigot | SG07/6FT |
| 203 x 127 | Right hand collar | SG10/6FT |
| 203 x 127 | Right hand spigot | SG30/6FT |
| 203 x 152 | Right hand spigot | SG12/6FT |
| 229 x 152 | Right hand spigot | SG03/6FT |
| 260 x 146 | Right hand spigot | SG14/6FT |
| 305 x 152 | Left hand spigot | SG15/6FT |

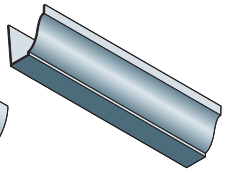
SG39/6FT



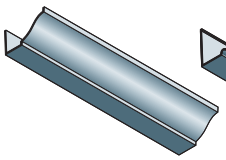
SG37/6FT



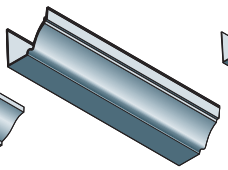
SG05/6FT



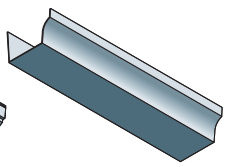
SG07/6FT



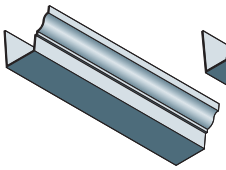
SG10/6FT



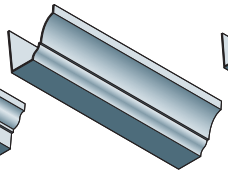
SG30/6FT



SG12/6FT



SG03/6FT



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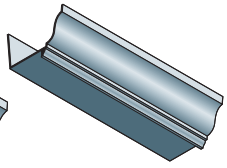

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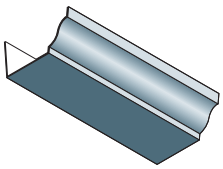


Please contact us for more information on made-to-order gutters.

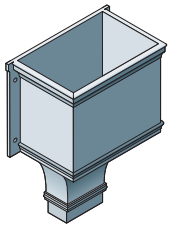
# Apex Heritage – Made to Order Rainwater Heads

This page shows the Apex Heritage made to order range of decorative rainwater heads. These products are readily available because Alumasc holds the patterns and can produce the items to order.



## Made To Order Rainwater Heads

Ref HH/011



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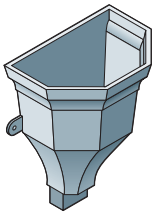

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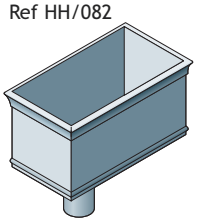

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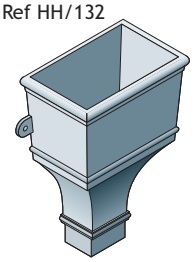

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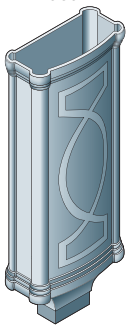

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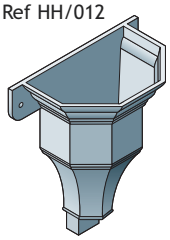

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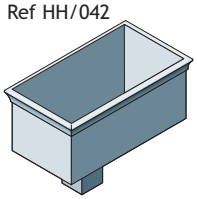

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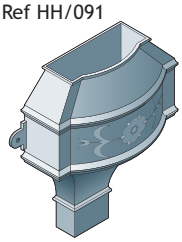

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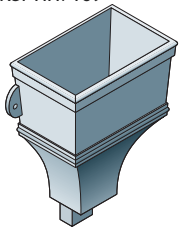

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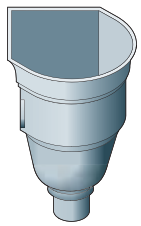

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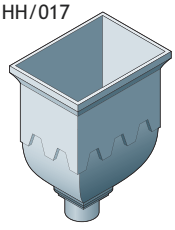

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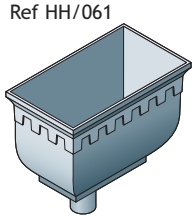

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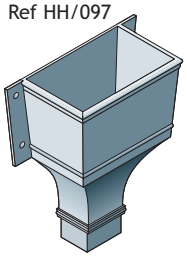

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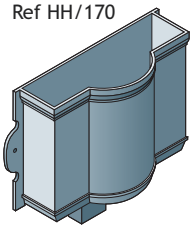

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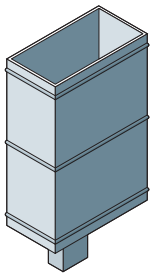

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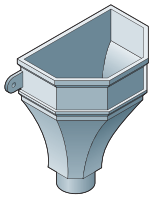

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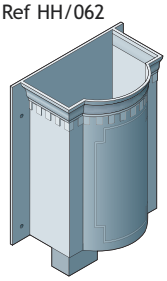

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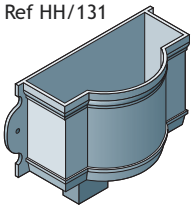

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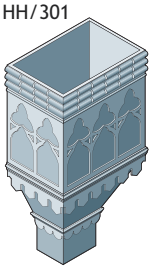


# Apex Heritage – Made to Order Rainwater Heads





The number of available made-to-order designs increases as additional patterns are created for new commissions.

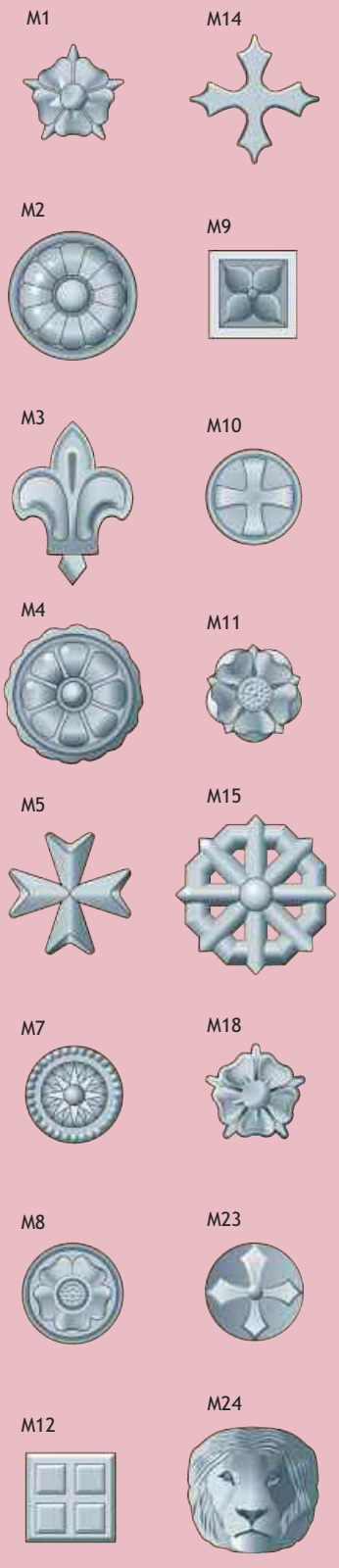
A variety of different designs is possible for decorative earbelts.

Additional enrichments can be incorporated into the rainwater heads shown.

Table Notes:
1 Overall width of rainwater head
2 Height of rainwater head excluding spigot

## Made To Order Rainwater Heads

| Outlet Sizes (mm) - up to | | Width[1] | Height[2] | Product Code |
|---|---|---|---|---|
| Circular | Square & Rectangular | | | |
| 102 dia | 127 x 102 | 444 | 368 | HH/011 |
| 102 dia | 102 x 102 | 356 | 305 | HH/012 |
| 76 dia | N/A | 267 | 260 | HH/017 |
| 152 dia | 152 x 102 | 451 | 380 | HH/034 |
| 102 dia | 102 x 102 | 2 shapes | 305 | HH/040 |
| 152 dia | 152 x 102 | 3 sizes | 152 | HH/042 |
| 102 dia | 127 x 102 | 457 | 165 | HH/061 |
| 102 dia | 127 x 102 | 476 | 610 | HH/062 |
| 152 dia | 152 x 102 | 3 sizes | 229 | HH/082 |
| 76 dia | 76 x 76 | 356 | 343 | HH/091 |
| 102 dia | 102 x 102 | 2 shapes | 292 | HH/097 |
| 127 dia | 127 x 102 | 476 | 210 | HH/131 |
| 127 dia | 127 x 102 | 381 | 406 | HH/132 |
| N/A | 102 x 102 | 298 | 210 | HH/169 |
| 102 dia | 102 x 2 | 419 | 152 | HH/170 |
| N/A | 76 x 76 | 250 | 381 | HH/301 |
| N/A | 102 x 76 | 202 | 330 | HH/303 |
| 102 dia | N/A | 368 | - | HH/304 |
| N/A | 102 x 76 | 317 | 451 | HH/305 |
| N/A | 102 x 76 | 762 | 451 | HH/306 |

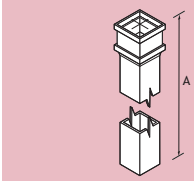



**Rainwater Head Enrichments**

# Apex Heritage – Made to Order Pipes and Holderbats



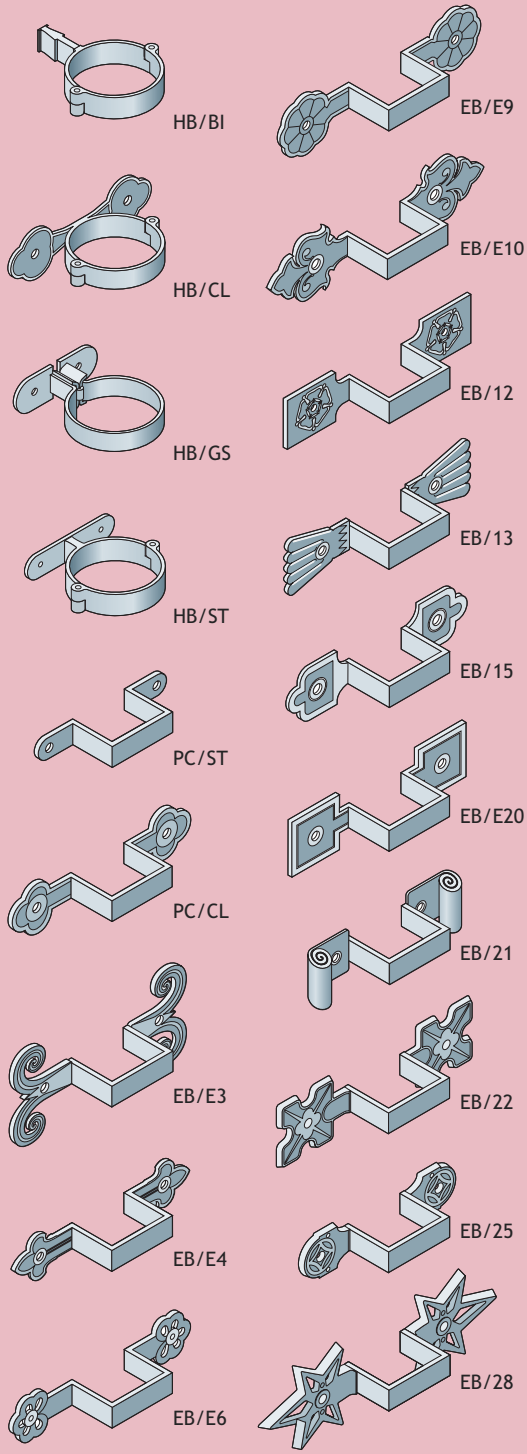
## Made to Order Downpipes




| Pipe Size | A | Product Code |
|---|---|---|
| 102 x 76 | 1830 | SP10 |
| 102 x 76 | 1830 | SP13 |

Note: All dimensions shown are in mm.






### Note

Bracketry is available for all pipe sizes.
Order codes should be prefixed by one of the following pipe types/sizes:
Round Pipes: P25, P30, P40
Square/Rectangular Pipes: P33, P43, P44, P54, P64
For example, P33/EB/E6 –
For the relevant pipe tables, see pages 121-123 (Round Pipes) and 125-131 (Square/Rectangular Pipes).
Contact Alumasc for further information.

# Alumasc Rainwater Systems Cast Iron Range Installation Procedures

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

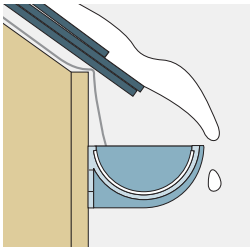


# Cast Iron Rainwater Installation – Introduction

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.

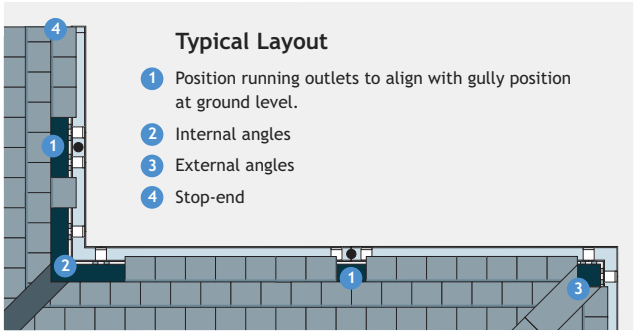


Fix brackets so as to position the gutter centrally and as close below the roof edge as possible, taking into consideration locality and roof slope finish.
If there is a risk of sliding snow, adjust the bracket positions to prevent snow hitting the front of the gutter. Extra fixings, brackets and snowboards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

Were 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.

### Health and Safety

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

### 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.

### 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.

## Care and Maintenance

### 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. Sand-cast iron is an inherently durable material, and with a reasonable standard of maintenance, an installation should have a life of at least 40 years.

### Ladders

Even with a well fixed installation, 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.

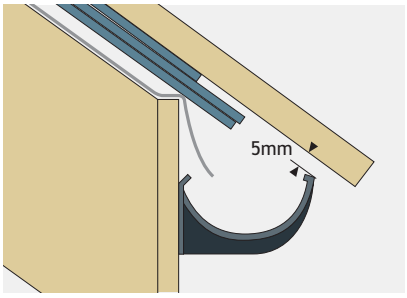
### Other maintenance operations

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

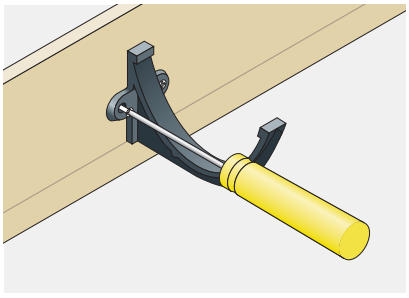
Please contact Alumasc Technical Services for further information.

# Installation – Apex Heritage Gutters

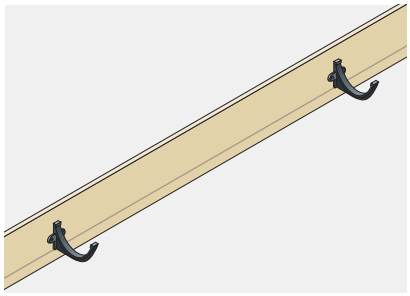
Apex Heritage gutters are available in a choice of four profiles with a range of brackets to accommodate all types of eaves condition. Each profile range can be connected to cast iron pipework systems in either round, square or rectangular. Assembly and installation of each profile range must be considered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



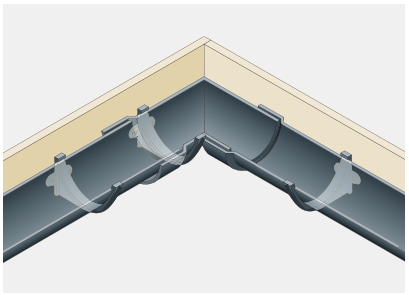

1. Using a straight edge or ruler, shim gutter brackets with 5mm clearance so that the last roof tile or slate will align with the mid point of the gutter.



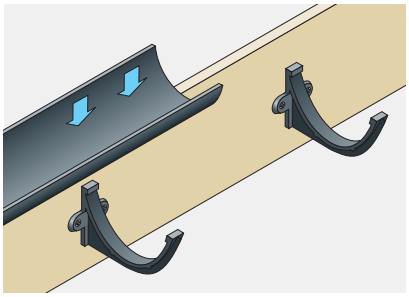
2. Generally, position brackets at 915mm centres allowing additional brackets on either side of where gutter joints will occur.



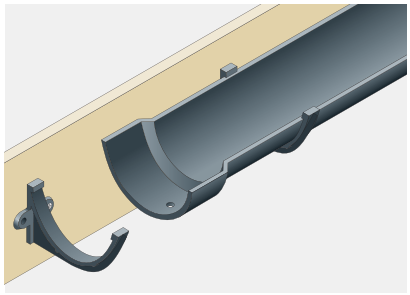
3. Use a string line to set out brackets to a fall of 1:600 to 1:350 (max) or if not possible, level.



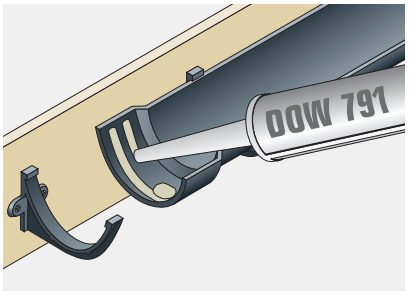
4. Plumb line outlets with gullies at ground level. Position angles, allowing an additional bracket adjacent to the joint with the gutter length.



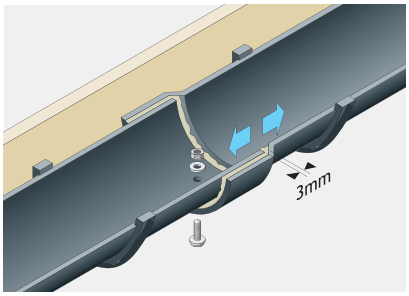
5. Lower the gutter onto the brackets ensuring sufficient clearance for the gutter joint. Clip gutter into bracket.



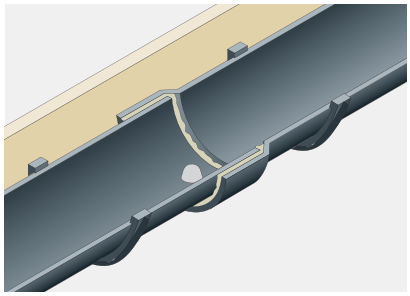
6. Cast gutters overlap at the joint with a spigot and socket. Thoroughly clean and degrease the ends that must be jointed.




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



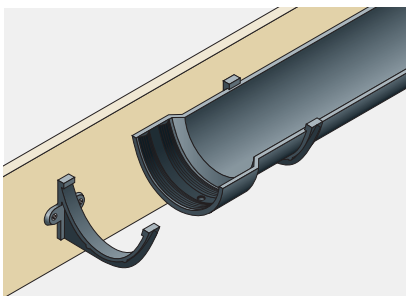

8. Insert the spigot end of the gutter allowing a 3mm expansion gap. Secure joint using bright zinc plated, mild steel M6 x 25mm nut, bolt and washer provided. (Bolt head preferably to underside).

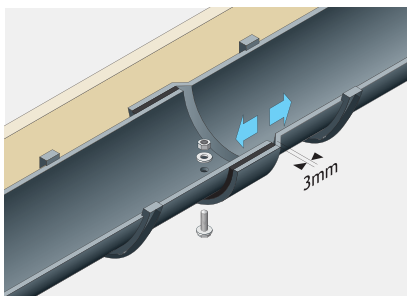


9. Finally, cone-off the exposed bolt stud and nut inside the gutter with a generous application of silicone sealant. Tool off excess silicone around the joint and from external surfaces.

### 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.



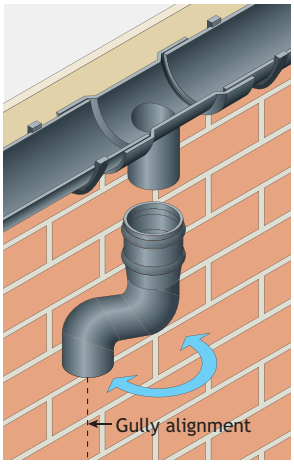


# Installation – Apex Heritage Rainwater Pipes

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.

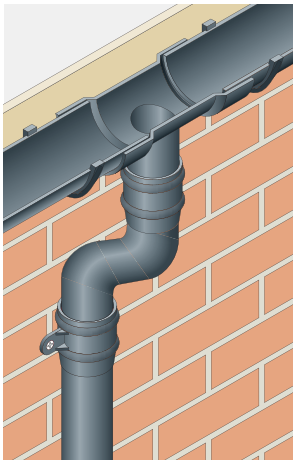
### Pipe Alignment




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.

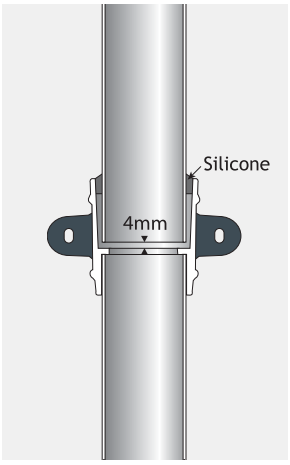
### Outlets and Offsets



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

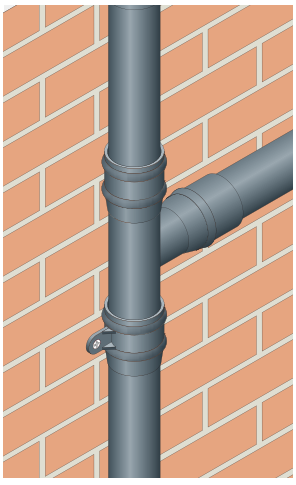
### General Installation Sequence

- 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

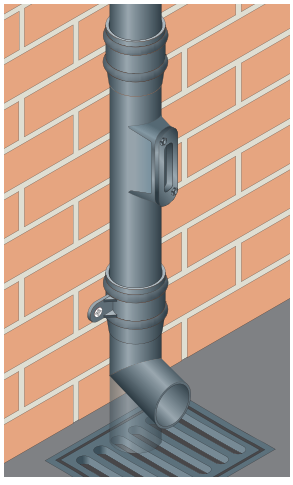
For durable all weather seals and best results, Alumasc recommend the use of DOW 791 silicone sealant.

### Bends and Branches



Bends and branches are secured into the pipe socket.

### Shoes and Access Pipes

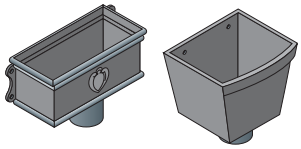


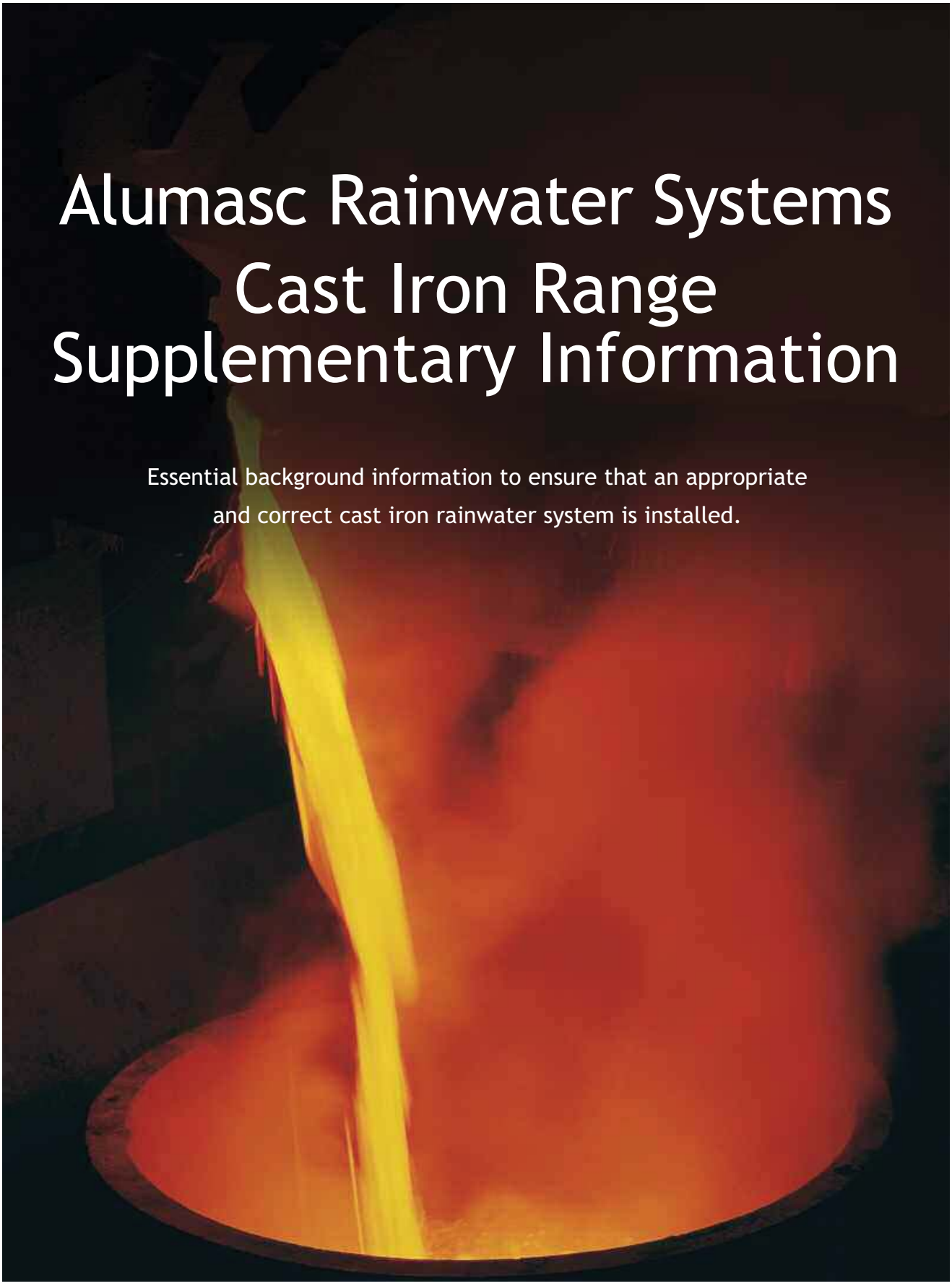
At ground level rainwater pipes can terminate with a shoe for free discharge over a gully or be directly connected into the gully.

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

### Rainwater Heads

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





# Alumasc Rainwater Systems Cast Iron Range Supplementary Information

Essential background information to ensure that an appropriate and correct cast iron rainwater system is installed.

# Accessories

## Touch Up Paint

| RAL Code | Description | Size | Product Code |
|---|---|---|---|
| RAL 3009 | Oxide Red | 125ml | TUPCI/RAL3009/125 |
| RAL 3020 | Traffic Red | 125ml | TUPCI/RAL3020/125 |
| RAL 5010 | Flower Blue | 125ml | TUPCI/RAL5010/125 |
| RAL 6005 | Moss Green | 125ml | TUPCI/RAL6005/125 |
| RAL 7016 | Anthracite Grey | 125ml | TUPCI/RAL7016/125 |
| RAL 8015 | Chestnut Brown | 125ml | TUPCI/RAL8015/125 |
| RAL 9005 | Black | 125ml | TUPCI/RAL9005/125 |
| RAL 9016 | White | 125ml | TUPCI/RAL9016/125 |

Note: The colours reproduced on this page are for general guidance only.

## Hydrostrip Sealing System

The Hydrostrip system comprises preformed rubber sealing strips that are quick and easy to install.

Hydrostrip is supplied complete with screws, nuts and installation instructions in kits containing 20 jointing sets. Hydrostrip is not suited for use with Beaded Half Round gutters.

With Hydrostrip, joints can be made in damp conditions and can be overpainted immediately.

For half round gutters **only**.




## Silicone Sealant



| Type | Colour | Size | Product Code |
|---|---|---|---|
| Dow Corning 797 | White | 310ml Cartridge | SS991558 |
| Dow Corning 797 | Grey | 310ml Cartridge | SS991559 |
| Dow Corning 797 | Bronze | 310ml Cartridge | SS991560 |
| Dow Corning 797 | Black | 310ml Cartridge | SS991561 |
| Dow Corning 797 | Limestone | 310ml Cartridge | SS991562 |

## Fixings



| Type | Size | Notes | Product Code |
|---|---|---|---|
| Nut/Bolt/Washer | M6 x 25mm | Bright zinc plated mild steel | NBW 630310 |
| 3” Pipe Nail | M8 x 75mm | Bright zinc plated mild steel | NAIL30 |
| 4” Pipe Nail | M8 x 100mm | Bright zinc plated mild steel | NAIL40 |
| 3” Coach Screw | M8 x 75mm | Hardened steel zinc plated | COACH30 |
| 4” Coach Screw | M8 x 100mm | Hardened steel zinc plated | COACH40 |
| Coach Screw Cap | M8 dia | Black plastic | COACHCAP |
| Countersunk woodscrew | No.12 x 1.5” | To fix rafter arms to GX Brackets | ZNBW969041 |
| Roundhead woodscrew | No.12 x 1.5” with Washer | To fix Apex Heritage Fascia Brackets or for ‘direct fix’ Gutter range | NBW 630362 |
| Roundhead woodscrew | No.12 x 2” with Washer | To fix pipe sockets with ears or pipe clips | NBW 630361 |

# Rainwater System Design

Alumasc Technical Services is a fully experienced team of Rainwater specialists who use the latest CAD technology and calculation tools to provide an unrivalled support service to Architects, Designers and Contractors.

## The Alumasc Rainwater Drainage Design Service

Alumasc Technical Services use dedicated design software in conjunction with the requirements of *BS EN 12056:2000: Gravity drainage systems inside buildings - Part 3* to calculate the most appropriate Alumasc rainwater system to suit project requirements.

The gutter flow software automatically checks the capacity of downpipes used and suggests the minimum size to which downpipes can be sized. Contact Alumasc for further information.

## Calculation Criteria

Calculation of the most efficient drainage solution takes into consideration the following criteria:

- Catchment area
- Local rainfall intensity
- Building life and safety factor
- Size and flow rate of gutters
- Frequency and size of outlets and downpipes

## Sizing of Gutters and Downpipes

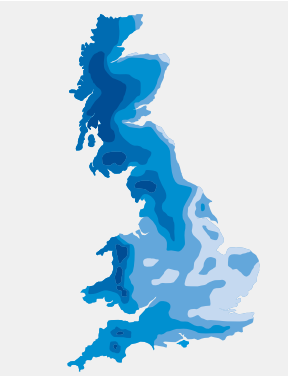
The level of rainfall a given roof drainage system should cope with is based on the position of the gutter, the potential use of the building and its projected lifespan. All true eaves gutters (external) are designed using a 1 year storm event. This is generally accepted because overflow from an external eaves gutter will fall clear of the building, which is not normally a problem. Any gutter which is classed internal, even if it is at the eaves, should be designed for an intensity based on the building life and a suitable factor of safety.

This factor will vary from 1.5 for conventional buildings to 4.5 for very important structures. For most buildings a 60 year life and safety factor of 1.5 would be the most suitable (90 year protection life).

All the parameters of flow calculations cannot be captured using a single formula. The guide below provides a basic method for calculating flow requirements. For accurate project specific specification advice on rainwater flow calculations contact Alumasc Technical Services.

### Step 1

**Geographical Location and Rainfall Intensity Maps**

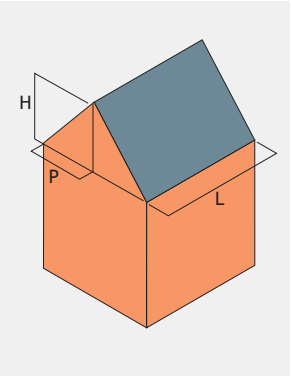


BS EN 12056-3: 2000 contains maps showing rainfall intensity in litres/second per $m^2$ for 1, 5, 50 and 500 year storms of 2 minute duration.

(All external gutters designed for 1 year event).

### Step 2

**Calculating Catchment Area**




CA = (P+H/2) x L

CA = Catchment area in square metres

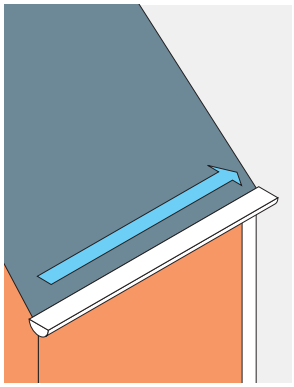
P = Horizontal distance between eaves and ridge

H = Height of roof

L = Length of eaves

### Step 3

**Frequency and Positioning of Outlets/Downpipes**



Calculate the number of outlets per run.

### Step 4

**Calculate Flow Requirements**

**Overall Rainfall**

Catchment Area (CA) x Rainfall Intensity (RI) = Overall Rainfall (OR)

**Flow Rate Per Outlet**

Overall Rainfall (OR) ÷ Number of Outlets = Flow Rate Per Outlet

Choose Gutter/Outlets according to published Flow Rate capacities.

**Note:**

Depending on building type, a safety factor should be allowed for the sizing of internal gutters. Contact Alumasc Technical Services for further information.

alumasc

Available on the iPad App Store

## Technical Support

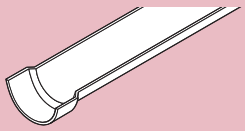
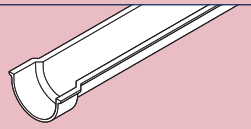
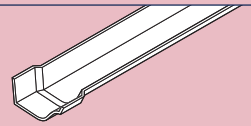
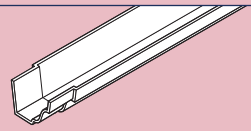
Alumasc's new Drainage Design Calculators are available as a download from the Alumasc Rainwater website. www.alumascrainwater.co.uk

# Gutter Flow Rates

All Flow Rates quoted on this page are shown in litres per second. Gutter capacities are based on BS EN 12056-3:2000, assuming a maximum distance of 50 x gutter depth, from high point to outlet. Longer gutters or gutters with corners exceeding 10° will have a reduced capacity.

For further information contact Alumasc Technical Services.

### Rainwater Gutter Flow Rates (l/s)

| | | | Pipe outlet Diameter (mm) | | | Pipe outlet size (mm) | | |
|---|---|---|---|---|---|---|---|---|
| | Profile | Size (mm) | 63 | 75 | 100 | 75 x 75 | 100 x 75 | 100 x 100 |
|  | Half Round | 100 | 1.19 | 1.22 | - | - | - | - |
| | | 113 | 1.19 | 1.62 | - | - | - | - |
| | | 125 | 1.19 | 1.62 | 2.06 | - | - | - |
| | | 152 | 1.19 | 1.64 | 3.14 | - | - | - |
|  | Beaded Half Round | 113 | 1.19 | 1.62 | - | - | - | - |
| | | 125 | 1.19 | 1.97 | 2.06 | - | - | - |
|  | Victorian Ogee | 113 | 1.24 | 1.80 | - | - | - | - |
| | | 125 | 1.24 | 1.97 | 2.32 | - | - | - |
|  | Moulded | 100 x 75 | 1.09 | 1.64 | - | 2.24 | 2.24 | - |
| | | 125 x 100 | 1.09 | 1.64 | 3.21 | 2.17 | 3.17 | - |
| | | 150 x 100 | 1.09 | 1.64 | 3.21 | 2.17 | 3.17 | 4.43 |

### Rainwater Pipe Flow Rates

Note: The capacity of a rainwater system is usually dependent upon the capacity of the gutter outlet or flat roof outlet rather than the rainwater pipe. Please refer to BS EN 12056-3:2000, Section 6, Table 8 for capacities of vertical rainwater pipes.

# NBS Specification

A typical NBS Specification for Alumasc cast iron gutters and downpipes is provided below. A full range of NBS specifications are available via Alumasc's online NBS Specification Builder at www.alumascrainwater.co.uk.
For project specific specification advice, contact Alumasc Technical Services.

## R10 Rainwater Drainage Systems



### GENERAL

- Gravity Rainwater Drainage System.
- Rainwater outlets, gutters, pipework and accessories as per detail sections below.

### SYSTEM PERFORMANCE

- Design Standard: To BS EN 12056-3:2000, clauses 3-7 and National Annexes.
- Collection and Distribution of Rainwater: Complete, and without leakage or noise nuisance.
- Design Parameters: Design rate of rainfall as per BS EN 12056-3:2000, National Annex NB.2 - Category 1

### PRODUCTS (TYPICAL SPECIFICATION)

APEX HERITAGE CAST IRON HALF ROUND BEADED GUTTER (113mm)

315 APEX HERITAGE CAST IRON GUTTERS

Gutters and fittings to: BS 8530 (formerly BS 2997)
Manufacturer: Alumasc Exterior Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG.
Tel: 01744 648400, Fax: 01744 648401, Email: info@alumasc-exteriors.co.uk

| | |
|---|---|
| Reference: | Apex Heritage cast iron rainwater system |
| Profile: | Half Round Beaded |
| Size: | 113mm |
| Outlet Size: | 75mm |
| Type/grade: | Made from LM2 and LM6 grades of Aluminium alloy to BSEN1559:1997, BSEN 1676:1997 and BSEN 1706:1998 |
| Finish: | Painted Finish |
| Colour: | RAL 3020 233 Traffic Red |
| Jointing: | Gutter lengths or fittings are overlapped at the joint with a spigot and socket. Slots are provided for fixing using M6 mushroom head aluminium screws with nuts and washers. Seal evenly across the joints with Dow Corning 791. |
| Fixing: | Fascia bracket fixed at 915mm centres and at each fitting using number 12x38mm round head twin thread screws and washers bright zinc plated. |




Create Alumasc Rainwater System NBS specifications by selecting the required product range, profile, size and finish by visiting:

www.alumascrainwater.co.uk

### PRODUCTS (TYPICAL SPECIFICATION)

APEX HERITAGE CAST IRON DOWNPIPE (75mm diameter)

380 APEX HERITAGE CAST IRON PIPEWORK FOR EXTERNAL USE:

Pipes, fittings and accessories to: BS 2997
Manufacturer: As above

| | |
|---|---|
| Reference: | Apex Heritage cast iron downpipe system |
| Size: | 75mm diameter |
| Type/grade: | 6063 TF alloy |
| Finish: | Painted Finish |
| Colour: | RAL 3020 233 Traffic Red |
| Fixing: | Pipe clip fixed at maximum 2.0m centres. Plug and screw to wall with number 12 x 50mm round head twin thread screws and washers bright zinc plated to BS 1706:1960 Class ZN3. Seal internal spigot joints with Dow corning 791 silicone sealant allowing for a 3-4 mm vertical thermal movement gap. |
| Accessories: | Bends, Branches, Access Pipes, Offsets, Shoes, Rainwater Heads, Pipe Clips |

# General Specification Advice

General specification clauses for aluminium rainwater systems are provided below.
For project specific specification advice, contact Alumasc Technical Services.

## EXECUTION CLAUSES

### 600 PREPARATION, ENSURE:

- 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 galvanized 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, sherardized, galvanized 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.
- Spread jointing compound evenly over jointing face of socket.
- For gutters with bolted joints, tighten joints in the gutter sole before any other bolts. Fit suitable washers, and spacers to prevent overtightening, unless specified otherwise.
- Tighten fixing to squeeze out some compound.
- Remove surplus, squeezed out compound and neatly clean off.
- Ensure that roofing underlay is dressed into gutter.

### 615 SETTING OUT EAVES GUTTERS - TO FALLS

- Set out to a true line and even gradient to ensure no ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
- 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.

### 650 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.

### 675 COATED PIPEWORK/GUTTERS:

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

### 685 IDENTIFICATION OF INTERNAL RAINWATER PIPEWORK:

- To BS 1710 using self-adhesive bands or identification clips located at junctions, at both sides of each slab, bulkhead and wall penetration, and elsewhere as directed.

### 690 ELECTRICAL CONTINUITY:

- 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.

### 700 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 CLAUSES

### 900 TESTING GENERALLY:

- Inform the Contractor Administrator 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 Contractor Administrator.

### 905 INTERNAL PIPEWORK TEST - ENGLAND, WALES AND NORTHERN IRELAND:

- Temporarily seal open ends of pipework with plugs.
- Connect a 'U' tube water gauge and air pump to the pipework via a plug.
- Pump air into pipework until gauge registers 38 mm.
- Allow a period for temperature stabilization, after which the pressure of 38 mm is to be maintained without loss for not less than 3 minutes.

### 906 INTERNAL PIPEWORK TEST- SCOTLAND

- Standard - To BSEN12056-3:2000, National Annex NG

### 910 GUTTER TEST:

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

### 915 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.

### 920 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.

# Harmer LCC Cast Iron Soil & Waste Systems

A traditional cast iron system of socketed pipes, fittings and accessories, manufactured to imperial dimensions and created to faithfully reproduce period detail.



# Harmer LCC Traditional Cast Iron Soil & Waste Systems – Product Summary



Harmer - LCC Pipes



Harmer - LCC Couplings



Harmer - LCC Double Branches



Harmer - LCC Holderbats



Harmer - LCC Single Branches





Harmer - LCC Bends

**Pipes and Fittings**

The pipes, branches and bends illustrated above are available in various sizes and configurations, including options for access.

Other fittings include Blank Ends, Socket Reducers, Diminishing Pieces, Swan Necks, Boss Pipes, Shoes and P Traps.

# Harmer LCC Traditional Cast Iron Soil & Waste Systems Product Summary

Alumasc has taken the original processes for the casting of iron, and combined them with modern manufacturing techniques to produce a product fully attuned to today's refurbishment requirements.

## Features

Harmer LCC incorporates all the inherent characteristics of cast iron, plus dimensional accuracy and a consistent standard of finish for the final site installation.

An extensive range of fittings and accessories provides great flexibility in installation, while special detailing requirements can be catered for through Alumasc's fabrication and pattern making workshops.

Alumasc has also perfected the welding of cast iron, so that fittings or offsets to suit a particular situation can be specially fabricated where the alternative of making a pattern would not be economic.

## Key Benefits

- Ideal for itemised replacement of existing LCC systems
- Manufactured to original imperial dimensions
- Supplied ready painted
- Comprehensive range of fittings
- Unique specials manufacture and fabrication

## General Description

### Finishes

Harmer LCC soil and waste pipes and fittings are factory-dipped in bitumen in accordance with BS 416. Where gloss painting is required, it is advisable to contact Alumasc Technical Services on 01744 648400.

### Standards

Harmer LCC waste pipes and fittings comply with the requirements of BS 416: Discharge, ventilating pipes and fittings, sand cast or spun in cast iron, Part 1, 1990. Harmer LCC systems also comply with the relevant sections of the Building Regulations throughout the United Kingdom.

### Installation

BS 8000: Workmanship on building sites, Part 13, Code of practice for above ground drainage and sanitary appliances, 1989 is applicable.

### Suitability

Cast iron should not be used for conveying acid wastes or laid unprotected in any soil conditions where corrosion could occur.

### On-site Storage

To avoid accidental damage to collars or pipe ends, pipes should be stored horizontally, blocked up clear of the ground and preferably under cover.

### Imperial Dimensions

All products are made to the original imperial dimensions. This ensures a compatible interchange between old and new pipes and fittings and makes it more likely that, where an existing installation is being repaired or replaced, the original fixing holes can be re-used.

### Pipe Fixing and Support

Holderbats for plugging and screwing to walls are available. Bobbins should be used to pack out the holderbat to give a 32mm painting gap for pipes up to 75mm (3") diameter, and 38mm for the 88mm ($3^1/_2$") and 100mm (4") diameter pipes. For fixing centres reference should be made to BS 8000: Maximum distance between sanitary pipe supports, Table 1.

### Pipe Joints

Pipe joints should be made using a caulking of 6mm diameter yarn, now available only in glass fibre instead of the traditional tarred yarn, with a minimum 38mm thickness of lead wool, well compacted.

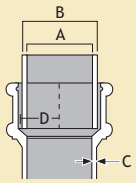
### Testing

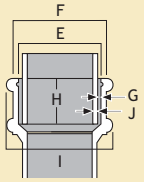
The Building Regulations 1991, Requirement H1, Approved Document paragraph 1.7(a) requires that all the pipes, fittings and joints should be capable of withstanding an air or smoke test of at least 38mm gauge, for 3 minutes.

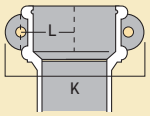


## Pipe Diamaters, Lengths and Weights: Manufacturing Dimensions

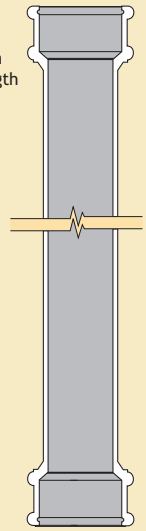
Single Socket




Double Socket (1830mm pipe length only)



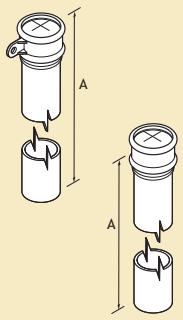
| Pipe diameter | 100 | 88 | 76 | 63 | 50 |
|---|---|---|---|---|---|
| A Internal diameter | 100 | 85 | 76 | 60 | 50 |
| B External diameter | 114 | 100 | 88 | 76 | 63 |
| C Thickness | 6 | 6 | 6 | 6 | 6 |
| D Diameter over spigot bead | 104 | 111 | 98 | 85 | 69 |
| **Socket** | | | | | |
| E Internal diameter | 127 | 114 | 100 | 88 | 73 |
| F External diameter | 136 | 130 | 117 | 104 | 88 |
| G Thickness | 6 | 6 | 6 | 6 | 6 |
| H Internal depth | 76 | 76 | 69 | 69 | 63 |
| I External diameter over spigot bead | 133 | 146 | 139 | 114 | 100 |
| J Caulking clearance | 6 | 6 | 6 | 6 | 6 |
| **Ears** | | | | | |
| K Length of flange overall | 212 | 193 | 177 | 161 | 146 |
| L Centre to centre of holes | 180 | 161 | 146 | 130 | 114 |

| Pipe length and weight | 100 | 88 | 76 | 63 | 50 |
|---|---|---|---|---|---|
| 1830 (6') overall length of pipe | 1830 | 1830 | 1830 | 1830 | 1830 |
| Effective length of pipe | 1725 | 1725 | 1730 | 1730 | 1737 |
| Weight of 6' pipe without ears | 21.7 kg | 19.0 kg | 16.7 kg | 14.0 kg | 11.0 kg |
| Weight of 6' pipe with ears | 22.2 kg | 19.5 kg | 17.2 kg | 14.5 kg | 12.0 kg |
| 1219 (4') overall length of pipe | 1219 | 1219 | 1219 | 1219 | 1219 |
| Effective length of pipe | 1125 | 1125 | 1130 | 1130 | 1137 |
| Weight of 6' pipe without ears | 14.5 kg | 12.7 kg | 11.2 kg | 9.5 kg | 8 kg |
| Weight of 6' pipe with ears | 14.8 kg | 13 kg | 11.5 kg | 10 kg | 8.5 kg |
| 914 (3') overall length of pipe | 914 | 914 | 914 | 914 | 914 |
| Effective length of pipe | 725 | 725 | 730 | 730 | 737 |
| Weight of 6' pipe without ears | 10.8 kg | 9.5 kg | 8.3 kg | 7 kg | 5.7 kg |
| Weight of 6' pipe with ears | 11.3 kg | 10 kg | 8.8 kg | 7.5 kg | 6.2 kg |
| 610 (2') overall length of pipe | 610 | 610 | 610 | 610 | 610 |
| Effective length of pipe | 525 | 525 | 530 | 530 | 537 |
| Weight of 6' pipe without ears | 7.3 kg | 6.8 kg | 5.5 kg | 4.7 kg | 4 kg |
| Weight of 6' pipe with ears | 7.8 kg | 6.8 kg | 6 kg | 5.2 kg | 4.5 kg |
| Double socket pipe, 1830 (6') overall pipe length only | | | | | |
| Effective length of pipe | 1650 | 1650 | 1663 | 1663 | 1669 |
| Weight of 6' pipe without ears | 23.7 kg | 20.5 kg | 18.2 kg | 15.3 kg | 12.5 kg |
| Weight of 6' pipe with ears | 24.2 kg | 21 kg | 18.7 kg | 15.8 kg | 13 kg |
| Note: Double socket pipes are subject to availability | | | | | |

Note: All dimensions are given in millimetres. An imperial to metric conversion table is given on page 165.

# Harmer LCC Pipes

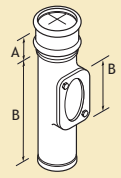
## Pipes - With and Without Ears




| Pipe Size | A | Product Code |
|---|---|---|
| 50 dia | 610mm | L20/2FT |
| 50 dia | 914mm | L20/3FT |
| 50 dia | 1219mm | L20/4FT |
| 50 dia | 1830mm | L20/6FT |
| 63 dia | 610mm | L25/2FT |
| 63 dia | 914mm | L25/3FT |
| 63 dia | 1219mm | L25/4FT |
| 63 dia | 1830mm | L25/6FT |
| 75 dia | 610mm | L30/2FT |
| 75 dia | 914mm | L30/3FT |
| 75 dia | 1219mm | L30/4FT |
| 75 dia | 1830mm | L30/6FT |
| 87 dia | 610mm | L35/2FT |
| 87 dia | 914mm | L35/3FT |
| 87 dia | 1219mm | L35/4FT |
| 87 dia | 1830mm | L35/6FT |
| 100 dia | 610mm | L40/2FT |
| 100 dia | 914mm | L40/3FT |
| 100 dia | 1219mm | L40/4FT |
| 100 dia | 1830mm | L40/6FT |

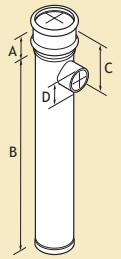
Notes:
1. Pipes without Ears. If pipes without ears are required, add suffix NE to the order code.
2. Double Collared Pipes. If double collared pipes are required with ears, add suffix DCE to the order code. Add suffix DC if no ears required. Only available in 6ft lengths.
3. Pipe nails are available to order.
4. When specifying loose couplings, slip couplings and access pipes with ears, quote the full product code suffixed with /E.

## Access Pipes




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 50 dia | 63 | 234 | 63 | L20/AP |
| 63 dia | 69 | 245 | 76 | L25/AP |
| 75 dia | 69 | 266 | 88 | L30/AP |
| 87 dia | 76 | 273 | 95 | L35/AP |
| 100 dia | 76 | 285 | 100 | L40/AP |

## Boss Pipes




| Pipe Size | A | B | C | Inlet Pipe Size (D) | Product Code |
|---|---|---|---|---|---|
| 75 dia | 76 | 381 | 139 | 38 | L30/BP/150 |
| 87 dia | 76 | 381 | 139 | 38 | L35/BP/150 |
| 100 dia | 76 | 381 | 139 | 31 | L40/BP/125 |
| 100 dia | 76 | 381 | 139 | 38 | L40/BP/150 |
| 100 dia | 76 | 381 | 139 | 50 | L40/BP/200 |

Note: All dimensions are given in millimetres. An imperial to metric conversion table is given on page 165.

# Harmer LCC Fittings

## Screw To Wall Cast Iron Holderbats



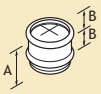
| Pipe Size | Product Code |
|---|---|
| 50 dia | L20/HB/ST |
| 63 dia | L25/HB/ST |
| 75 dia | L30/HB/ST |
| 88 dia | L35/HB/ST |
| 100 dia | L40/HB/ST |
| Note: Cast iron bobbins are available spacing from 13mm to 50mm in 6mm increments. | |

## Built-in Holderbats



| Pipe Size | Product Code |
|---|---|
| 50 dia | L20/HB/BI |
| 63 dia | L25/HB/BI |
| 75 dia | L30/HB/BI |
| 88 dia | L35/HB/BI |
| 100 dia | L40/HB/BI |
| Note: Cast bins are available spacing from 13mm to 50mm in 6mm increments. | |

## Loose Couplings




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 50 dia | 45 | 95 | L20/SOC |
| 63 dia | 45 | 95 | L25/SOC |
| 75 dia | 38 | 90 | L30/SOC |
| 87 dia | 38 | 86 | L35/SOC |
| 100 dia | 35 | 80 | L40/SOC |

## Slip Couplings




| Pipe Size | A | Product Code |
|---|---|---|
| 50 dia | 95 | L20/SOC/S |
| 63 dia | 95 | L25/SOC/S |
| 75 dia | 89 | L30/SOC/S |
| 87 dia | 95 | L35/SOC/S |
| 100 dia | 79 | L40/SOC/S |

Note: When specifying fittings with ears, quote the full product code suffixed with /E.

# Harmer LCC Fittings

## Blank End



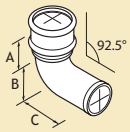

| Pipe Size | A | Product Code |
|---|---|---|
| 75 dia | 76 | L30/BE |
| 87 dia | 76 | L35/BE |
| 100 dia | 70 | L40/BE |

## Socket Reducer



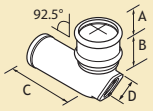

| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 75 dia | 51 | 76 | L30/SR/20 |
| 87 dia | 76 | 76 | L40/SR/20 |
| 100 dia | 51 | 70 | L40/SR/30 |

## 92.5° Bends



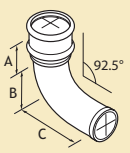

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 50 dia | 152 | 139 | 88 | L20/B/92 |
| 63 dia | 165 | 155 | 95 | L25/B/92 |
| 75 dia | 174 | 161 | 104 | L30/B/92 |
| 87 dia | 187 | 177 | 111 | L35/B/92 |
| 100 dia | 193 | 180 | 117 | L40/B/92 |

## 92.5° Bends with heel access




| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 152 | 139 | 88 | 63 | L20/B/92 |
| 63 dia | 165 | 155 | 95 | 76 | L25/B/92 |
| 75 dia | 174 | 161 | 104 | 88 | L30/B/92 |
| 87 dia | 187 | 177 | 111 | 95 | L35/B/92 |
| 100 dia | 193 | 180 | 117 | 100 | L40/B/92 |

## 92.5° Long Radius Bends

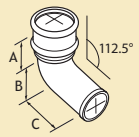



| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 100 dia | 298 | 304 | 222 | L40/BLR |

Note: If bends with ears are required, add LE to the order code for left hand side and RE for right hand side bend.

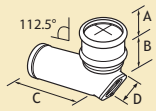
# Harmer LCC Fittings

## 112.5° Bends



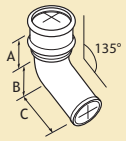

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 50 dia | 152 | 139 | 88 | L20/B/112 |
| 63 dia | 165 | 155 | 95 | L25/B/112 |
| 75 dia | 174 | 161 | 104 | L30/B/112 |
| 87 dia | 184 | 177 | 111 | L35/B/112 |
| 100 dia | 193 | 180 | 120 | L40/B/112 |

## 112.5° Bends with heel access



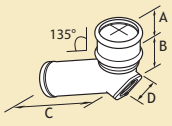

| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 152 | 139 | 88 | 63 | L20/B/112H |
| 63 dia | 165 | 155 | 95 | 66 | L25/B/112H |
| 75 dia | 174 | 161 | 104 | 73 | L30/B/112H |
| 87 dia | 184 | 177 | 111 | 95 | L35/B/112H |
| 100 dia | 193 | 180 | 120 | 100 | L40/B/112H |

## 135° Bends



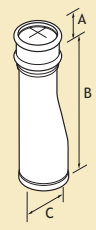

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 50 dia | 127 | 142 | 88 | L20/B/135 |
| 63 dia | 136 | 158 | 95 | L25/B/135 |
| 75 dia | 142 | 161 | 104 | L30/B/135 |
| 87 dia | 171 | 161 | 111 | L35/B/135 |
| 100 dia | 177 | 165 | 120 | L40/B/135 |

## 135° Bends with heel access




| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 127 | 142 | 88 | 63 | L20/B/135H |
| 63 dia | 136 | 158 | 95 | 66 | L25/B/135H |
| 75 dia | 142 | 161 | 104 | 73 | L30/B/135H |
| 87 dia | 171 | 161 | 111 | 95 | L35/B/135H |
| 100 dia | 177 | 165 | 120 | 100 | L40/B/135H |

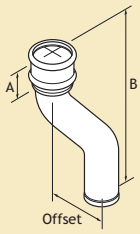
## Diminishing Pieces




| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 75 dia | 69 | 304 | 50 | L25/B/92AR |
| 100 dia | 76 | 304 | 50 | L25/B/92AL |
| 100 dia | 76 | 304 | 75 | L35/B/92AL |

Note: If bends with ears are required, add LE to the order code for left hand side and RE for right hand side bend.

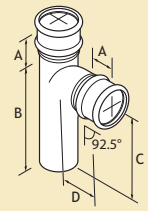
## 112.5° Swan Necks




| Pipe Size | A | B | Offset | Product Code |
|---|---|---|---|---|
| 50 dia | 63 | 241 | 75 | L20/OF/03 |
| 50 dia | 63 | 257 | 112 | L20/OF/04 |
| 50 dia | 63 | 273 | 150 | L20/OF/06 |
| 50 dia | 63 | 304 | 237 | L20/OF/09 |
| 50 dia | 63 | 336 | 300 | L20/OF/12 |
| 50 dia | 63 | 361 | 375 | L20/OF/15 |
| 50 dia | 63 | 400 | 475 | L20/OF/18 |
| 50 dia | 63 | 431 | 554 | L20/OF/21 |
| 50 dia | 63 | 463 | 600 | L20/OF/24 |
| 63 dia | 69 | 257 | 75 | L25/OF/03 |
| 63 dia | 69 | 273 | 112 | L25/OF/04 |
| 63 dia | 69 | 288 | 150 | L25/OF/06 |
| 63 dia | 69 | 320 | 237 | L25/OF/09 |
| 63 dia | 69 | 352 | 300 | L25/OF/12 |
| 63 dia | 69 | 384 | 375 | L25/OF/15 |
| 63 dia | 69 | 415 | 475 | L25/OF/18 |
| 63 dia | 69 | 447 | 554 | L25/OF/21 |
| 63 dia | 69 | 479 | 600 | L25/OF/24 |
| 75 dia | 69 | 266 | 75 | L30/OF/03 |
| 75 dia | 69 | 282 | 112 | L30/OF/04 |
| 75 dia | 69 | 298 | 150 | L30/OF/06 |
| 75 dia | 69 | 330 | 237 | L30/OF/09 |
| 75 dia | 69 | 361 | 300 | L30/OF/12 |
| 75 dia | 69 | 393 | 375 | L30/OF/15 |
| 75 dia | 69 | 425 | 475 | L30/OF/18 |
| 75 dia | 69 | 457 | 554 | L30/OF/21 |
| 75 dia | 69 | 488 | 600 | L30/OF/24 |
| 87 dia | 76 | 282 | 75 | L35/OF/03 |
| 87 dia | 76 | 298 | 112 | L35/OF/04 |
| 87 dia | 76 | 314 | 150 | L35/OF/06 |
| 87 dia | 76 | 346 | 237 | L35/OF/09 |
| 87 dia | 76 | 377 | 300 | L35/OF/12 |
| 87 dia | 76 | 409 | 375 | L35/OF/15 |
| 87 dia | 76 | 441 | 475 | L35/OF/18 |
| 87 dia | 76 | 473 | 554 | L35/OF/21 |
| 87 dia | 76 | 504 | 600 | L35/OF/24 |
| 100 dia | 76 | 288 | 75 | L40/OF/03 |
| 100 dia | 76 | 307 | 112 | L40/OF/04 |
| 100 dia | 76 | 323 | 150 | L40/OF/06 |
| 100 dia | 76 | 355 | 237 | L40/OF/09 |
| 100 dia | 76 | 387 | 300 | L40/OF/12 |
| 100 dia | 76 | 419 | 375 | L40/OF/15 |
| 100 dia | 76 | 450 | 475 | L40/OF/18 |
| 100 dia | 76 | 482 | 554 | L40/OF/21 |
| 100 dia | 76 | 514 | 600 | L40/OF/24 |

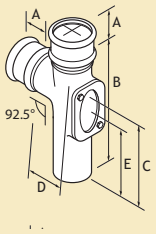
Note: If swan necks with ears are required, add LE to the order code for left hand side and RE for right hand side bend.

## 92.5° Equal Single Branches



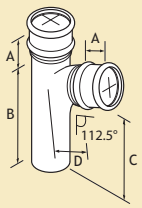

| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 177 | 88 | L20/BR/9 |
| 63 dia | 69 | 260 | 196 | 95 | L25/BR/9 |
| 75 dia | 69 | 285 | 212 | 111 | L30/BR/9 |
| 87 dia | 76 | 304 | 225 | 117 | L35/BR/9 |
| 100 dia | 76 | 330 | 214 | 130 | L40/BR/9 |

## 92.5° Equal Single Branches with access



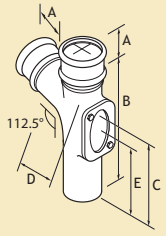

| Pipe Size | A | B | C | D | E | Product Code |
|---|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 177 | 88 | 146 | L20/BRA/9 |
| 63 dia | 69 | 260 | 196 | 95 | 161 | L25/BRA/9 |
| 75 dia | 69 | 285 | 212 | 111 | 177 | L30/BRA/9 |
| 87 dia | 76 | 304 | 225 | 117 | 190 | L35/BRA/9 |
| 100 dia | 76 | 330 | 214 | 130 | 206 | L40/BRA/9 |

## 112.5° Equal Single Branches




| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 155 | 79 | L20/BR/11 |
| 63 dia | 69 | 260 | 174 | 85 | L25/BR/11 |
| 75 dia | 69 | 285 | 184 | 100 | L30/BR/11 |
| 87 dia | 76 | 304 | 120 | 107 | L35/BR/11 |
| 100 dia | 76 | 330 | 184 | 146 | L40/BR/11 |

## 112.5° Equal Single Branches with access

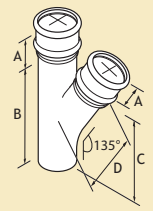



| Pipe Size | A | B | C | D | E | Product Code |
|---|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 155 | 88 | 146 | L20/BRA/9 |
| 63 dia | 69 | 260 | 174 | 95 | 161 | L25/BRA/9 |
| 75 dia | 69 | 285 | 184 | 111 | 177 | L30/BRA/9 |
| 87 dia | 76 | 304 | 120 | 117 | 190 | L35/BRA/9 |
| 100 dia | 76 | 330 | 184 | 130 | 206 | L40/BRA/9 |

Note: When specifying fittings with ears, quote the full product code suffixed with /E.

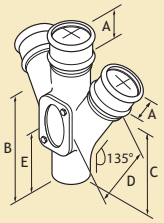
# Harmer LCC Fittings

## 135° Equal Single Branches



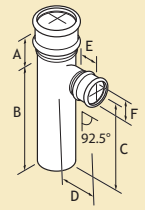

| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 120 | 114 | L20/BR/13 |
| 63 dia | 69 | 260 | 130 | 130 | L25/BR/13 |
| 75 dia | 69 | 285 | 133 | 152 | L30/BR/13 |
| 87 dia | 76 | 304 | 146 | 158 | L35/BR/13 |
| 100 dia | 76 | 330 | 146 | 184 | L40/BR/13 |

## 135° Equal Single Branches with Access



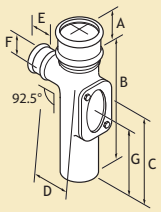

| Pipe Size | A | B | C | D | E | Product Code |
|---|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 120 | 114 | 146 | L20/BRA/9 |
| 63 dia | 69 | 260 | 130 | 130 | 161 | L25/BRA/9 |
| 75 dia | 69 | 285 | 133 | 152 | 177 | L30/BRA/9 |
| 87 dia | 76 | 304 | 146 | 158 | 190 | L35/BRA/9 |
| 100 dia | 76 | 330 | 146 | 184 | 206 | L40/BRA/9 |

## 92.5° Unequal Single Branches




| Pipe Size | A | B | C | D | E | F | Product Code |
|---|---|---|---|---|---|---|---|
| 63 dia | 69 | 260 | 196 | 95 | 63 | 50 | L25/BRU/95 |
| 75 dia | 69 | 260 | 196 | 100 | 63 | 50 | L30/BRU/95 |
| 75 dia | 69 | 273 | 206 | 104 | 69 | 63 | L30/BRU/96 |
| 87 dia | 76 | 266 | 206 | 107 | 63 | 50 | L35/BRU/95 |
| 87 dia | 76 | 285 | 209 | 111 | 69 | 63 | L35/BRU/96 |
| 87 dia | 76 | 292 | 215 | 117 | 69 | 75 | L35/BRU/97 |
| 100 dia | 76 | 279 | 219 | 114 | 63 | 50 | L40/BRU/95 |
| 100 dia | 76 | 285 | 209 | 117 | 69 | 63 | L40/BRU/96 |
| 100 dia | 76 | 292 | 215 | 123 | 69 | 75 | L40/BRU/97 |
| 100 dia | 76 | 304 | 209 | 123 | 76 | 88 | L40/BRU/98 |

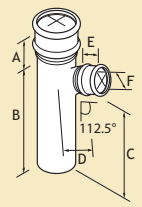
## 92.5° Unequal Single Branches with Access




| Pipe Size | A | B | C | D | E | F | G | Product Code |
|---|---|---|---|---|---|---|---|---|
| 63 dia | 69 | 260 | 196 | 95 | 63 | 50 | 165 | L25/BRU/95 |
| 75 dia | 69 | 260 | 196 | 100 | 63 | 50 | 165 | L30/BRU/95 |
| 75 dia | 69 | 273 | 206 | 104 | 69 | 63 | 170 | L30/BRU/96 |
| 87 dia | 76 | 266 | 206 | 107 | 63 | 50 | 165 | L35/BRU/95 |
| 87 dia | 76 | 285 | 209 | 111 | 69 | 63 | 176 | L35/BRU/96 |
| 87 dia | 76 | 292 | 215 | 117 | 69 | 75 | 187 | L35/BRU/97 |
| 100 dia | 76 | 279 | 219 | 114 | 63 | 50 | 177 | L40/BRU/95 |
| 100 dia | 76 | 285 | 209 | 117 | 69 | 63 | 180 | L40/BRU/96 |
| 100 dia | 76 | 292 | 215 | 123 | 69 | 75 | 182 | L40/BRU/97 |
| 100 dia | 76 | 304 | 209 | 123 | 76 | 88 | 178 | L40/BRU/98 |

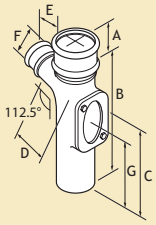
Note: When specifying fittings with ears, quote the full product code suffixed with /E.

## 112.5° Unequal Single Branches



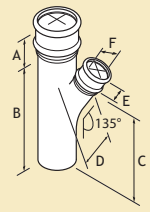

| Pipe Size | A | B | C | D | E | F | Product Code |
|---|---|---|---|---|---|---|---|
| 63 dia | 69 | 276 | 187 | 104 | 63 | 50 | L25/BRU/115 |
| 75 dia | 69 | 260 | 174 | 92 | 63 | 50 | L30/BRU/115 |
| 75 dia | 69 | 276 | 187 | 104 | 69 | 63 | L30/BRU/116 |
| 87 dia | 76 | 263 | 180 | 98 | 63 | 50 | L35/BRU/115 |
| 87 dia | 76 | 288 | 184 | 111 | 69 | 76 | L35/BRU/117 |
| 100 dia | 76 | 279 | 190 | 104 | 63 | 50 | L35/BRU/115 |
| 100 dia | 76 | 288 | 184 | 114 | 69 | 76 | L40/BRU/117 |
| 100 dia | 76 | 304 | 193 | 111 | 76 | 88 | L40/BRU/118 |

## 112.5° Unequal Single Branches with Access




| Pipe Size | A | B | C | D | E | F | G | Product Code |
|---|---|---|---|---|---|---|---|---|
| 63 dia | 69 | 276 | 187 | 104 | 63 | 50 | 165 | L25/BRUA/115 |
| 75 dia | 69 | 260 | 174 | 92 | 63 | 50 | 165 | L30/BRUA/115 |
| 75 dia | 69 | 276 | 187 | 104 | 69 | 63 | 165 | L30/BRUA/116 |
| 87 dia | 76 | 263 | 180 | 98 | 63 | 50 | 165 | L35/BRUA/115 |
| 87 dia | 76 | 288 | 184 | 111 | 69 | 75 | 184 | L35/BRUA/117 |
| 100 dia | 76 | 279 | 190 | 104 | 63 | 50 | 174 | L35/BRUA/115 |
| 100 dia | 76 | 288 | 184 | 114 | 69 | 75 | 180 | L40/BRUA/117 |
| 100 dia | 76 | 304 | 193 | 111 | 76 | 88 | 177 | L40/BRUA/118 |

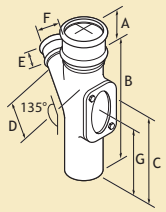
## 135° Unequal Single Branches




| Pipe Size | A | B | C | D | E | F | Product Code |
|---|---|---|---|---|---|---|---|
| 63 dia | 69 | 260 | 130 | 133 | 63 | 50 | L25/BRU/135 |
| 75 dia | 69 | 260 | 130 | 133 | 63 | 50 | L30/BRU/135 |
| 75 dia | 69 | 280 | 130 | 133 | 69 | 63 | L30/BRU/136 |
| 87 dia | 76 | 266 | 133 | 146 | 63 | 50 | L35/BRU/135 |
| 87 dia | 76 | 292 | 133 | 161 | 69 | 75 | L35/BRU/137 |
| 100 dia | 76 | 279 | 139 | 152 | 63 | 50 | L35/BRU/135 |
| 100 dia | 76 | 292 | 127 | 171 | 69 | 75 | L40/BRU/137 |
| 100 dia | 76 | 304 | 127 | 177 | 76 | 88 | L40/BRU/138 |

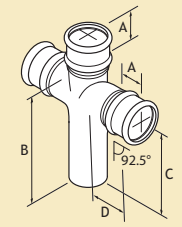
Note: When specifying fittings with ears, quote the full product code suffixed with /E.

## 135° Unequal Single Branches with Access



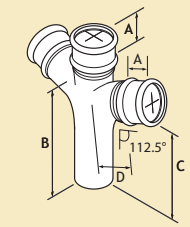

| Pipe Size | A | B | C | D | E | F | G | Product Code |
|---|---|---|---|---|---|---|---|---|
| 63 dia | 69 | 260 | 130 | 133 | 63 | 50 | 165 | L25/BRUA/135 |
| 75 dia | 69 | 260 | 130 | 133 | 63 | 50 | 165 | L30/BRUA/135 |
| 75 dia | 69 | 280 | 130 | 133 | 69 | 63 | 165 | L30/BRUA/136 |
| 87 dia | 76 | 266 | 133 | 146 | 63 | 50 | 165 | L35/BRUA/135 |
| 87 dia | 76 | 292 | 133 | 161 | 69 | 75 | 184 | L35/BRUA/137 |
| 100 dia | 76 | 279 | 139 | 152 | 63 | 50 | 174 | L35/BRUA/135 |
| 100 dia | 76 | 292 | 127 | 171 | 69 | 75 | 180 | L40/BRUA/137 |
| 100 dia | 76 | 304 | 127 | 177 | 76 | 88 | 177 | L40/BRUA/138 |

## 92.5° Equal Double Branches



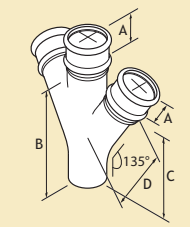

| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 177 | 88 | L20/BRD/9 |
| 63 dia | 69 | 260 | 196 | 95 | L25/BRD/9 |
| 75 dia | 69 | 285 | 212 | 111 | L30/BRD/9 |
| 87 dia | 76 | 304 | 225 | 117 | L35/BRD/9 |
| 100 dia | 76 | 330 | 241 | 130 | L40/BRD/9 |

## 112.5° Equal Double Branches




| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 155 | 79 | L20/BRD/11 |
| 63 dia | 69 | 260 | 174 | 85 | L25/BRD/11 |
| 75 dia | 69 | 285 | 184 | 98 | L30/BRD/11 |
| 87 dia | 76 | 304 | 193 | 111 | L35/BRD/11 |
| 100 dia | 76 | 330 | 209 | 120 | L40/BRD/11 |

## 135° Equal Double Branches

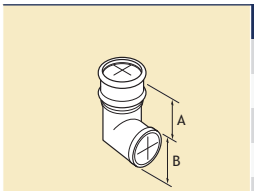



| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 50 dia | 63 | 234 | 120 | 114 | L20/BRD/13 |
| 63 dia | 69 | 260 | 130 | 130 | L25/BRD/13 |
| 75 dia | 69 | 285 | 136 | 149 | L30/BRD/13 |
| 87 dia | 76 | 304 | 146 | 158 | L35/BRD/13 |
| 100 dia | 76 | 330 | 146 | 184 | L40/BRD/13 |

Note: When specifying fittings with ears, quote the full product code suffixed with /E.

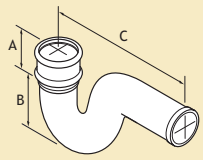
# Harmer LCC Fittings

## Shoes




| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 50 dia | 63 | 127 | L20/SH |
| 63 dia | 69 | 149 | L25/SH |
| 75 dia | 69 | 177 | L30/SH |
| 87 dia | 76 | 200 | L35/SH |
| 100 dia | 76 | 228 | L40/SH |

## P Traps



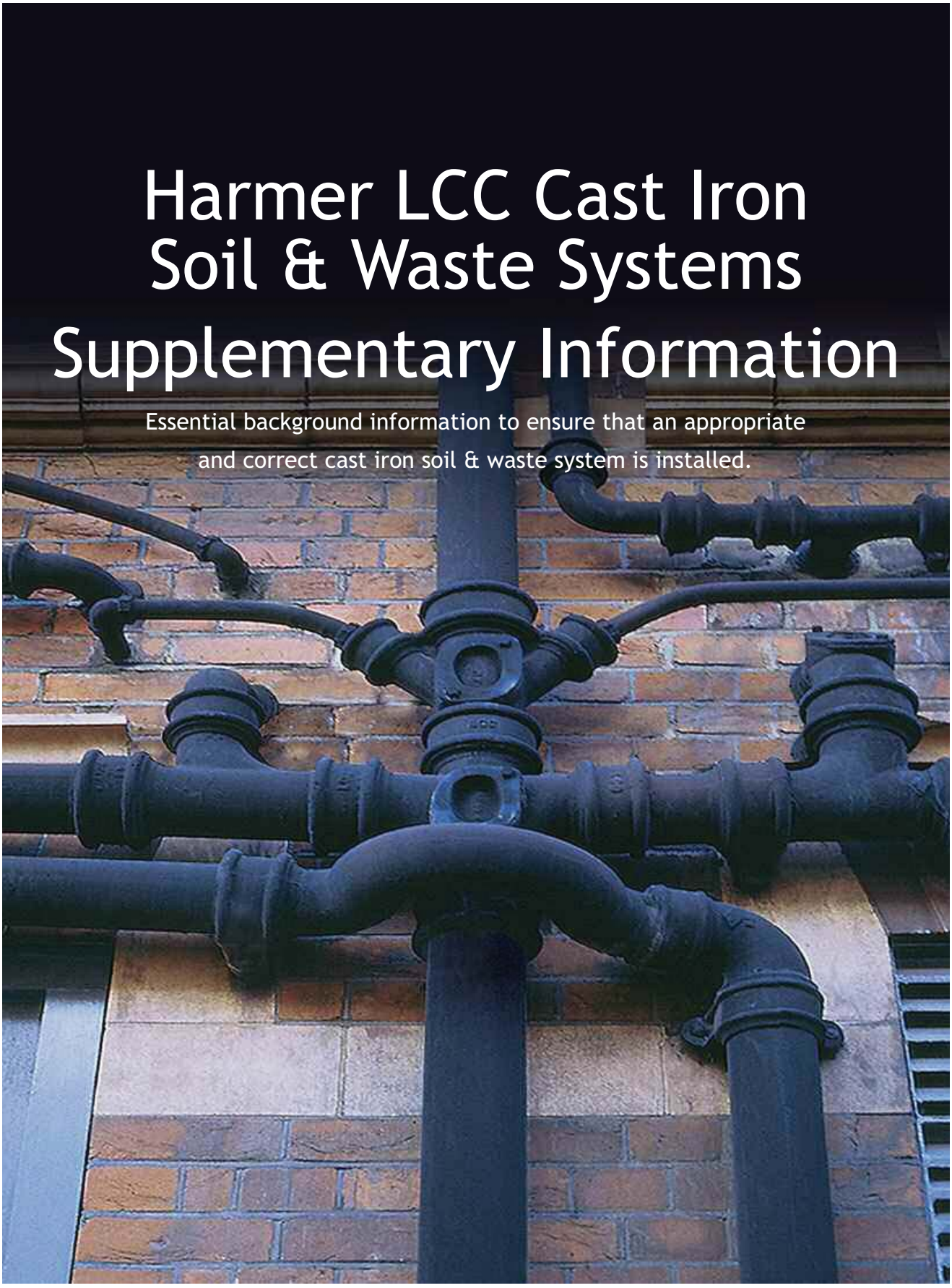

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 50 dia | 76 | 136 | 343 | L40/PT |

## Pipe Fixings



| Type | Size | Notes | Product Code |
|---|---|---|---|
| 3” Pipe Nail | M8 x 75mm | Bright zinc plated mild steel | NAIL30 |
| 4” Pipe Nail | M8 x 100mm | Bright zinc plated mild steel | NAIL40 |
| 3” Coach Screw | M8 x 75mm | Hardened steel zinc plated | COACH30 |
| 4” Coach Screw | M8 x 100mm | Hardened steel zinc plated | COACH40 |
| Coach Screw Cap | M8 dia | Black plastic | COACHCAP |
| Marine Sealant | 310ml Cartridge | Geocel black silicone rubber | MS991563 |
| Caulking Foam 13mm | M13 dia x 10 metre | Polyethylene backer rod | BF991413 |

Note: When specifying fittings with ears, quote the full product code suffixed with /E.



# Harmer LCC Cast Iron Soil & Waste Systems Supplementary Information

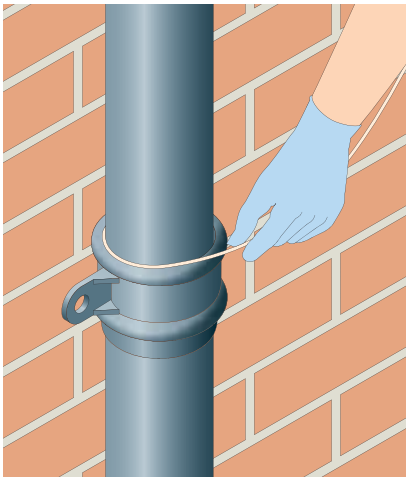
Essential background information to ensure that an appropriate and correct cast iron soil & waste system is installed.

# Harmer LCC – Installation

Harmer LCC Traditional Cast Iron Soil & Waste Drainage system has an extensive range of fittings and accessories to provide great flexibility in installation.

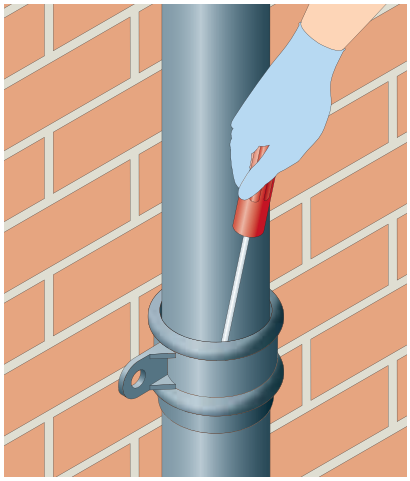
The LCC system can be installed using the traditional lead caulking method with the use of a naked flame. Alternatively, Harmer recommends a cold caulking method as described below.

**Cold Jointing Method for Harmer LCC Pipes**

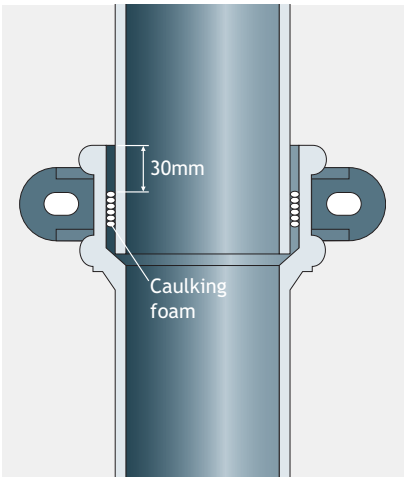


1. Centre the pipe spigot within the socket and insert the caulking foam.

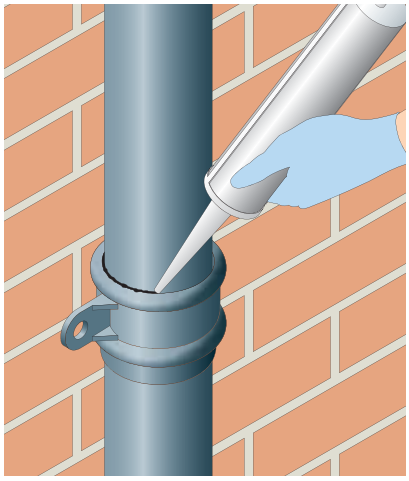
Note: Each joint of a 4" pipe will require approximately 4 metres of caulking foam and a quarter of a tube of black silicone sealant. Estimate usage for smaller or larger diameters on a pro rata basis.



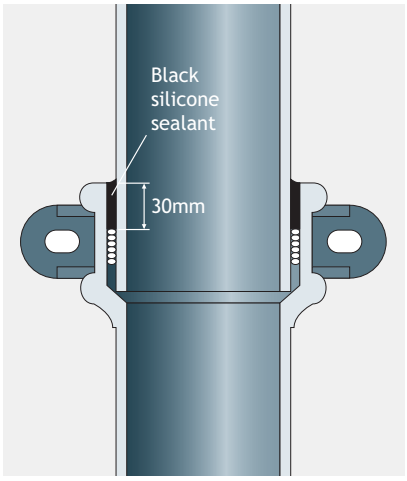
2. Caulk the foam into the socket up to 30mm from the top using a screwdriver. This will centralise the pipes and provide a backing for the sealant.



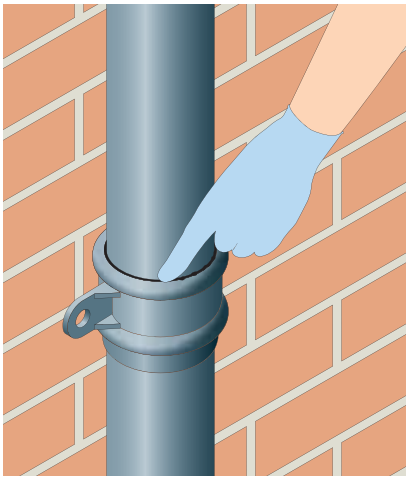

2a. A profile image showing the installed caulking foam in the socket, leaving a 30mm space for the silicone sealant.



3. Fill the top 30mm with black silicone sealant.




3a. A profile image showing the silicone sealant filling the 30mm gap to the top of the socket.



4. When filled, smooth off level with the top of the socket to provide a sealed and neat appearance. No further painting is required if the pipes are black.

**Fixing Methods for Harmer LCC Pipes**

For eared soil pipes: Use 100mm large head pipe nails, coach screws or other proprietary fixing.

For uneared soil pipes: Use drive-in spikes - alternatively, use holderbats or earbands for a more decorative effect.

All of these types of fixings are available from stock. (See the Price List, sundry items, page 124)

# NBS Specification

A typical NBS Specification for Harmer LCC Traditional soil and waste pipes is provided below. A full range of NBS specifications are available via Alumasc's online NBS Specification Builder at www.harmerdrainage.co.uk.
For project specific specification advice, contact Alumasc Technical Services.

## R11 Above Ground Foul Drainage Systems



### GENERAL

- Gravity Foul Drainage System.
- Sanitary and waste pipework, ventilating pipework.

### SYSTEM PERFORMANCE

- Design Standard: To BS EN 12056-1:2000, BS EN 12056-2:2000 and National Annexes NA-NG.
- Collection and Distribution of Foul Water: Complete, and without leakage or noise nuisance.
- Design Parameters: Self-cleansing, and without blockage, crossflow, backfall, leakage, odours or noise nuisance. Pipework pressure fluctuations: ±38mm (max). Trap water seal: 25mm (min).

### PRODUCTS (TYPICAL SPECIFICATION)

HARMER LCC TRADITIONAL CAST IRON

335 HARMER LCC PIPES

Gutters and fittings to: BS 8530 (formerly BS 2997)
Manufacturer: Alumasc Exterior Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG.
Tel: 01744 648400, Fax: 01744 648401, Email: info@alumasc-exteriors.co.uk

| | |
|---|---|
| Reference: | Harmer LCC cast iron soil and waste system |
| Size: | 76mm (3") diameter |
| Colour: | Black Gloss |
| Joint Type: | Spigot and Socket |
| Fixing: | Fixed to the wall at approximately 1.83m centres through the ears integral to the pipe or via separate galvanised steel holderbats. It is recommended that the fixings be round or dome head galvanised plugged screws with washers. |
| Accessories: | Bends, Branches, Access Pipes, Swan Necks, Plinth Offsets. |




Create Alumasc Rainwater System NBS specifications by selecting the required product range, profile, size and finish by visiting:

www.harmerdrainage.co.uk

# Imperial/Metric Conversion Chart

| in | mm |
|---|---|
| | |
| 1/8 | 3.2 |
| 1/4 | 6.4 |
| 3/8 | 9.5 |
| 1/2 | 12.7 |
| 5/8 | 15.9 |
| 3/4 | 19.1 |
| 7/8 | 22.2 |
| **1** | **25.4** |
| 1 1/8 | 28.6 |
| 1 1/4 | 31.8 |
| 1 3/8 | 34.9 |
| 1 1/2 | 38.1 |
| 1 5/8 | 41.3 |
| 1 3/4 | 44.5 |
| 1 7/8 | 47.6 |
| **2** | **50.8** |
| 2 1/8 | 54.0 |
| 2 1/4 | 57.2 |
| 2 3/8 | 60.3 |
| 2 1/2 | 63.5 |
| 2 5/8 | 66.7 |
| 2 3/4 | 69.9 |
| 2 7/8 | 73.0 |
| **3** | **76.2** |
| 3 1/8 | 79.4 |
| 3 1/4 | 82.6 |
| 3 3/8 | 85.7 |
| 3 1/2 | 88.9 |
| 3 5/8 | 92.1 |
| 3 3/4 | 95.3 |
| 3 7/8 | 98.4 |
| **4** | **101.6** |
| 4 1/8 | 104.8 |
| 4 1/4 | 108.0 |
| 4 3/8 | 111.1 |
| 4 1/2 | 114.3 |
| 4 5/8 | 117.5 |
| 4 3/4 | 120.7 |
| 4 7/8 | 123.8 |
| **5** | **127.0** |
| 5 1/8 | 130.2 |
| 5 1/4 | 133.4 |
| 5 3/8 | 136.5 |
| 5 1/2 | 139.7 |
| 5 5/8 | 142.9 |
| 5 3/4 | 146.1 |
| 5 7/8 | 149.2 |

| in | mm |
|---|---|
| **6** | **152.4** |
| 6 1/8 | 155.6 |
| 6 1/4 | 158.8 |
| 6 3/8 | 161.9 |
| 6 1/2 | 165.1 |
| 6 5/8 | 168.3 |
| 6 3/4 | 171.5 |
| 6 7/8 | 174.6 |
| **7** | **177.8** |
| 7 1/8 | 181.0 |
| 7 1/4 | 184.2 |
| 7 3/8 | 187.3 |
| 7 1/2 | 190.5 |
| 7 5/8 | 193.7 |
| 7 3/4 | 196.9 |
| 7 7/8 | 200.0 |
| **8** | **203.2** |
| 8 1/8 | 206.4 |
| 8 1/4 | 209.6 |
| 8 3/8 | 212.7 |
| 8 1/2 | 215.9 |
| 8 5/8 | 219.1 |
| 8 3/4 | 222.3 |
| 8 7/8 | 225.4 |
| **9** | **228.6** |
| 9 1/8 | 231.8 |
| 9 1/4 | 235.0 |
| 9 3/8 | 238.1 |
| 9 1/2 | 241.3 |
| 9 5/8 | 244.5 |
| 9 3/4 | 247.7 |
| 9 7/8 | 250.8 |
| **10** | **254.0** |
| 10 1/8 | 257.2 |
| 10 1/4 | 260.4 |
| 10 3/8 | 263.5 |
| 10 1/2 | 266.7 |
| 10 5/8 | 269.9 |
| 10 3/4 | 273.1 |
| 10 7/8 | 276.2 |
| **11** | **279.4** |
| 11 1/8 | 282.6 |
| 11 1/4 | 285.8 |
| 11 3/8 | 288.9 |
| 11 1/2 | 292.1 |
| 11 5/8 | 295.3 |
| 11 3/4 | 298.5 |
| 11 7/8 | 301.6 |

| in | ft | in | mm |
|---|---|---|---|
| **12** | **1** | **0** | **304.8** |
| 12 1/8 | 1 | 0 1/8 | 308.0 |
| 12 1/4 | 1 | 0 1/4 | 311.2 |
| 12 3/8 | 1 | 0 3/8 | 314.3 |
| 12 1/2 | 1 | 0 1/2 | 317.5 |
| 12 5/8 | 1 | 0 5/8 | 320.7 |
| 12 3/4 | 1 | 0 3/4 | 323.9 |
| 12 7/8 | 1 | 0 7/8 | 327.0 |
| **13** | **1** | **0** | **330.2** |
| 13 1/8 | 1 | 1 1/8 | 333.4 |
| 13 1/4 | 1 | 1 1/4 | 336.6 |
| 13 3/8 | 1 | 1 3/8 | 339.7 |
| 13 1/2 | 1 | 1 1/2 | 342.9 |
| 13 5/8 | 1 | 1 5/8 | 346.1 |
| 13 3/4 | 1 | 1 3/4 | 349.3 |
| 13 7/8 | 1 | 1 7/8 | 352.4 |
| **14** | **1** | **0** | **355.6** |
| 14 1/8 | 1 | 2 1/8 | 358.8 |
| 14 1/4 | 1 | 2 1/4 | 362.0 |
| 14 3/8 | 1 | 2 3/8 | 365.1 |
| 14 1/2 | 1 | 2 1/2 | 368.3 |
| 14 5/8 | 1 | 2 5/8 | 371.5 |
| 14 3/4 | 1 | 2 3/4 | 374.7 |
| 14 7/8 | 1 | 2 7/8 | 377.8 |
| **15** | **1** | **0** | **381.0** |
| 15 1/8 | 1 | 3 1/8 | 384.2 |
| 15 1/4 | 1 | 3 1/4 | 387.4 |
| 15 3/8 | 1 | 3 3/8 | 390.5 |
| 15 1/2 | 1 | 3 1/2 | 393.7 |
| 15 5/8 | 1 | 3 5/8 | 396.9 |
| 15 3/4 | 1 | 3 3/4 | 400.1 |
| 15 7/8 | 1 | 3 7/8 | 403.2 |
| **16** | **1** | **0** | **406.4** |
| 16 1/8 | 1 | 4 1/8 | 409.6 |
| 16 1/4 | 1 | 4 1/4 | 412.8 |
| 16 3/8 | 1 | 4 3/8 | 415.9 |
| 16 1/2 | 1 | 4 1/2 | 419.1 |
| 16 5/8 | 1 | 4 5/8 | 423.3 |
| 16 3/4 | 1 | 4 3/4 | 425.5 |
| 16 7/8 | 1 | 4 7/8 | 428.6 |
| **17** | **1** | **0** | **431.8** |
| 17 1/8 | 1 | 5 1/8 | 435.0 |
| 17 1/4 | 1 | 5 1/4 | 438.2 |
| 17 3/8 | 1 | 5 3/8 | 441.3 |
| 17 1/2 | 1 | 5 1/2 | 444.5 |
| 17 5/8 | 1 | 5 5/8 | 448.7 |
| 17 3/4 | 1 | 5 3/4 | 450.9 |
| 17 7/8 | 1 | 5 7/8 | 454.0 |

# Alumasc Rainwater Systems The Steel Range

The NEW lightweight Steel rainwater range provides a contemporary, eco-friendly and cost effective alternative to uPVC gutters.



# Steel Rainwater Range – Product Summary



Circular Pipe



Half Round Gutter



Wrap-Around Gutter Outlet



# Steel Rainwater System – Product Summary

Alumasc Steel is a lightweight range of contemporary, eco-friendly and cost effective alternative to plastic gutters, without the risk of shrinking, leaking or colour fading. The gutter is available in a choice of four widths in the popular Half Round profile along with a connecting round downpipe system.

## Applications

- Ideal for traditional and modern buildings in both new build and refurbishment applications
- A competitive alternative to uPVC systems, with increased flow rates and longevity

## Features & Performance

- All gutter widths are deep half round providing maximum flow rates
- Higher flow capacity on outlets due to larger inlet funnels
- Gutter angle is 'deep drawn' and one piece giving greater flow capacity
- Lightweight, durable and non-corrodible
- Quick and easy installation
- Fascia bracket has a larger back plate for installation ease and 6 fixing points compared to 2 on other systems
- Internally seamed downpipe gives a smooth and modern finish
- Downpipe brackets have two concealed vertical fixing points
- Low maintenance

## Manufacture

- Manufactured to ISO 9001: 2008
- Manufactured to ISO 14001: 2004

## Colours & Finishes

- Available in steel in either a Galvanised or a Black Pre-coated Finish
- Also available to order in 6 other galvanised pre-coated colour finishes upon request
- The system is also available to order in plain zinc or copper
- All colour coated lengths are protected with an adhesive film to prevent damage on-site

## Installation & Fixing

- Dry Joint system without the need for additional silicone sealants
- Gutter lengths and angles are jointed with 'EPDM rubber sealed' connectors for fast and watertight installation
- Downpipes and offsets are push fit with 'Swaged' ends, again for fast and watertight installation
- Stop ends are push-fit with 'EPDM rubber sealed' inserts
- Fascia brackets have wide back plates and are multi holed for fast and ultra-secure fascia fixing

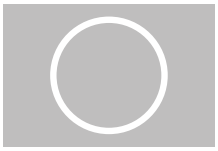
## Gutter Profile & Sizes



**Half Round**

100 x 70mm
125 x 80mm
150 x 90mm
190 x 90mm

## Pipe Profile & Sizes



**Half Round**

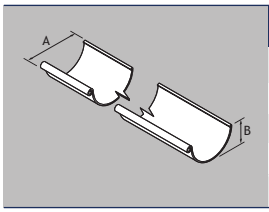
100 x 70mm
125 x 80mm
150 x 90mm
190 x 90mm





# Steel Gutters and Fittings

## Gutters




| Gutter Size | Gutter Length | A | B | T | Weight (kg) | Product Code |
|---|---|---|---|---|---|---|
| 100 (4”) | 3000mm | 100 | 75 | 0.6 | 3.24 | HRS40/3M |
| 125 (5”) | " | 125 | 80 | 0.6 | 3.63 | HRS50/3M |
| 150 (6”) | " | 150 | 90 | 0.6 | 4.32 | HRS60/3M |
| 190 (7.5”) | " | 190 | 100 | 0.6 | 5.19 | HRS75/3M |

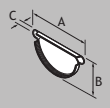
Note: T = Gutter Thickness (nominal +/- 0.1mm)

## Union Connector



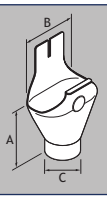

| Gutter Size | A | Product Code |
|---|---|---|
| 100 | 45 | HRS40/UC |
| 125 | 45 | HRS50/UC |
| 150 | 45 | HRS60/UC |
| 190 | 45 | HRS75/UC |

## Push-Fit Stop-Ends



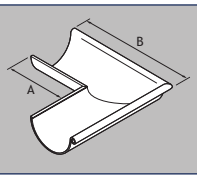

| Gutter Size | A | B | C | Product Code |
|---|---|---|---|---|
| 100 | 140 | 75 | 10 | HRS40/SE |
| 125 | 165 | 85 | 10 | HRS50/SE |
| 150 | 190 | 100 | 10 | HRS60/SE |
| 190 | 230 | 120 | 10 | HRS75/SE |

## Wrap-Around Gutter Outlet



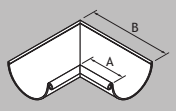

| Gutter Size | Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|---|
| 100 | 80 dia | 170 | 145 | 75 | HRS40/RO80 |
| 125 | 80 dia | 190 | 160 | 75 | HRS50/RO80 |
| 150 | 100 dia | 200 | 190 | 95 | HRS60/RO100 |
| 190 | 100 dia | 240 | 230 | 95 | HRS75/RO100 |

## 90° External Angle



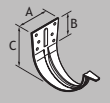

| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 | 160 | 295 | HRS40/EA90 |
| 125 | 145 | 300 | HRS50/EA90 |
| 150 | 110 | 295 | HRS60/EA90 |
| 190 | 125 | 345 | HRS75/EA90 |

## 90° Internal Angle




| Gutter Size | A | B | Product Code |
|---|---|---|---|
| 100 | 160 | 290 | HRS40/IA90 |
| 125 | 150 | 300 | HRS50/IA90 |
| 150 | 120 | 300 | HRS60/IA90 |
| 190 | 120 | 340 | HRS75/IA90 |

## Fascia Bracket

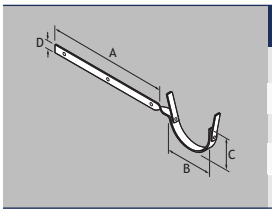



| Gutter Size | A | B | C | Product Code |
|---|---|---|---|---|
| 100 | 80 | 70 | 135 | HRS40/FB |
| 125 | 80 | 70 | 145 | HRS50/FB |
| 150 | 80 | 70 | 160 | HRS60/FB |
| 190 | 80 | 70 | 210 | HRS75/FB |

Note: The Steel range is available in a galvanised finish or in a polyester powder coated black finish. Product codes in the tables refer to the galvanised finish. For black painted please add the suffix /BLK.

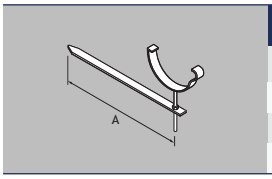
# Steel Pipes and Fittings

## Gutter Rafter Arm



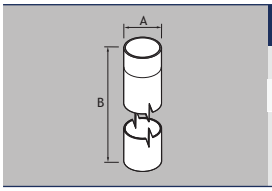

| Gutter Size | A | B | C | Product Code |
|---|---|---|---|---|
| 100 | 300 | 130 | 205 | HRS40/RB/SF |
| 125 | 300 | 130 | 225 | HRS50/RB/SF |
| 150 | 300 | 130 | 240 | HRS60/RB/SF |
| 190 | 300 | 130 | 255 | HRS75/RB/SF |

## Rise & Fall Bracket



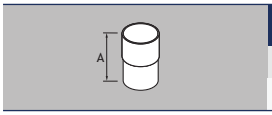

| Gutter Size | A | Product Code |
|---|---|---|
| 100 | 300 | HRS40/R&F |
| 125 | 300 | HRS50/R&F |
| 150 | 300 | HRS60/R&F |
| 190 | 300 | HRS75/R&F |

## Pipes



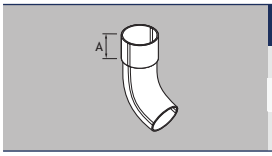

| Pipe Size (A) | Pipe Length (B) | Product Code |
|---|---|---|
| 80 dia | 3000mm | SRW1/3M |
| 100 dia | 3000mm | SRW2/3M |

## Downpipe Connector



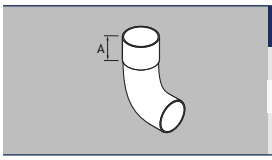

| Pipe Size | A | Product Code |
|---|---|---|
| 80 dia | 118 | SRW1/DC |
| 100 dia | 117 | SRW2/DC |

## Offset Bend 70°



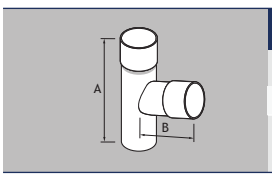

| Pipe Size | A | Product Code |
|---|---|---|
| 80 dia | 34 | SRW1/OSB/70 |
| 100 dia | 30 | SRW2/OSB/70 |

## Offset Bend 90°




| Pipe Size | A | Product Code |
|---|---|---|
| 80 dia | 43 | SRW1/OSB/90 |
| 100 dia | 34 | SRW2/OSB/90 |

## Branch 72°

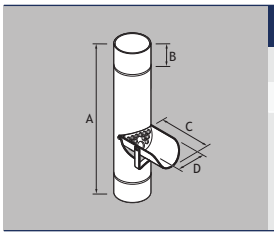



| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 80 dia | 280 | 72 | SRW1/BR/72 |
| 100 dia | 285 | 55 | SRW1/BR/72 |

Note: The Steel range is available in a galvanised finish or in a polyester powder coated black finish. Product codes in the tables refer to the galvanised finish. For black painted please add the suffix /BLK.

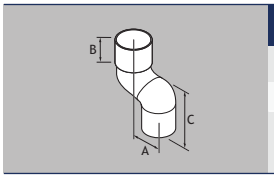
# Steel Pipes and Fittings

## Rainwater Diverter



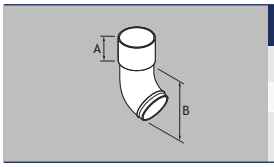

| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 80 dia | 400 | 57 | 135 | 78 | SRW1/RDIV |
| 100 dia | 400 | 53 | 155 | 98 | SRW2/RDIV |

## Fixed Offset



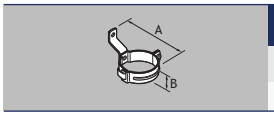

| Pipe Size | A | B | C | Product Code |
|---|---|---|---|---|
| 80 dia | 64 | 60 | 160 | SRW1/FOS/60 |
| 100 dia | 68 | 60 | 195 | SRW2/FOS/60 |

## Shoe



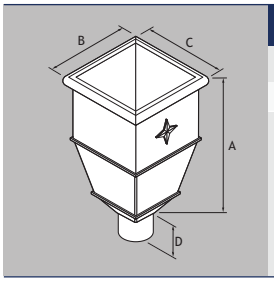

| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 80 dia | 36 | 127 | SRW1/SH |
| 100 dia | 29 | 155 | SRW1/SH |

## Pipe Clip



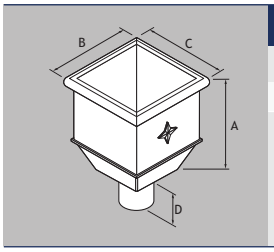

| Pipe Size | A | B | Product Code |
|---|---|---|---|
| 80 dia | 120 | 25 | SRW1/PC |
| 100 dia | 135 | 25 | SRW1/PC |

## Hopper Head (Galvanised)




| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 80 dia | 385 | 220 | 220 | 80 | SRW1/HH/GS |
| 100 dia | 385 | 220 | 220 | 80 | SRW2/HH/GS |

## Hopper Head (Black Coated)




| Pipe Size | A | B | C | D | Product Code |
|---|---|---|---|---|---|
| 80 dia | 300 | 230 | 230 | 60 | SRW1/HH/BCS/BLK |
| 100 dia | 300 | 230 | 230 | 60 | SRW2/HH/BCS/BLK |

Note: The Steel range is available in a galvanised finish or in a polyester powder coated black finish. Product codes in the tables refer to the galvanised finish. For black painted please add the suffix /BLK.

# Alumasc Rainwater Systems Steel Range Supplementary Information

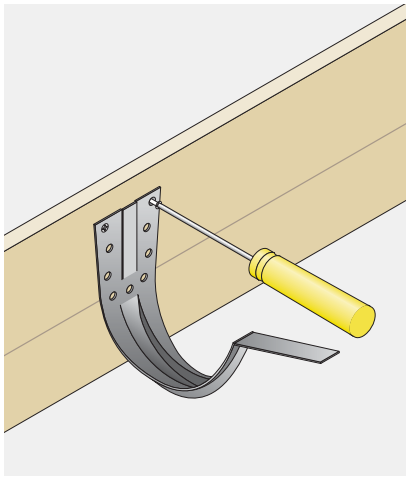
Essential background information to ensure that an appropriate and correct steel rainwater system is installed.



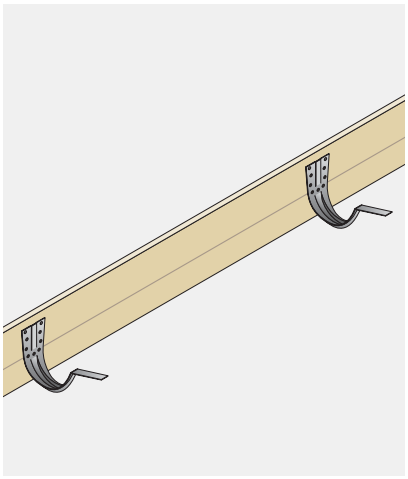
# Installation – Gutters

Alumasc steel gutters are available in the half round profile in four sizes with a range of brackets to accommodate all types of eaves. The system is dry jointed without the need for additional silicone sealant.

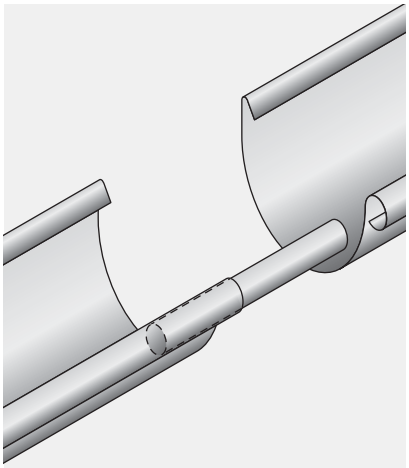
The gutter range can be connected to the steel pipework system and secured by standard pipe clips. The assembly and installation must be considered individually depending on the project, although general aspects of preparation are common to all as shown below.



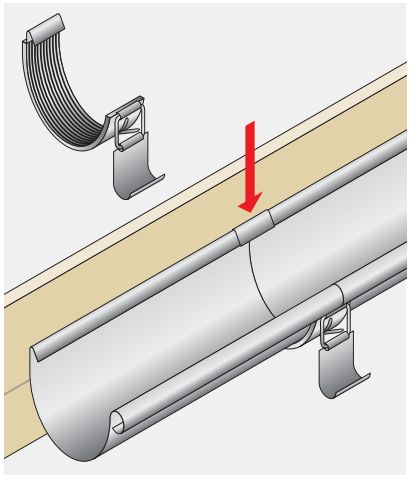
1. Generally position the fascia brackets at 915mm centres, using at least 3 brackets per gutter length. Use 2 screws on both the left and right fixing options and 1/no underneath the gutter securing tab.



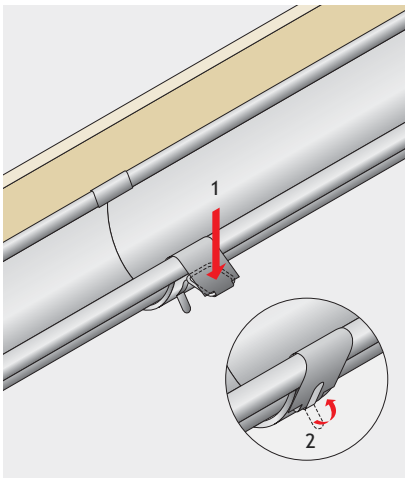
2. Use a string line to set out your fascia brackets along the gutter run allowing for a fall of 1:600 to 1:350 (max).



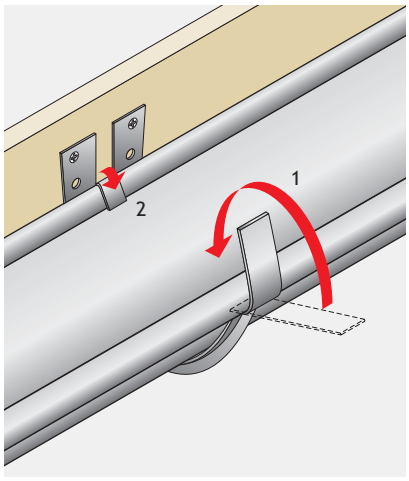
3. A bead connector is used to join two lengths of gutter. Insert the connector into the front roll of each gutter length. Allow for a 4mm expansion gap.



4. An EDPM rubber sealed union connector is used to connect the gutter lengths and angles together. Locate the union connector over the rear edge of the gutter.




5. Locate the clasp over the front roll edge of the gutter. Push down on top of the clasp and squeeze the clasp shut. Fold the locking tab over to fully secure.



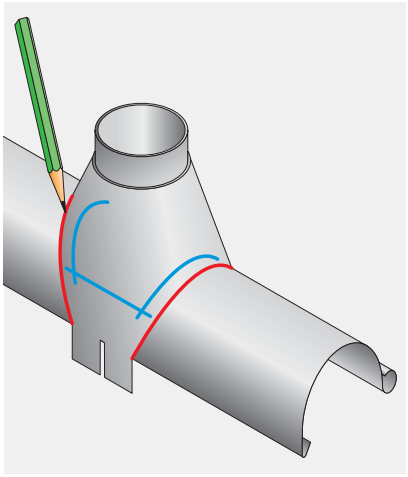

6. Locate the gutter into the fascia bracket and seat level, then fold the front tab of the fascia bracket around the front roll and into the gutter. Fold the rear tab of the fascia bracket down and over the rear edge of the gutter.

For further information or assistance please contact The Rainwater Technical Team on Tel 01744 648400

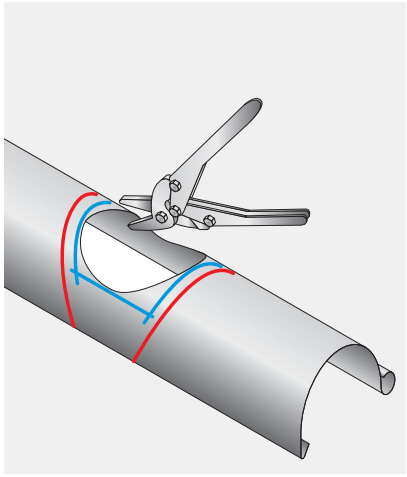
# Installation – Rainwater Pipes

Alumasc steel downpipes are available as a circular profile in 2 sizes with a range of pipe clips and fittings to accommodate all types of installation situations. The downpipes and offsets are push-fit with 'swaged' ends, again for fast and watertight installation.

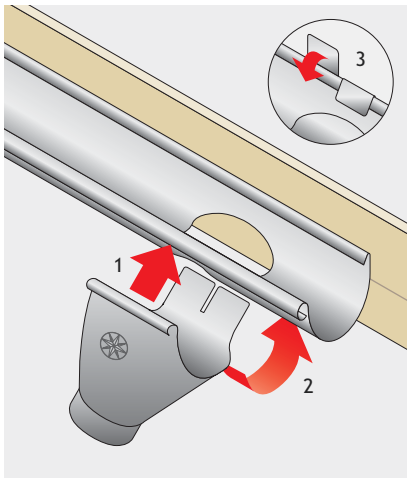
The assembly and installation must be considered individually depending on the project, although general aspects of preparation are common to all as shown below.



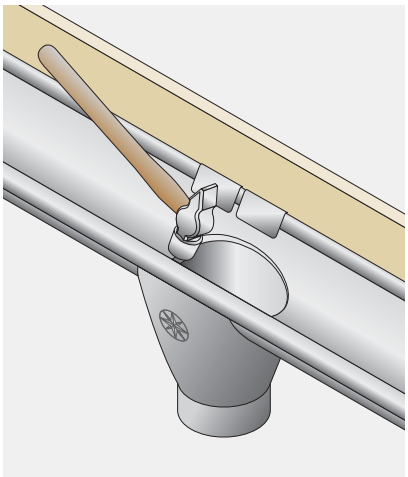
1. When installing a 'wrap around outlet' mark the desired location of the outlet by drawing a line either side of the outlet along its edge. Draw a further line 20mm inside of the outer lines and join these inner lines together in an oval pattern. This becomes the marking for the cut out hole.



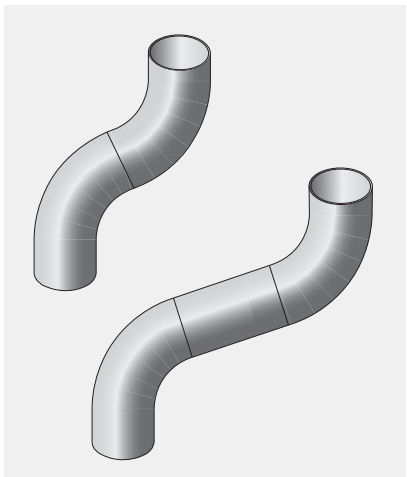
2. Use a hacksaw to make an initial hole in the gutter, and then use a set of tin snips to cut out the inner hole that you have marked out.



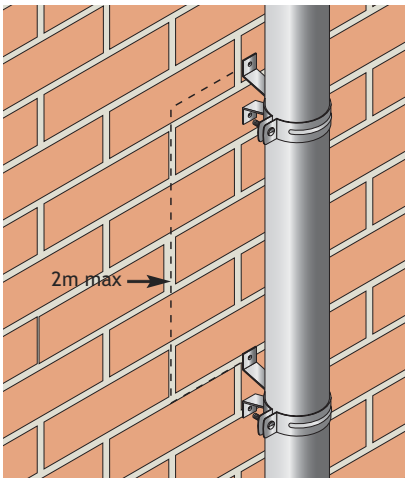

3. Attach the outlet to the gutter and fold the rear tabs of the outlet over the rear edge of the gutter, making sure the outlet is aligned correctly to accept the downpipe.



4. Tap the inner rough edges of the hole that was cut in the gutter, down into the outlet, to ensure a smooth flow of water.



5. Offsets are achieved using 2/no 70° bends, with larger offsets being made by inserting a pipe length between the two bends.




6. Downpipes should be installed using at least 2/no pipe clips per length. Mark out the clips locations and level with a sprit level or plumb line. Open the tightening screw to allow the pipe to be inserted, close the clip and re-tighten, making sure not to over tighten and damage the downpipe.

For further information or assistance please contact The Rainwater Technical Team on Tel 01744 648400

# Rainwater System Design

Alumasc Technical Services is a fully experienced team of Rainwater specialists who use the latest CAD technology and calculation tools to provide an unrivalled support service to Architects, Designers and Contractors.

## The Alumasc Rainwater Drainage Design Service

Alumasc Technical Services use dedicated design software in conjunction with the requirements of *BS EN 12056:2000: Gravity drainage systems inside buildings - Part 3* to calculate the most appropriate Alumasc rainwater system to suit project requirements.

The gutter flow software automatically checks the capacity of downpipes used and suggests the minimum size to which downpipes can be sized. Contact Alumasc for further information.

## Calculation Criteria

Calculation of the most efficient drainage solution takes into consideration the following criteria:

- Catchment area
- Local rainfall intensity
- Building life and safety factor
- Size and flow rate of gutters
- Frequency and size of outlets and downpipes

## Sizing of Gutters and Downpipes

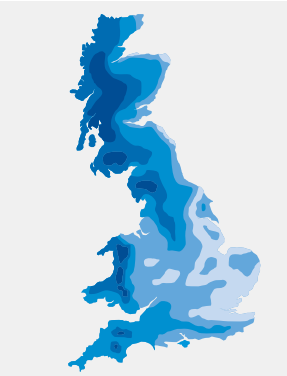
The level of rainfall a given roof drainage system should cope with is based on the position of the gutter, the potential use of the building and its projected lifespan. All true eaves gutters (external) are designed using a 1 year storm event. This is generally accepted because overflow from an external eaves gutter will fall clear of the building, which is not normally a problem. Any gutter which is classed internal, even if it is at the eaves, should be designed for an intensity based on the building life and a suitable factor of safety.

This factor will vary from 1.5 for conventional buildings to 4.5 for very important structures. For most buildings a 60 year life and safety factor of 1.5 would be the most suitable (90 year protection life).

All the parameters of flow calculations cannot be captured using a single formula. The guide below provides a basic method for calculating flow requirements. For accurate project specific specification advice on rainwater flow calculations contact Alumasc Technical Services.

### Step 1

**Geographical Location and Rainfall Intensity Maps**

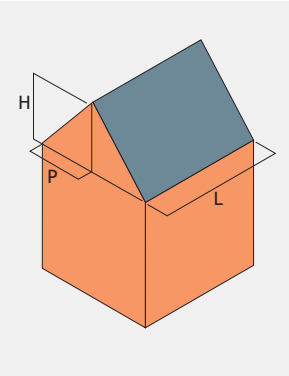


BS EN 12056-3: 2000 contains maps showing rainfall intensity in litres/second per $m^2$ for 1, 5, 50 and 500 year storms of 2 minute duration.

(All external gutters designed for 1 year event).

### Step 2

**Calculating Catchment Area**




CA = (P+H/2) x L

CA = Catchment area in square metres

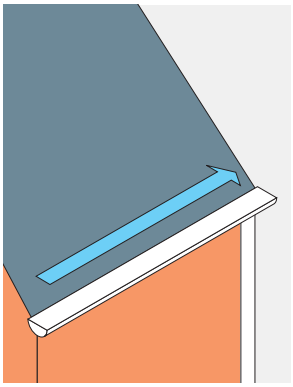
P = Horizontal distance between eaves and ridge

H = Height of roof

L = Length of eaves

### Step 3

**Frequency and Positioning of Outlets/Downpipes**



Calculate the number of outlets per run.

### Step 4

**Calculate Flow Requirements**

**Overall Rainfall**

Catchment Area (CA) x Rainfall Intensity (RI) = Overall Rainfall (OR)

**Flow Rate Per Outlet**

Overall Rainfall (OR) ÷ Number of Outlets = Flow Rate Per Outlet

Choose Gutter/Outlets according to published Flow Rate capacities.

**Note:**

Depending on building type, a safety factor should be allowed for the sizing of internal gutters. Contact Alumasc Technical Services for further information.

alumasc

Available on the iPad. App Store

## Technical Support

Alumasc's new Drainage Design Calculators are available as a download from the Alumasc Rainwater website. www.alumascrainwater.co.uk

# NBS Specification

A typical NBS Specification for Alumasc steel gutters and downpipes is provided below. A full range of NBS specifications are available via Alumasc's online NBS Specification Builder at www.alumascrainwater.co.uk.
For project specific specification advice, contact Alumasc Technical Services.

## R10 Rainwater Drainage Systems



### GENERAL

- Gravity Rainwater Drainage System.
- Rainwater outlets, gutters, pipework and accessories as per detail sections below.

### SYSTEM PERFORMANCE

- Design Standard: To BS EN 12056-3:2000, clauses 3-7 and National Annexes.
- Collection and Distribution of Rainwater: Complete, and without leakage or noise nuisance.
- Design Parameters: Design rate of rainfall as per BS EN 12056-3:2000, National Annex NB.2 - Category 1

### PRODUCTS (TYPICAL SPECIFICATION)

ALUMASC STEEL HALF ROUND GUTTER (100mm)

311 ALUMASC STEEL GUTTERS

Gutters and fittings to: BS EN 12056-3: 2000
Manufacturer: Alumasc Exterior Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside WA9 4JG.
Tel: 01744 648400, Fax: 01744 648401, Email: info@alumasc-exteriors.co.uk

| | |
|---|---|
| Reference: | Alumasc steel rainwater system |
| Profile: | Half Round |
| Size: | 100mm |
| Outlet Size: | 80mm |
| Type/grade: | Made from Mild Steel |
| Finish: | Galvanised or polyester powder coated to BS EN 12206-1:2004 |
| Colour: | To be advised |
| Jointing: | External union clips placed over each butt joint and locked with a clip to the front of the gutter. |
| Fixing: | The gutter fixed with bracket fixed at maximum 1000mm centres and at each fitting. |




Create Alumasc Rainwater System NBS specifications by selecting the required product range, profile, size and finish by visiting:

www.alumascrainwater.co.uk

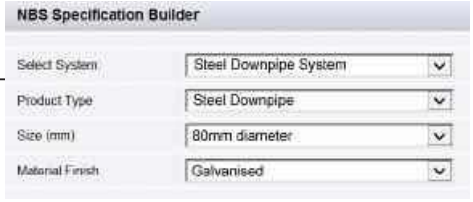
### PRODUCTS (TYPICAL SPECIFICATION)

ALUMASC STEEL DOWNPIPE (80mm diameter)

370 ALUMASC STEEL PIPEWORK FOR EXTERNAL USE:

Pipes, fittings and accessories to: BS EN 12056-3: 2000
Manufacturer: As above

| | |
|---|---|
| Reference: | Alumasc steel downpipe system |
| Size: | 80mm diameter |
| Type/grade: | Mild Steel |
| Finish: | Galvanised or polyester powder coated to BS EN 12206-1:2004 |
| Colour: | To be advised |
| Fixing: | Pipe clip fixed at maximum 2.0m centres. Plug and screw to wall with number 12 x 50mm round head twin thread screws and washers bright zinc plated to BS 1706:1960 Class. |
| Accessories: | Bends, Branches, Access Pipes, Offsets, Shoes, Rainwater Heads, Pipe Clips. |



# Other Alumasc & Harmer Rainwater Products

In addition to Aluminium, cast Iron and steel rainwater systems, and traditional soil and waste systems Alumasc Rainwater and Harmer Drainage offers the following products ranges, shown below. For detailed information on these systems, please contact Alumasc Technical services or visit www.alumascrainwater.co.uk / www.harmerdrainage.co.uk

## Rainwater Harvesting



Stormsaver®
right as rain

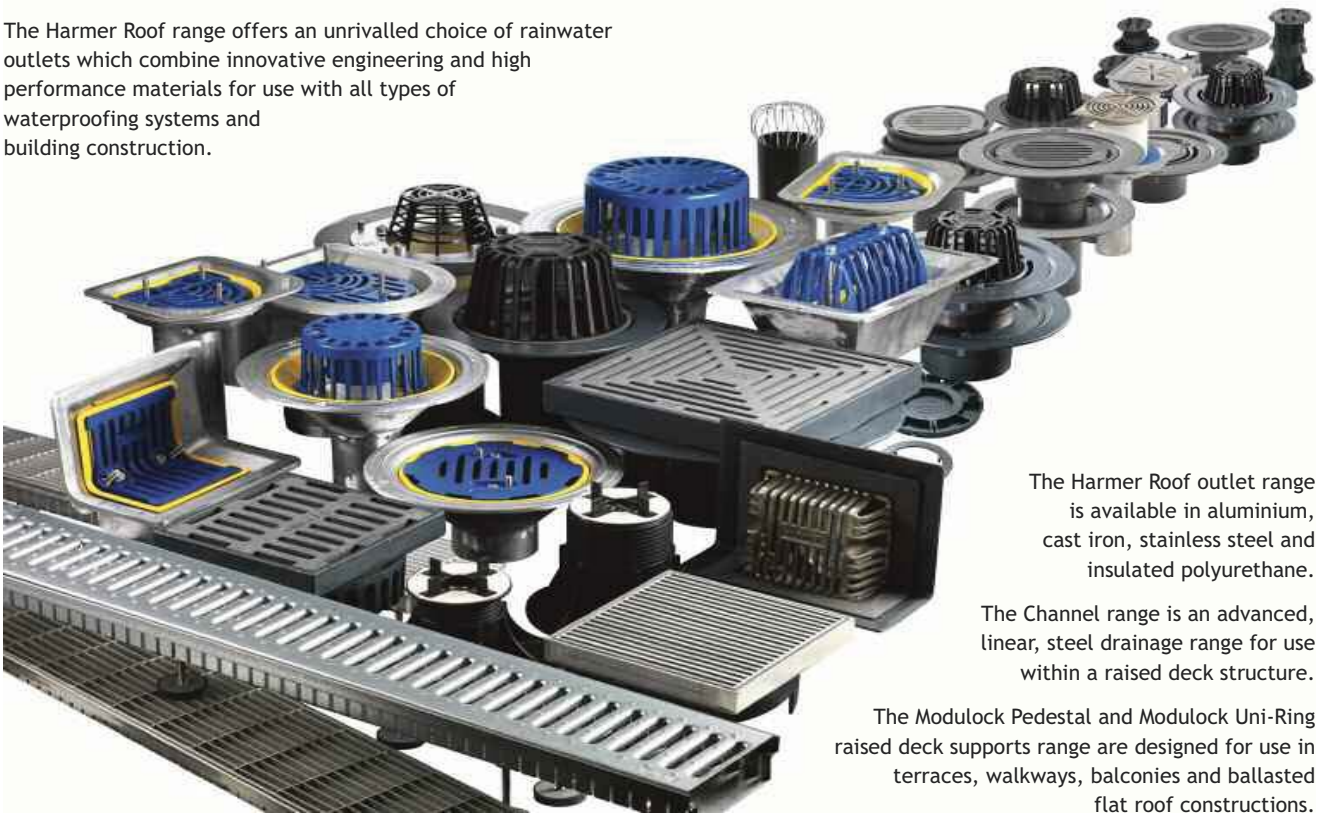
**Stormsaver Rainwater Harvesting Systems**

All Alumasc Stormsaver commercial rainwater harvesting systems are developed to meet the client's site-specific requirements. The individual requirements of the system will be based on supply and demand rates being calculated as part of the building design.

Whether you're building your own home, a property developer looking to harness the latest in environmentally-sensitive technology, a builder's merchant or even a Housing Association, **Monsoon®** from Stormsaver is the ideal domestic rainwater harvesting system.

## Harmer Roof Outlets

The Harmer Roof range offers an unrivalled choice of rainwater outlets which combine innovative engineering and high performance materials for use with all types of waterproofing systems and building construction.



The Harmer Roof outlet range is available in aluminium, cast iron, stainless steel and insulated polyurethane.

The Channel range is an advanced, linear, steel drainage range for use within a raised deck structure.

The Modulock Pedestal and Modulock Uni-Ring raised deck supports range are designed for use in terraces, walkways, balconies and ballasted flat roof constructions.

To request a brochure for any of these systems please call Tel: 0808 1002008

# Other Harmer Drainage Products

## Harmer SML Soil and Waste System

Harmer SML is a lightweight, dry-jointed cast iron soil and waste system that is Agrément certified and fully compliant with BS EN 877.

This high performance pipework system combines an excellent fire classification with the latest acoustic performance requirements for building materials. Harmer SML has a proven track record of use over the lifetime of the building and is manufactured using 95% recycled material.

The Harmer SML system consists of coated, socketless cast iron pipes and fittings simply joined with either ductile iron or stainless steel rubber-lined couplings, allowing ease of installation. The range also includes bracketry for restraining the pipework vertically and supporting it horizontally, along with a choice of special connectors for linking with other materials.





Harmer SML Pipes



Harmer SML Access Fittings



Harmer SML Couplings



Harmer SML Branches

## Harmer Floor Drains



Harmer Floor Drains are designed for use in interior drainage applications and all types of flooring. The versatile, fully engineered range is available rapped or untrapped with an extensive choice of stainless steel or nickel bronze.

Finely engineered manufacture and enhanced features bring many benefits, including corrosion resistance and durability, with smooth and attractive finishes that are tough and hygienic.

## Harmer Shower Drains



Harmer Shower Drains offer and uncompromising blend of imaginative design, high performance materials and innovative engineering. A choice of high performance shower drains available in with Aluminium or ABS antimicrobial trapped shower drains.

The range includes a wide range of caps and grates available in stainless steel, nickel bronze, chromium plate and polyester coated aluminium to complement and enhance any shower or wet room design.

To request a brochure for any of these systems please call Tel: 0808 1002008

# Alumasc Premium Products – All Brands

Alumasc provides an unrivalled range of premium products for building exteriors and drainage, along with high levels of technical expertise and project support. Our wealth of experience combined with networks of approved installers, merchant stockists and a choice of warranty options ensures we provide appropriate product and system solutions for all types of buildings.



Alumasc is the UK's leading manufacturer of aluminium rainwater systems and offers a complete range of gutters, downpipes and fascia/soffits for both contemporary and traditional architecture.

Alumasc's cast iron rainwater system is for historic and restoration sites, with bespoke designs available to match or replace existing installations.

**ALUMASC**
RAINWATER SYSTEMS

- Aluminium Rainwater Systems
- Aluminium Fascias/Soffits/Copings
- Cast Iron Rainwater Systems
- Steel Rainwater Systems

**www.alumascrainwater.co.uk**



Alumasc's Harmer brand provides market leading solutions for rainwater handling and building drainage.

Aluminium roof, floor and shower drains are complemented by specialist drainage ranges in plastic. A choice of cast iron pipework systems is available for internal and rainwater drainage. Specialist rainwater management systems and paving and deck supports are also available.

**HARMER**
DRAINAGE SYSTEMS

- Roof, Floor and Shower Drains
- Cast Iron Soil & Waste Systems
- Rainwater Management Systems
- Paving and Decking Supports

**www.harmerdrainage.co.uk**



Alumasc is a specialist provider of world class waterproofing and green roof systems.

The range includes Derbigum and Euroroof high performance flat roof membranes, Euroroof cold applied membranes, Firestone TPO and EPDM single ply membranes, Hydrotech structural waterproofing and ZinCo Extensive, Biodiverse, Semi-intensive and Intensive green roofs.

**ALUMASC**
ROOFING SYSTEMS

- Flat Roof Membranes
- Single Ply Membranes
- Structural Waterproofing
- Green Roof Systems

**www.alumascwaterproofing.co.uk**



Alumasc is a specialist in the design and development of thermally efficient insulated render systems. Alumasc's external wall insulation systems are available with a choice of insulating material and silicone, mineral or polymer-modified decorative render finishes.

**ALUMASC**
INSULATED RENDERS

- External Wall Insulation
- Render Only Systems
- Brick Slips & Specialist Systems
- Decorative Coatings

**www.alumascfacades.co.uk**

ALUMASC

RAINWATER SYSTEMS

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