



PRODUCT GUIDE

September 2019

Leaders in innovative aluminium rainwater,
fascia, soffit and coping solutions

Prestige house
Leighton Buzzard, Bedfordshire



Lawley Farm, Telford,
Shropshire



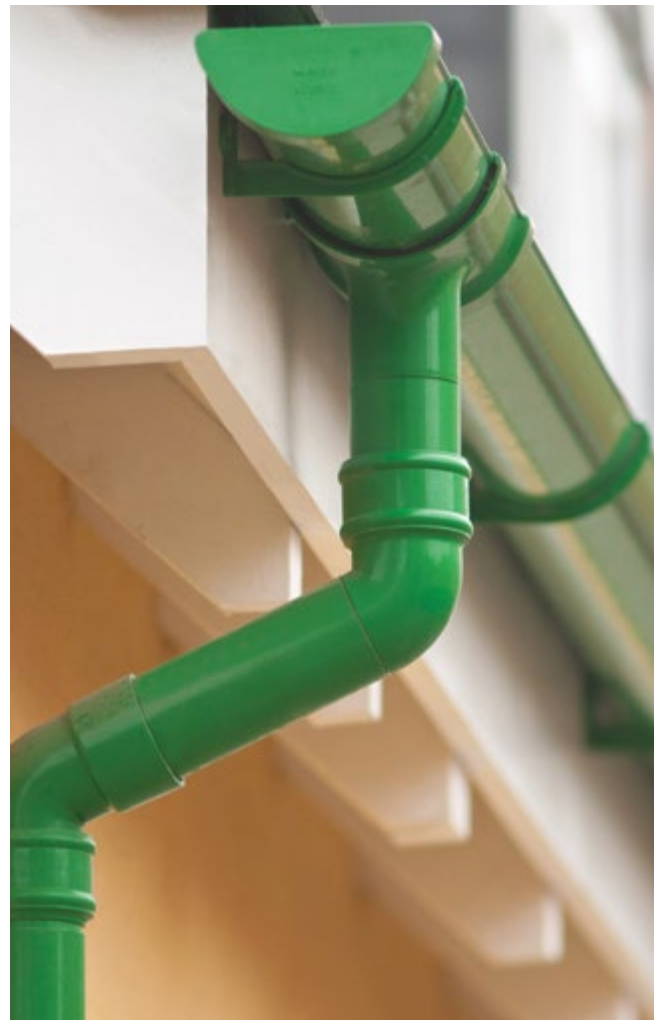
Prestige new build, Hampshire

St Michael's C.E Primary School,
Southfields, London



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Marley Alutec is the UK leader in innovative aluminium rainwater and eaves solutions; we pride ourselves in offering a complete service and product solution tailored to each projects needs.

We are part of Aliaxis, a global leader in plumbing, drainage and sanitary solutions.

Sustainable product design, quality and performance

Alutec is committed to designing the most sustainable, durable and high performance systems possible. Sustainable design creates products with a lower carbon footprint, longevity and low maintenance. All Alutec eaves solutions have a functional life expectancy of 50 years or more, all are manufactured using only marine grade aluminium, and require minimal maintenance.

The performance, quality and longevity of all products are backed by the knowledge that Alutec is a long established and financially sound company and part of the Aliaxis group, ensuring complete peace of mind for specifiers and building owners.

Technical support

Alutec's Technical Services team has many years of experience in all aspects of eaves and roof drainage design for both modern and traditional building methods.

We are able to assist with:

- Correct system choice
- Roof drainage design calculation
- Installation advice
- Bespoke design guidance

Building Information Modelling (BIM)

Alutec is at the forefront of product and service innovation and has a full suite of BIM files for the rainwater and Evoke fascia and soffit ranges; to download them, visit www.marleyalutec.co.uk

Product availability

Alutec products are available through all major national and regional building, plumbing and roofing merchants.

Standards

All Alutec systems are manufactured to and in excess of the appropriate BS or EN Standards.

ISO 14001

Alutec is committed to continually reducing its environmental impact across all its business activities and is accredited to ISO 14001.

CPD Service



Alutec is a leading CPD provider for aluminium rainwater, fascia, soffit and coping systems. Our RIBA accredited CPD covers all aspects of eaves design, selection and correct installation. To date we have presented to over 5,000 construction industry professionals.

Products

Eaves gutters and downpipes

Marley Alutec's total eaves solutions are available in a wide variety of aesthetics to suit all styles of property.



evolve

- As easy to install as PVC
- Industry leading flow rates reducing number of downpipes required
- Cost effective Heritage Black finish emulates appearance of cast iron



traditional

- Suitable for listed buildings and conservation areas
- Ideal for replacement of old cast iron system or reflect traditional styling of a new building
- Manufactured to original British Standard cast iron dimensions (BS 8530).



aligator

- Sleek and modern solution for rainwater disposal
- Snap fit boltless jointing systems reduces installation times by up to 40% compared to traditional bolted systems
- Manufactured using marine grade aluminium to withstand corrosion even in the harshest of environments

Fascia, soffit and coping systems

evoke

Our Evoke range complements perfectly the long-life expectancy and low maintenance of Marley Alutec aluminium gutter and downpipe systems.

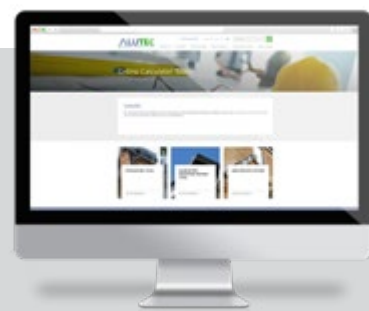
- Installs just like PVC and faster than sheet aluminium systems
- No need for specialist trades or tools. Can be cut, drilled and bent (formed) using standard carpentry skills and tools
- Can be fixed directly to roof truss ends, eliminating the expensive timber backers necessary when installing sheet aluminium system
- 12 different PVDF paint colour options that will naturally resist the buildup of dust, grime and algae; keeping maintenance costs to a minimum.

Drainage outlets

elite

Our Elite range of roof and balcony drainage outlets are compatible with all waterproofing membranes and build-ups.

- Compatible with ALL waterproofing systems
- Unrivalled flow performance
- Saves on project costs by reducing overall downpipe numbers
- Prevents cold bridging
- Unique and reliable clamping feature
- Simple and fast installation
- Anti-Vortex dome grate available
- Accompanying online roof drainage design software



Our **new Online Calculators** provide fast and simple roof drainage design, while ensuring full compliance with BS EN12056-3 rainwater design standard – a full set of rainwater drainage design calculations are provided confirming the suitability of products.

See page 90 for full details. Our Technical Team can be contacted on **01234 359438**.



Bedford Lodge Hotel, Newmarket, Suffolk

Aluminium – long lasting, low maintenance, sustainable

Made from marine grade aluminium, Alutec's products offer the very best in terms of durability, lasting 50 years or more with minimal maintenance.

The properties of aluminium - a sustainable material

- Low whole life costs – compared to other materials
- Infinitely recyclable – 75% of all the aluminium produced since 1888 is still in use today
- Green energy – hydroelectric or geo-thermal power accounts for 60% of processing requirements

Lightweight, strong and long-lasting

Aluminium is a very light metal, about 65% lighter than steel or cast iron. It has a very high strength to weight ratio and excellent corrosion resistance. One of the oldest recorded uses of aluminium is the statue of Eros in London, cast in 1893.

Highly corrosion resistant Aluminium naturally generates a protective oxide coating. Should the surface be damaged, the aluminium simply oxidises again to protect itself. Add a polyester powder coating to provide an attractive and durable finish. This contrasts with steel, where galvanising only offers limited protection and cast iron, which requires regular repainting.

Infinitely recyclable

When the old Wembley Stadium (built in 1923) was demolished, 96% of the aluminium was recovered for recycling. Aluminium can be recycled again and again without loss of quality. The re-melting of aluminium requires little energy; it saves up to 95% of the energy required for primary aluminium production.

Responsible sourcing

Aluminium is the World's third most abundant element. 97% of all bauxite mines in the World operate rehabilitation projects and two thirds of the employees are from the local community. The amount of electrical energy required to produce aluminium has dropped by 70% since the 1880's and 60% of that electricity is provided from renewable green energy.



Colour Options

All Alutec systems are available with an architectural grade polyester powder coat (PPC) paint finish.

Architectural grade PPC paint finishes are designed for exterior use and maintain their colour and gloss level for longer. Paint's life expectancy is enhanced further by Alutec's choice of aluminium.

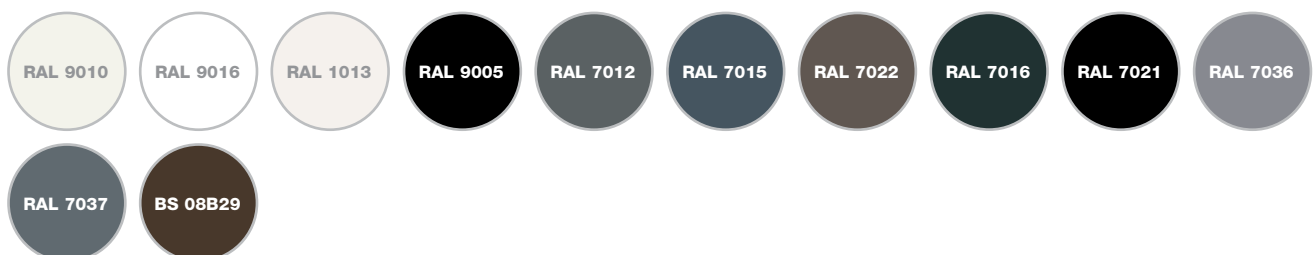
We only use the highest quality marine grade aluminium, greatly increasing durability. The colour range includes Heritage Black, which has a textured surface to accurately replicate the appearance of traditional cast iron gutters and downpipes.

Gutters and Downpipe System Colours



Additional colours, finishes and gloss levels are available, price on application. This chart is a representation of the actual colours, for exact match please ask for sample plates.

Fascia, Soffit and Coping System Colours



PVDF paint system to a 30-40% gloss level.

Residential property, Johnshaven, Scotland



Thursford Castle, Thursford



GUTTERS







Evolve Gutter Systems



Evolve Ogee



Evolve Half Round



Evolve Deepflow



Evolve Box

Our range of Evolve aluminium guttering systems combine all the benefits of marine grade aluminium with installation as easy as PVC guttering.



Features of the Evolve range

Functional life expectancy of 50 years or more. Minimal maintenance, only periodic aesthetic cleaning required. Concealed fascia brackets on Box and Ogee profiles for a sleek and modern aesthetic.

Unique patented Jurajoint system for quick, simple and secure jointing.

Durable and strong - Marine grade extruded aluminium gutter sections and high pressure castings makes Evolve more corrosion resistant than steel or cast iron systems.

Fade resistant architectural grade polyester powder coat paint finish.

High flow rates reducing the number of downpipes required.

Available at a lower price in the popular Heritage Black finish, with a textured surface to emulate the appearance of traditional cast iron.

19 standard colours.

Over 65% lighter than cast iron, making Evolve easier and safer to handle and install.

Land at End Rigg, self-build property, Tealing, Angus, Scotland



Swansea, Glamorgan

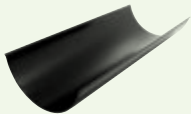
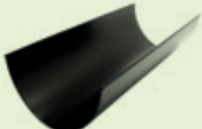
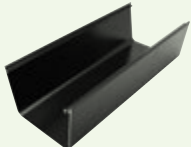
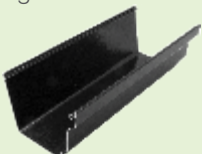


Valleydale Mews, Northumberland



Evolve Gutter Systems

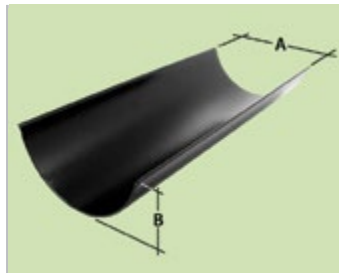
Product Selector

Profile	Size	Typical building types	Compatible downpipes	Maximum flow rate (Centre outlet)	Maximum roof area (per downpipe) ¹
	120mm	Small – medium residential	Evolve 63mm Ø	1.8 l/s	87m ²
	125mm	Medium to large residential and small commercial	76mm Ø	4.9 l/s	232m ²
			Flush-fit 76mm Ø	4.9 l/s	232m ²
	130x85mm	Medium to large residential	Flush-fit 76mm Ø	6.0 l/s	286m ²
			76mm Ø	6.0 l/s	286m ²
		Small to medium commercial	Flush-fit 72x72mm	7.0 l/s	333m ²
			Traditional 72x72mm	7.0 l/s	333m ²
	130x95mm	Medium to large residential	Flush-fit 76mm Ø	6.0 l/s	286m ²
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¹: The above flow rates are based on physical tests carried out in accordance with BS EN 12056-3. See page 90 for details of our online drainage calculators and our technical support services.



These products are compatible with all 63mmØ and 76mmØ downpipes



Gutter 3m

Code	A	B
GT513	123	51



Union

Code	A
GT520	60



Fascia bracket

Code	A	B	C	D
GT580	135	66	67	38



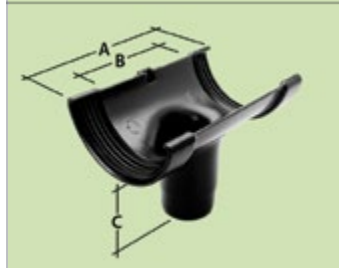
Angle 90°

Code	A	B
GT532	135	28



Angle 135°

Code	A	B
GT537	64	28



Outlet

Code	A	B	C	Fascia to outlet centre
GT522	200	140	62	67
GT523	200	140	52	67



Stop end (internal)

Code	A
GT550	25



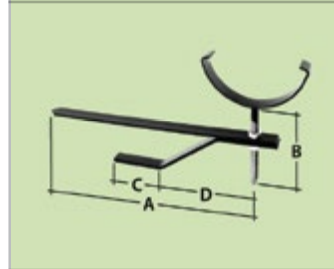
Stop end (external)

Code	A
GT555	31



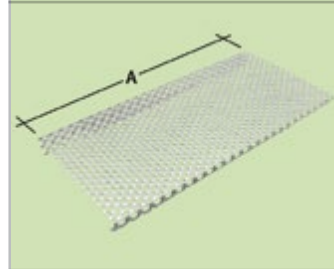
Fixed rafter arm

Code		A	B
AT73	Side	20	240
AT76	Top	20	240



Rise & fall bracket

Code	A	B	C	D
AT93	360	125	80	168



Leafguard

Code	A
SL70	1220

Mill Finish



Compatible fixing screws

Roundhead fascia bracket screw

Code	Description
SC201	32mm x No. 10

Mill Finish



Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.

These products are compatible with 76mmØ downpipes

	<h3>Gutter 3m</h3> <table border="1"> <thead> <tr> <th>Code</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>GE513</td> <td>128</td> <td>75</td> </tr> </tbody> </table>	Code	A	B	GE513	128	75		<h3>Stop end (external)</h3> <table border="1"> <thead> <tr> <th>Code</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>GE555</td> <td>39</td> </tr> </tbody> </table>	Code	A	GE555	39										
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St Catherine's View
Dementia Care Home,
Winchester, Hampshire



Hornsea School and Language College,
Eastgate, Hornsea, Yorkshire

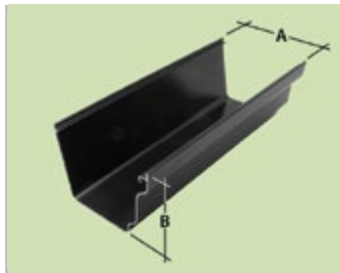


These products are compatible with all 76mmØ and 72x72mm downpipes

	<h3>Gutter 3m</h3> <table border="1"> <thead> <tr> <th>Code</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>GB513</td> <td>131</td> <td>85</td> </tr> </tbody> </table>	Code	A	B	GB513	131	85		<h3>Stop end (internal)</h3> <table border="1"> <thead> <tr> <th>Code</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>GB550</td> <td>35</td> </tr> </tbody> </table>	Code	A	GB550	35				
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These products are compatible with all 76mmØ and 72x72mm downpipes



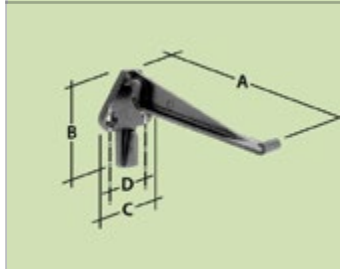
Gutter 3m

Code	A	B
GY513	131	95



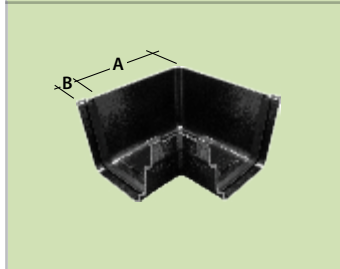
Union

Code	A
GY520	72



Fascia bracket

Code	A	B	C	D
GY580	138	83	57	38



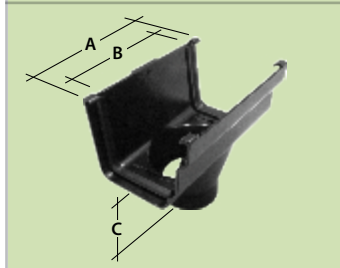
Angle 90°

Code	A	B
GY530 Internal	145	35
GY531 External	35	36



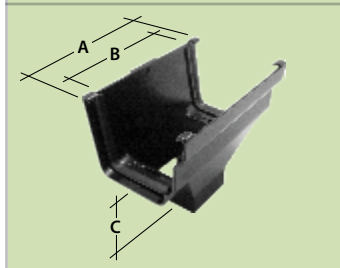
Angle 135°

Code	A	B
GY535 Internal	60	35
GY536 External	34	35



Outlet (76mm Ø)

Code	A	B	C	Fascia to outlet centre
GY523	200	130	69	69



Outlet (72x72mm)

Code	A	B	C	Fascia to outlet centre
GY525	200	130	69	67



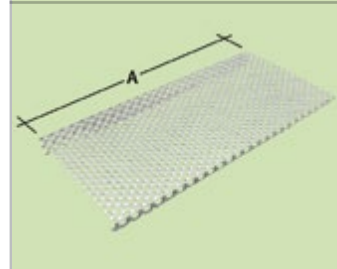
Stop end (internal)

Code	A
GY558 Right hand	35
GY557 Left hand	35



Stop end (external)

Code	A
GY555 Right hand	37
GY550 Left hand	37



Leafguard

Code	A
SL77	1220

Mill Finish



Compatible fixing screws

Roundhead fascia bracket screw

Code	Description
SC201	32mm x No.10

Mill Finish



Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



Church of St John the Baptist, Midlands



Temple Grove, East Sussex



Traditional Moulded Ogee



Traditional Half Round



Traditional Victorian Ogee

Using marine grade aluminium for ultimate longevity and low maintenance, three distinct bolted gutter systems manufactured to original British Standard cast iron dimensions BS8530.



Features of the Traditional range

Functional life expectancy of 50 years or more with minimal maintenance, only periodic aesthetic cleaning required

Manufactured to BS 8530:2010, the design standard for Traditional Half Round, Victorian Ogee and Moulded Ogee aluminium rainwater systems

Each profile available in three different sizes

Durable and strong - Manufactured from marine grade aluminium making our Traditional range more corrosion resistant than other grade aluminium systems and cast iron products

Fade resistant architectural grade polyester powder coat paint finish

19 standard colours

65% lighter than equivalent cast iron systems, making it easier and safer to handle and install



Luxury Housing Development, Muswell Hill, North London

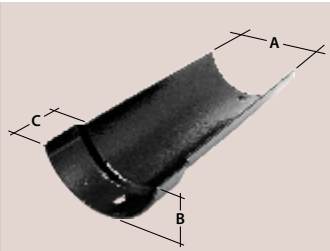


Shepherd Neame, The Faversham Brewery, Kent



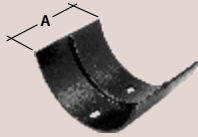
Private House, East Sussex

These products are compatible with 63mmØ, 76mmØ, 102mmØ, 72x72mm and 102x76mm downpipes



Gutter

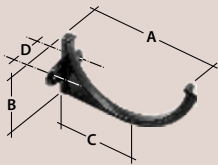
Code	Size	Nominal Length(m)	A	B	C
GC 406	100	1.83	105	46	45
GC 106	113	1.83	119	51	45
GC 506	125	1.83	131	56	45



Union

Code	Size	A
GC 420	100	95
GC 120	113	95
GC 520	125	95

External



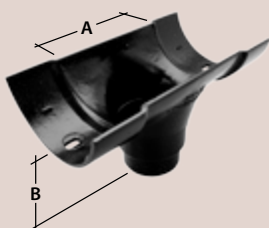
Fascia bracket

Code	Size	A	B	C	D
GC 480	100	112	62	59	38
GC 180	113	126	68	66	38
GC 580	125	139	74	72	38



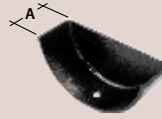
Angle

Code	Size	Angle	A
GC 422	100	90°	124
GC 437	100	135°	59
GC 439	100	Non standard	
GC 132	113	90°	137
GC 137	113	135°	63
GC 139	113	Non standard	
GC 532	125	90°	139
GC 537	125	135°	55
GC 539	125	Non standard	



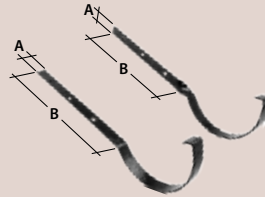
Outlet

Code	Size	Outlet Size	A	B	Fascia to Outlet Centre
GC 422	100	63Ø	134	80	61
GC 423	100	76Ø	134	42	61
GC 425	100	72x72	134	88	61
GC 122	113	63Ø	132	83	67
GC 123	113	76Ø	132	47	67
GC 125	113	72x72	132	91	67
GC 522	125	63Ø	133	98	73
GC 523	125	76Ø	133	68	73
GC 524	125	102Ø	133	36	73
GC 525	125	72x72	133	103	73
GC 526	125	102x76	133	103	73



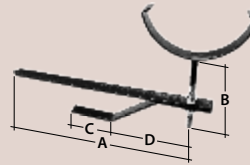
Stop end

Code	Size		A
GC 450	100	Internal	45
GC 455	100	External	45
GC 150	113	Internal	45
GC 155	113	External	52
GC 550	125	Internal	52
GC 555	125	External	50



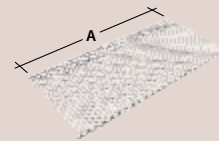
Fixed rafter arm

Code	Size		A	B
AC 71	100	Side	20	240
AC 72	113	Side	20	240
AC 73	125	Side	20	240
AC 74	100	Top	20	240
AC 75	113	Top	20	240
AC 76	125	Top	20	240



Rise & fall bracket

Code	Size	A	B	C	D
AC 91	100	360	125	80	168
AC 92	113	360	125	80	168
AC 93	125	360	125	80	168



Leafguard

Code	Size	A
SL 71	100	1220
SL 72	113	1220
SL 73	125	1220

Mill Finish



Installation sundries

Roundhead fascia bracket screw

Code	Description
SC201	No. 10 x 30mm – Mill Finish

Aluminium nuts, bolts and washers
For jointing gutters & fittings

Code	Description
SC501	M6 x 20mm aluminium bolt PPC - Pack 25
SC531	M6 Aluminium nut & washer set - pack 100



Sealant

Code	Description
SC101	310ml clear

Refer to sealant usage table, page 57.
Please note sealant shelf life is 12 months.



Prince's Foundation for Building Community Dumfries House Estate, Scotland

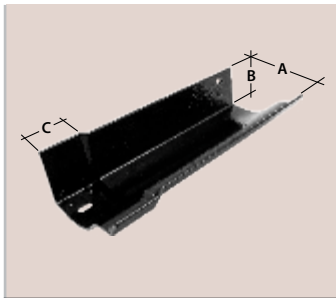


Moreteyne Manor, Bedfordshire



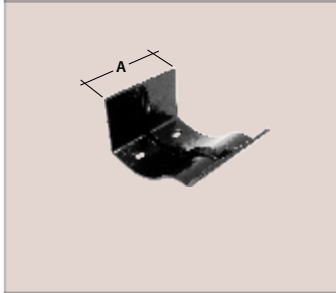
Menagerie, Coombe Deer Park, Warwickshire

These products are compatible with 63mmØ, 76mmØ, 72x72mm and 102x76mm downpipes



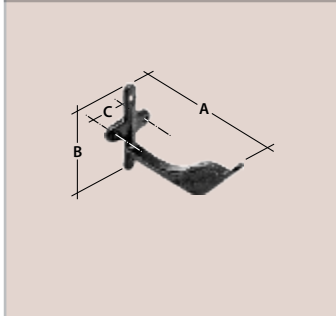
Gutter

Code	Size	Nominal Length(m)	A	B	C
GV406	100	1.83	109	54	45
GV106	113	1.83	121	61	45
GV506	125	1.83	134	68	45



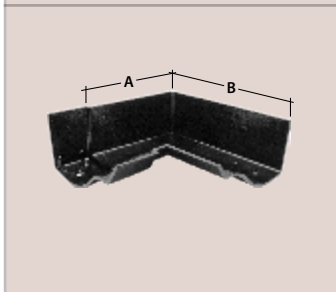
Union

Code	Size	A
GV420	100	96
GV120	113	96
GV520	125	96
External		



Fascia bracket

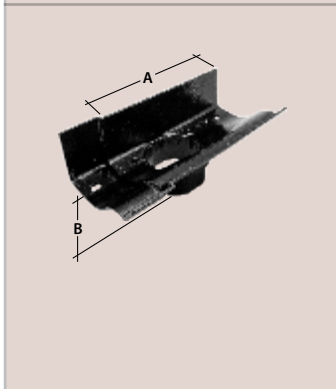
Code	Size	A	B	C
GV480	100	115	97	38
GV180	113	130	97	38
GV580	125	150	105	45



Angle

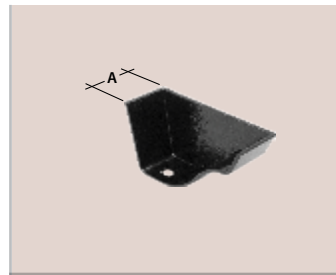
Code	Size	Angle	A	B
GV430	100	90° in.	125	176
GV431	100	90° ex.	68	16
GV435	100	135° in.	75	16
GV436	100	135° ex.	60	114
GV439	100	Non standard	-	-
GV130	113	90° in.	134	186
GV131	113	90° ex.	63	14
GV135	113	135° in.	124	67
GV136	113	135° ex.	70	23
GV139	113	Non standard	-	-
GV530	125	90° in.	152	212
GV531	125	90° ex.	77	18
GV535	125	135° in.	69	125
GV536	125	135° ex.	64	22
GV539	125	Non standard	-	-

Internal angle illustrated



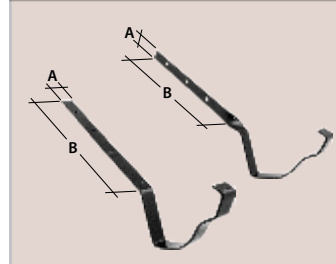
Outlet

Code	Size	Outlet	outlet centre	
			A	B
GV422	100	63Ø	195	54
GV423	100	76Ø	195	54
GV425	100	72x72	195	54
GV122	113	63Ø	187	54
GV123	113	76Ø	187	54
GV125	113	72x72	187	54
GV522	125	63Ø	190	54
GV523	125	76Ø	190	54
GV525	125	72x72	190	54
GV526	125	102x76	190	54



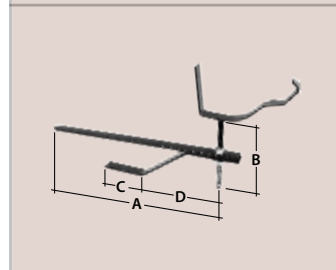
Stop end

Code	Size	A
GV450	100	In. left hand
GV455	100	Ex. right hand
GV150	113	In. left hand
GV155	113	Ex. right hand
GV550	125	In. left hand
GV555	125	Ex. right hand



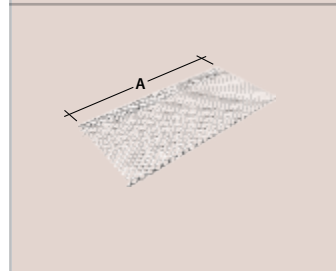
Fixed rafter arm

Code	Size	A	B
AV71	100	Side	20 240
AV72	113	Side	20 240
AV73	125	Side	20 240
AV74	100	Top	20 240
AV75	113	Top	20 240
AV76	125	Top	20 240



Rise & fall bracket

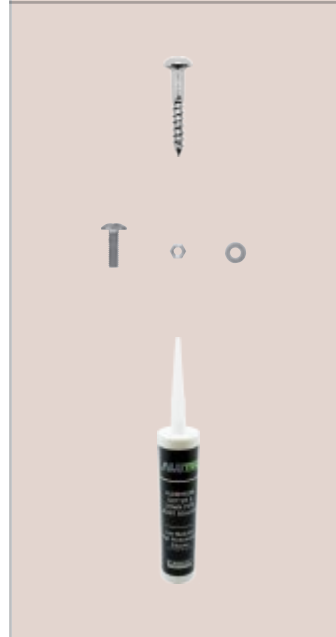
Code	Size	A	B	C	D
AV91	100	360	125	80	168
AV92	113	360	125	80	168
AV93	125	360	125	80	168



Leafguard

Code	Size	A
SL111	100	1220
SL113	113	1220
SL125	125	1220

Mill Finish



Installation sundries

Compatible fixing screws

Code	Description
SC201	No. 10 x 30mm - for fascia bracket
SC231	No. 12 x 50mm - for gutter direct fixing

Aluminium nuts, bolts and washers
For jointing gutters & fittings

Code	Description
SC501	M6 x 20mm aluminium bolt PPC - Pack 25
SC531	M6 Aluminium nut & washer set - pack 100

Sealant

Code	Description
SC101	310ml clear

Refer to sealant usage table, page 57.
Please note sealant shelf life is 12 months.

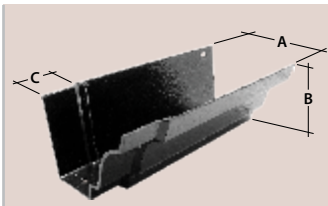
Moreteyne Manor, Bedfordshire



Prince's Foundation for Building Community, Dumfries House Estate, Scotland

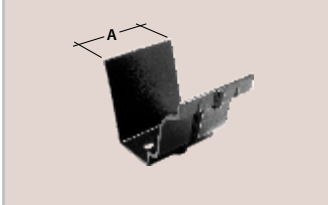


These products are compatible with 63mmØ, 76mmØ, 102mmØ, 72x72mm, 102x76mm and 102x102mm downpipes



Gutter

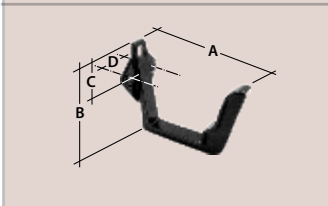
Code	Size	Nominal Length(m)	A	B	C
GM406	100	1.83	107	76	60
GM506	125	1.83	139	102	40
GM606	150	1.83	161	102	51



Union

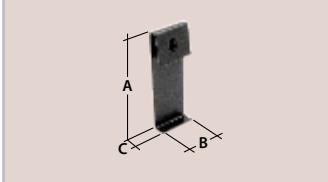
Code	Size	A
GM420	100	92
GM520	125	85
GM620	150	90

Internal



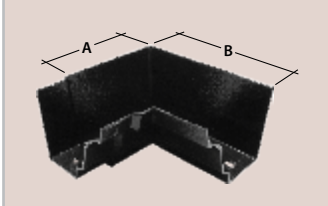
Fascia bracket

Code	Size	A	B	C	D
GM480	100	117	99	30	38
GM580	125	137	115	38	36
GM680	150	155	121	38	38



Direct fix bracket

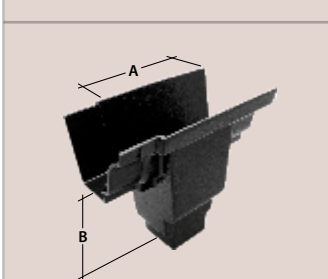
Code	Size	A	B	C
GM481	100	69	24	9
GM581	125	70	35	11
GM681	150	92	35	12



Angle

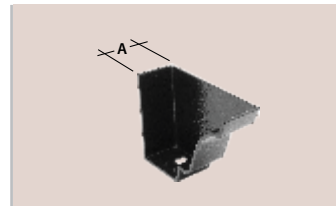
Code	Size	Angle	A	B
GM430	100	90° in.	127	183
GM431	100	90° ex.	75	19
GM435	100	135° in.	60	119
GM436	100	135° ex.	75	18
GM439	100	Non standard	-	-
GM530	125	90° in.	160	205
GM531	125	90° ex.	68	23
GM535	125	135° in.	80	135
GM536	125	135° ex.	85	27
GM539	125	Non standard	-	-
GM630	150	90° in.	183	235
GM631	150	90° ex.	77	24
GM635	150	135° in.	88	140
GM636	150	135° ex.	75	24
GM639	150	Non standard	-	-

Internal angle illustrated in. internal ex. external



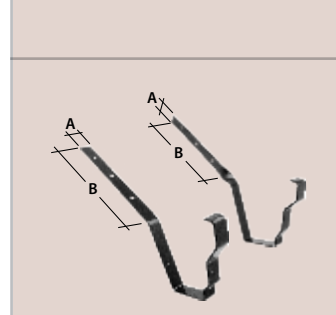
Outlet

Code	Size	Outlet	A	B	Fascia to Outlet Centre
GM422	100	63Ø	192	50	50
GM423	100	76Ø	192	50	64
GM425	100	72x72	192	58	41
GM426	100	102x76	192	58	41
GM522	125	63Ø	190	57	55
GM523	125	76Ø	190	57	55
GM524	125	102Ø	190	57	72
GM525	125	72x72	190	125	65
GM526	125	102x76	190	125	65
GM527	125	102x102	190	56	72
GM622	150	63Ø	190	58	52
GM623	150	76Ø	190	58	67
GM624	150	102Ø	190	58	87
GM625	150	72x72	190	58	42
GM626	150	102x76	190	58	46
GM627	150	102x102	190	58	46



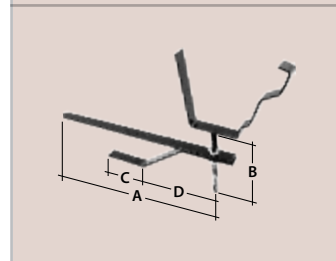
Stop end

Code	Size	A
GM450	100	Ex. left handed 47
GM455	100	In. right handed 47
GM550	125	Ex. left handed 46
GM555	125	In. right handed 46
GM650	150	In. left handed 47
GM655	150	Ex. right handed 47



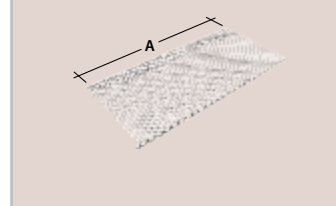
Fixed rafter arm

Code	Size		A	B
AM71	100x75	Side	20	240
AM73	125x100	Side	20	240
AM75	150x100	Side	20	240
AM74	100x75	Top	20	240
AM76	125x100	Top	20	240
AM77	150x100	Top	20	240



Rise & fall bracket

Code	Size	A	B	C	D
AM91	100	360	125	80	168
AM93	125	360	125	80	168
AM94	150	360	125	80	168



Leafguard

Code	Size	A
SL114	100x75	1220
SL115	125x100	1220
SL116	150x100	1220

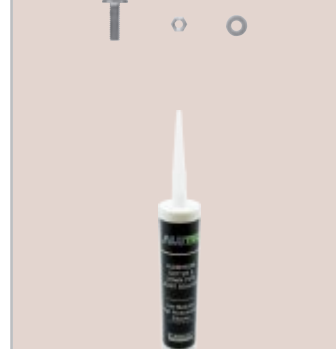
Mill Finish



Installation sundries

Compatible fixing screws

Code	Description
SC201	No. 10 x 30mm - for fascia bracket
SC231	No. 12 x 50mm - for gutter direct fixing



Aluminium nuts, bolts and washers

For jointing gutters & fittings

Code	Description
SC501	M6 x 20mm aluminium bolt PPC - Pack 25
SC531	M6 Aluminium nut & washer set - pack 100

Sealant

Code	Description
SC101	310ml clear

Refer to sealant usage table, page 57. Please note sealant shelf life is 12 months.



Private House



Broughton, Milton Keynes



Aligator® Gutter Systems



Aligator Classic



Aligator Deepflow



Aligator Ogee No 46



Aligator Giant



Aligator Boxer

Two distinctive design solutions:

Aligator Classic, a domestic size ogee style gutter system with external unions and brackets.

Deepflow, Ogee and Boxer profiles with internal joints and concealed brackets, offering a sleek and unobtrusive solution for modern building design.

Features of the Aligator range

Functional life expectancy of 50 years or more with minimal maintenance, only periodic aesthetic cleaning required

Durable and strong - Manufactured from marine grade aluminium making the Aligator range more corrosion resistant than other grade aluminium systems, steel or cast iron products

Patented Aligator Snap-fit joint system, proven to reduce installation times by up to 40% compared to traditional bolted systems



Fade resistant architectural grade polyester powder coat paint finish

Aligator Classic available at a lower price in the popular Heritage Black finish

19 standard colours

65% lighter than cast iron, making Aligator easier and safer to handle and install

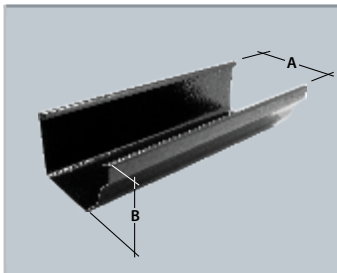
Sanctuary Housing project,
Arbourthorne, Sheffield



Renovation and
self-build project,
Goudhurst, Kent

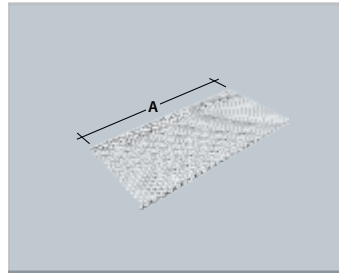


These products are compatible with 63mmØ downpipes'



Gutter

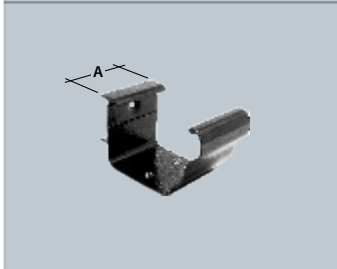
Code	Nominal Length(m)	A	B
GK 413	3	120	75



Leafguard

Code	A
SL 101	1220

Mill finish



Union

Code	A
GK 420	75

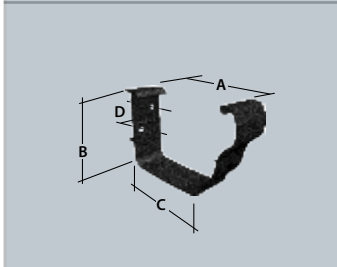
External



Joint Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



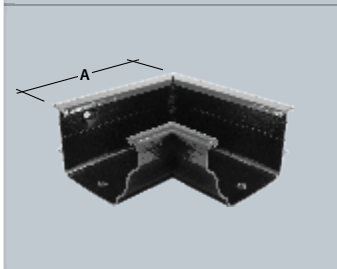
Fascia bracket

Code	A	B	C	D
GK 480	147	98	40	40



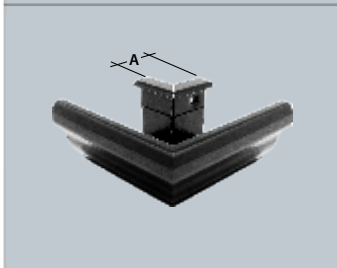
Compatible fixing screws

Code	Description
SC201	30mm x No.10 For use with gutter
SC202	32mm x No.10 For use with union, angle and outlet



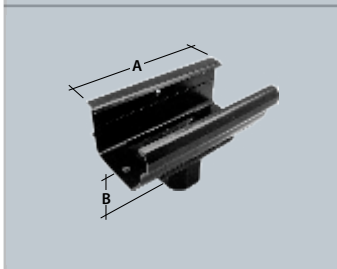
Angle (internal)

Code	Angle	A
GK 430	90°	183
GK 435	135°	100
GK 439	Non standard	



Angle (external)

Code	Angle	A
GK 431	90°	63
GK 436	135°	63
GK 439	Non standard	



Outlet

Code	Fascia to Outlet Centre	A	B
GK 421	58	220	70

Suitable for 63mm Ø downpipe

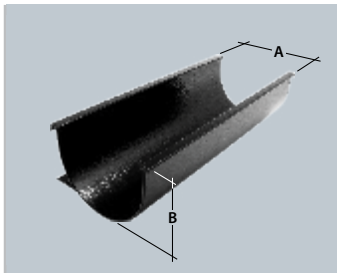


Stop end

Code	A
GK 450	35
GK 455	35

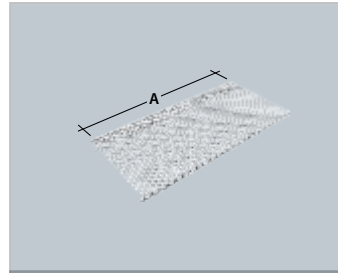


These products are compatible with 63mmØ, 76mmØ, 102mmØ, 72x72mm, 102x76mm and 102x102mm downpipes



Gutter

Code	Nominal Length(m)	A	B
GD 513	3	130	80



Leafguard

Code	A
SL 102	1220

Mill finish



Union

Code	A
GD 520	70

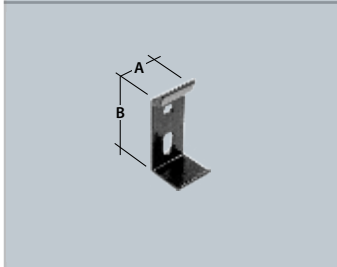
Internal



Joint Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



Fascia bracket

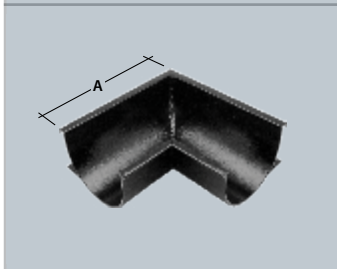
Code	A	B
GD 580	25	52

For linear alignment of brackets use packing shim, SC380



Compatible fixing screws

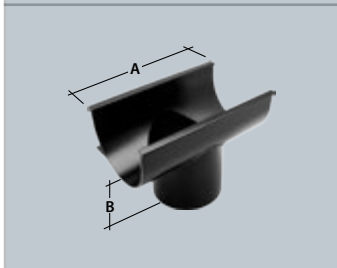
Code	Description
SC201	30mm x No.10 Mill Finish For use with gutter



Angle

Code	Angle	A
GD 530	90° internal	200
GD 531	90° external	70
GD 535	135° internal	120
GD 536	135° external	66
GD 539	Non standard	-

Internal angle illustrated



Outlet

Code	Outlet Size	A	B	Fascia to Outlet Centre
GD 522	63 Ø	200	70	70
GD 523	76 Ø	200	70	70
GD 524	102 Ø	200	70	70
GD 525	72x72	200	70	70
GD 526	102x76	200	70	70
GD 527	102x102	200	70	70



Stop end

Code	A
GD 550	33

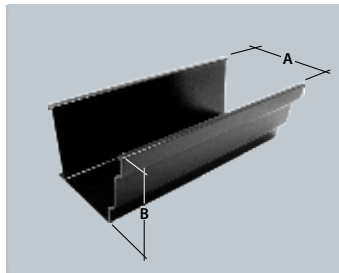


Packing shim

Code
SC380

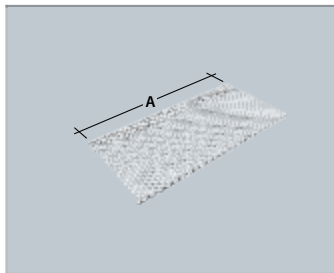
For use with GD580 fascia bracket

These products are compatible with 63mmØ, 76mmØ, 102mmØ, 72x72mm, 102x76mm and 102x102mm downpipes



Gutter

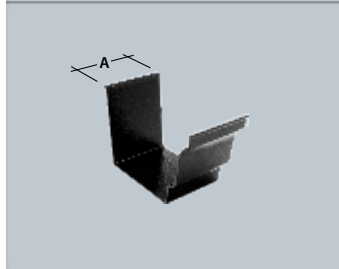
Code	Nominal Length(m)	A	B
GG 513	3	155	100



Leafguard

Code	A
SL 103	1220

Mill finish



Union

Code	A
GG 520	70

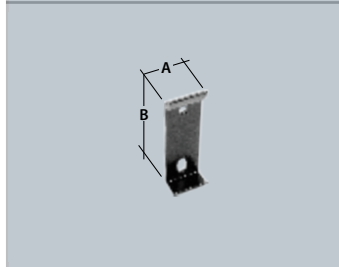
Internal



Joint Sealant

Code	Description
SC101	310ml clear

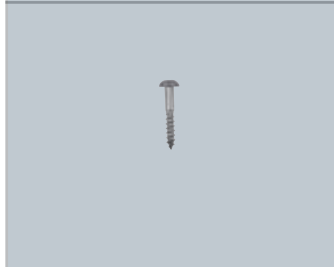
Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



Fascia bracket

Code	A	B
GG 580	30	85

For linear alignment of brackets use packing shim, SC381



Compatible fixing screws

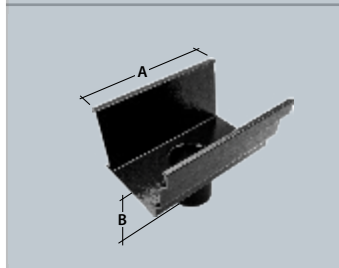
Code	Description
SC201	30mm x No.10 Mill Finish For use with gutter



Angle

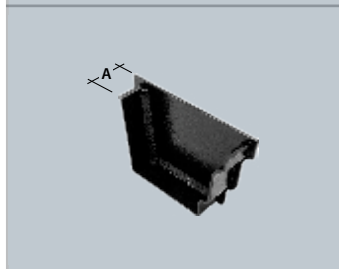
Code	Angle	A	B
GG 530	90° internal	200	45
GG 531	90° external	45	200
GG 535	135° internal	135	71
GG 536	135° external	71	135
GG 539	Non standard	-	-

Internal angle illustrated



Outlet

Code	Outlet Size	A	B	Fascia to Outlet Centre
GG 522	63 Ø	200	70	73
GG 523	76 Ø	200	70	73
GG 524	102 Ø	200	70	73
GG 525	72x72	200	70	73
GG 526	102x76	200	70	73
GG 527	102x102	200	70	73



Stop end

Code	A	
GG 550	Left hand	33
GG 555	Right hand	33

Right hand illustrated

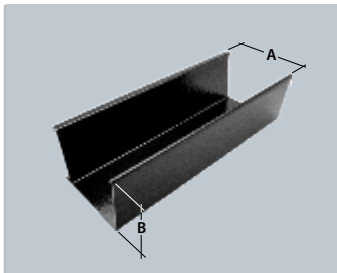


Packing shim

Code
SC381

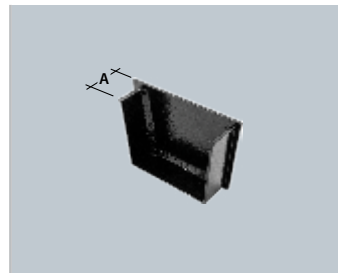
For use with GG580 fascia bracket

These products are compatible with 63mmØ, 76mmØ, 102mmØ, 72x72mm, 102x76mm and 102x102mm downpipes



Gutter

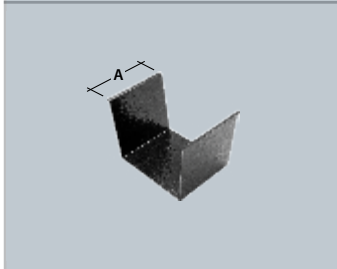
Code	Nominal Length(m)	A	B
GF 413	3	120	80
GF 513	3	135	100
GF 613	3	160	100



Stop end

Code	Size		A
GF 450	120	Left Hand	33
GF 455	120	Right Hand	33
GF 550	135	Left Hand	33
GF 555	135	Right Hand	33
GF 650	160	Left Hand	33
GF 655	160	Right Hand	33

Right hand illustrated



Union

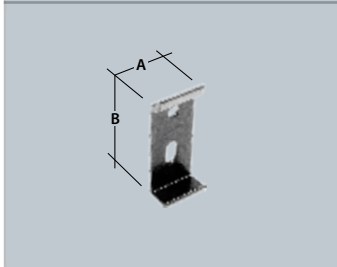
Code	Size	A
GF 420	120	70
GF 520	135	70
GF 620	160	70

Internal



Packing shim

Code	Size
SC382	120
SC381	135, 160



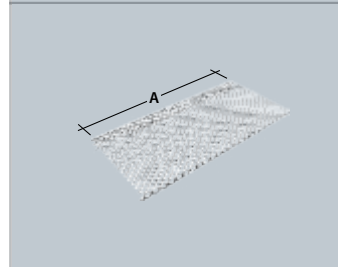
Fascia bracket

Code	A	B
GF 480 ¹	30	65
GF 080 ²	30	85

¹Use with 120x80 Gutter

For linear alignment use shim plate SC382

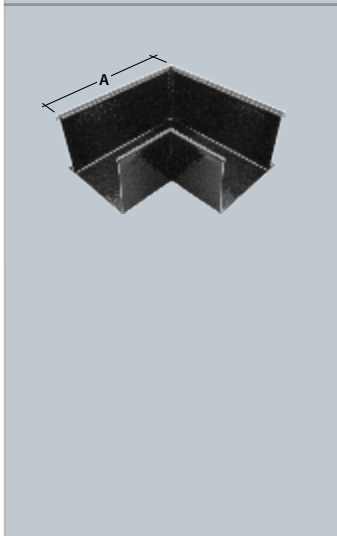
²Use with 135x100 and 160x100 Gutters
For linear alignment use shim plate SC381



Leafguard

Code	Gutter Size	A
SL 105	120x80	1220
SL 106	135x100	1220
SL 107	160x100	1220

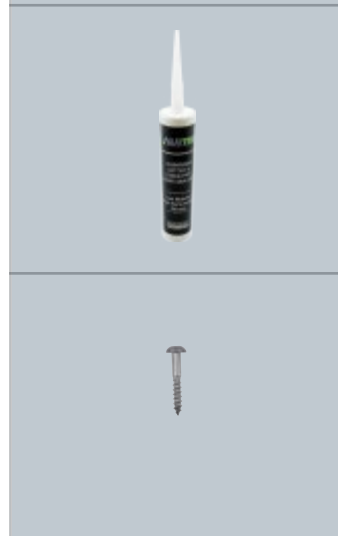
Mill finish



Angle

Code	Size	Angle	A
GF 430	120	90° internal	185
GF 431	120	90° external	65
GF 435	120	135° internal	115
GF 436	120	135° external	65
GF 439	120	Non standard	-
GF 530	135	90° internal	200
GF 531	135	90° external	65
GF 535	135	135° internal	120
GF 536	135	135° external	64
GF 539	135	Non standard	-
GF 630	160	90° internal	225
GF 631	160	90° external	65
GF 635	160	135° internal	135
GF 636	160	135° external	69
GF 639	160	Non standard	-

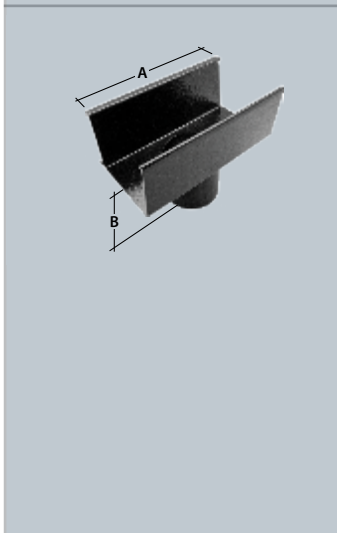
Internal angle illustrated



Joint Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months.
Refer to sealant usage table, page 57.



Outlet

Code	Size	Outlet Size	A	B	Fascia to Outlet Centre
GF 422	120	63 Ø	200	70	66
GF 423	120	76 Ø	200	70	66
GF 425	120	72x72	200	70	66
GF 426	120	102x76	200	70	66
GF 522	135	63 Ø	200	70	75
GF 523	135	76 Ø	200	70	75
GF 524	135	102 Ø	200	70	75
GF 525	135	72x72	200	70	75
GF 526	135	102x76	200	70	75
GF 527	135	102x102	200	70	75
GF 622	160	63 Ø	200	70	88
GF 623	160	76 Ø	200	70	88
GF 624	160	102 Ø	200	70	88
GF 625	160	72x72	200	70	88
GF 626	160	102x76	200	70	88
GF 627	160	102x102	200	70	88



Compatible fixing screws

Code	Description
SC201	30mm x No.10 Mill Finish For use with gutter

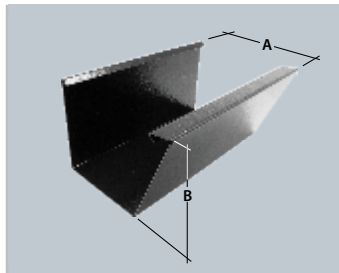


Residential development,
Leighton Buzzard, Bedfordshire



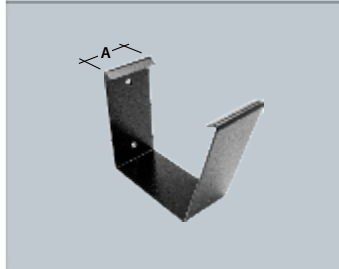
Warren Wood Manor,
Hertfordshire

These are compatible with 76mmØ, 102mmØ, 72x72mm, 102x76mm and 102x102mm downpipes



Gutter

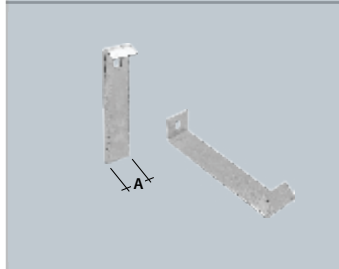
Code	Nominal Length(m)	A	B
GH 813	3	200	150



Union

Code	A
GH 820	70

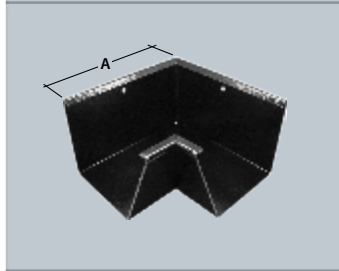
External



Stiffener bracket & spacer assembly

Code	A
GH 885	25

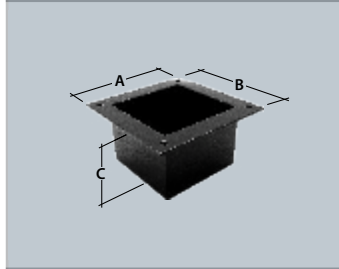
4 stiffener brackets and spacers required to each 3m gutter length
Mill finish



Angle

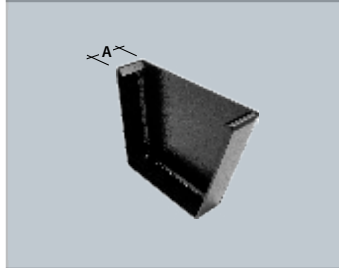
Code	Angle	A
GH 830	90° internal	250
GH 831	90° external	50
GH 835	135° internal	150
GH 836	135° external	67
GH 839	Non standard	-

Internal angle illustrated



Patch outlet

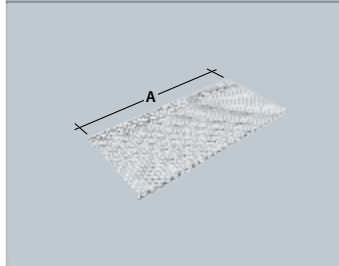
Code	Outlet Size	A	B	C
GH 823	76 Ø	100	100	70
GH 824	102 Ø	128	128	70
GH 825	72x72	120	120	70
GH 826	102x76	160	120	70
GH 827	102x102	140	140	70



Stop end

Code	A	
GH 850	Left hand	33
GH 855	Right hand	33

Right hand illustrated



Leafguard

Code	A
SL 225	1220

Mill finish



Joint Sealant

Code	Description
SC101	310ml clear

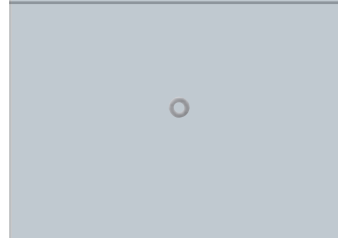
Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



Compatible fixing screws

Roundhead fascia bracket screw. Mill Finish.

Code	Description
SC202	32mm x No.10 countersunk For use with union, angle and outlet
SC231	50mm x No.12 domehead For use with stiffener bracket GH885



Aluminium washer

Code	Description
SC521	20mm x M6 Aluminium washer per 100










For use with stiffener bracket and spacer assembly



Gutter / Downpipe Selector Chart

Choose the right gutter and downpipe combination.

Use the table below to select the most suitable gutter and downpipe combination.

			DOWNPIPE SYSTEM						
			63mm Ø	76mm Ø	102mm Ø	72x72mm	102x76mm	102x102mm	
GUTTER SYSTEMS	evolve	Half Round		✓	✓				
		Deepflow			✓				
		Box			✓		✓		
		Ogee			✓		✓		
	traditional	Half Round*		✓	✓	✓	✓	✓	
		Victorian Ogee*		✓	✓		✓	✓	
		Moulded Ogee*		✓	✓	✓	✓	✓	✓
	aligator	Classic		✓					
		Deepflow		✓	✓	✓	✓	✓	
		Ogee No. 46		✓	✓	✓	✓	✓	✓
		Boxer*		✓	✓	✓	✓	✓	✓
		Giant			✓	✓	✓	✓	✓






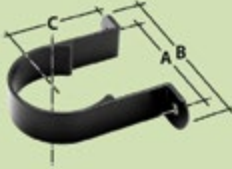



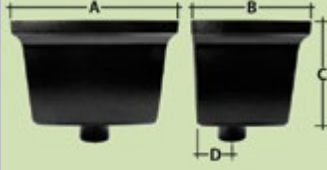



*Compatibility depends on gutter size chosen.

D O W N P I P E S





To view compatible gutter systems, see page 38

	<p>Downpipe 3m</p> <p>Code</p> <table border="1"> <tr> <td>RT213</td> </tr> </table>	RT213		<p>Shoe</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>RT250</td> <td>92</td> <td>104</td> </tr> </tbody> </table>		A	B	RT250	92	104													
RT213																							
	A	B																					
RT250	92	104																					
	<p>Pipe socket (eared)</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> </tr> </thead> <tbody> <tr> <td>RT220</td> <td>82</td> <td>52</td> <td>94</td> <td>116</td> <td>59</td> </tr> </tbody> </table>		A	B	C	D	E	RT220	82	52	94	116	59		<p>Access pipe</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>RT260</td> <td>300</td> <td>140</td> <td>105</td> </tr> </tbody> </table>		A	B	C	RT260	300	140	105
	A	B	C	D	E																		
RT220	82	52	94	116	59																		
	A	B	C																				
RT260	300	140	105																				
	<p>Pipe socket (uneared)</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>RT220NE</td> <td>82</td> <td>52</td> </tr> </tbody> </table>		A	B	RT220NE	82	52		<p>Pipe clip</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>RT280</td> <td>94</td> <td>118</td> <td>59</td> </tr> </tbody> </table>		A	B	C	RT280	94	118	59						
	A	B																					
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	<p>Top bend 112.5°</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>RT232</td> <td>50</td> <td>35</td> <td>46</td> </tr> </tbody> </table>		A	B	C	RT232	50	35	46		<p>Rainwater diverter</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>RTD25</td> <td>134</td> <td>500</td> <td>74</td> <td>30</td> </tr> </tbody> </table>		A	B	C	D	RTD25	134	500	74	30		
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RT232	50	35	46																				
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RTD25	134	500	74	30																			
	<p>Bottom bend 112.5°</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>RT292</td> <td>40</td> <td>64</td> <td>40</td> </tr> </tbody> </table>		A	B	C	RT292	40	64	40		<p>Hopper head (standard)</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>RH110</td> <td>250</td> <td>180</td> <td>180</td> <td>59</td> </tr> </tbody> </table>		A	B	C	D	RH110	250	180	180	59		
	A	B	C																				
RT292	40	64	40																				
	A	B	C	D																			
RH110	250	180	180	59																			
	<p>Bend 92.5°</p> <p>Code</p> <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>RT230</td> <td>37</td> <td>27</td> <td>46</td> </tr> </tbody> </table>		A	B	C	RT230	37	27	46		<p>Compatible fixing screws</p> <p>Roundhead fascia bracket screw</p> <p>Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>SC205</td> <td>No. 12 x 50 domehead - for downpipe</td> </tr> <tr> <td>SC208</td> <td>M6 x 70mm hexagonal coach screw - for hopper</td> </tr> </tbody> </table>	Code	Description	SC205	No. 12 x 50 domehead - for downpipe	SC208	M6 x 70mm hexagonal coach screw - for hopper						
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SC208	M6 x 70mm hexagonal coach screw - for hopper																						
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	A	B	C																				
RT242	95	26	115																				

Tudor Circular Downpipes

To view compatible gutter systems, see page 38



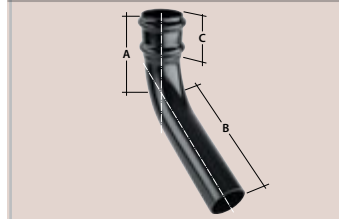
Downpipe

Code	Size	Nominal Length(m)	A	B	C
TR212	63	2	110	145	45
TR213	63	3	110	145	45
TR312	76	2	115	160	52
TR313	76	3	115	160	52
TR412	102	2	141	186	65
TR413	102	3	141	186	65



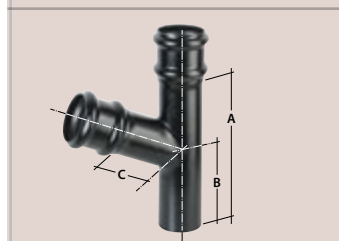
Pipe socket

Code	Size	A	B
TR220	63	75	30 eared
TR220NE	63	75	30 non eared
TR320	76	81	30 eared
TR320NE	76	81	30 non eared
TR420	102	94	50 eared
TR420NE	102	94	50 non eared



Bend

Code	Size	Angle	A	B	C
TR230	63	92.5°	150	240	70
TR232	63	112.5°	190	230	70
TR330	76	92.5°	180	250	70
TR332	76	112.5°	220	250	70
TR430	102	92.5°	290	325	94
TR432	102	112.5°	230	270	94



Branch

Code	Size	Angle	A	B	C
TR240	63	92.5°	215	138	75
TR242	63	112.5°	215	138	75
TR340	76	92.5°	250	138	70
TR342	76	112.5°	250	119	90
TR440	102	92.5°	260	150	110
TR442	102	112.5°	260	130	130



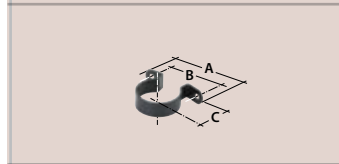
Shoe

Code	Size	Angle	A	B
TR250	63	112.5°	85	90
TR350	76	112.5°	103	106
TR450	102	112.5°	125	131



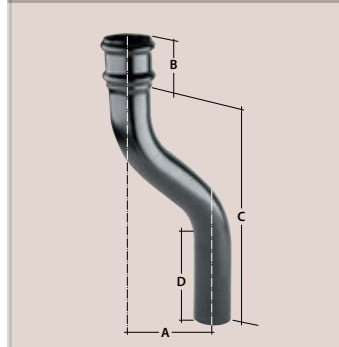
Access pipe

Code	Size	A	B	C
TR260	63	300	140	105
TR360	76	300	140	105
TR460	102	300	140	105



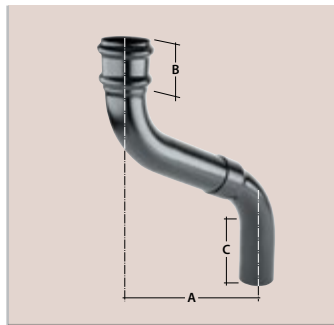
Pipe clip

Code	Size	A	B	C
TR280	63	105	80	45
TR380	76	118	93	52
TR480	102	138	113	65



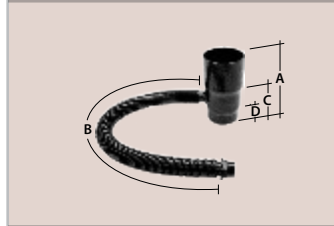
Fixed offset

Code	Size	A	B	C	D
TR2903	63	75	70	370	100
TR2904	63	100	70	355	100
TR2906	63	150	70	400	100
TR3903	76	75	70	380	130
TR3904	76	100	70	380	130
TR3906	76	150	70	400	130
TR4903	102	75	94	512	150
TR4904	102	100	94	516	150
TR4906	102	150	94	566	150



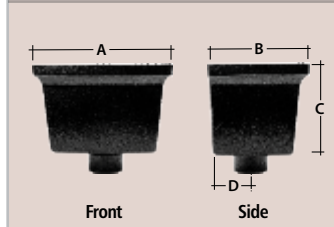
Adjustable offset

Code	Size	Angle	A min	A max	B	C
TR2945	63	112.5°	150	450	70	100
TR2990	63	112.5°	150	900	70	100
TR3945	76	112.5°	200	450	70	163
TR3990	76	112.5°	200	900	70	163
TR4945	102	112.5°	280	450	94	150
TR4990	102	112.5°	280	900	94	150



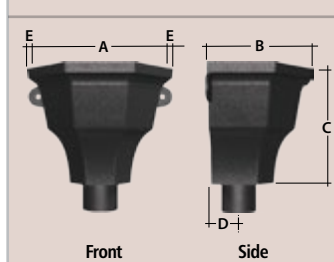
Rainwater diverter

Code	Size	A	B	C	D
TRD25	63	134	500	74	30
TRD35	76	134	500	74	30



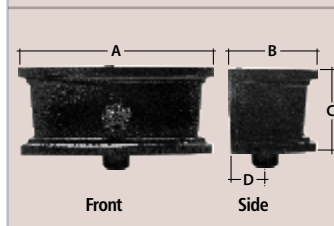
Hopper head (Standard)

Code	Size	A	B	C	D
TH101	63	250	180	180	45
TH102	76	250	180	180	52
TH103	102	250	180	180	65



Hopper head (Fluted)

Code	Size	A	B	C	D	E
TH401	63	285	210	225	45	18
TH402	76	285	210	225	52	18



Hopper head

Code	Size	A	B	C	D
TH301	63	410	190	185	45
TH302	76	410	190	185	52
TH303	102	410	190	185	65



Compatible fixings

Code	Description
SC208	M6 x 70mm hexagonal coach screw - for downpipe and hopper
SC209	M6 x 100mm hexagonal coach screw - for wall spacer



Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months.



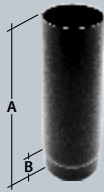
Wall spacer

Code	Description
SC712	30mm Per 2

All dimensions are in mm. For colour range and finishes, see page 7 .


Flushfit Circular Downpipes

To view compatible gutter systems, see page 38




Downpipe 3m

Code	Size	A	B
RE213	63	3000	50
RE313	76	3000	50
RE413	102	3000	50



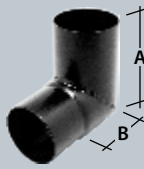
Internal joint spigot

Code	Size	A
RE220	63	64
RE320	76	69
RE420	102	104



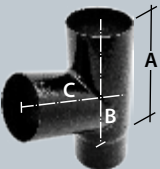
Socket to Spigot Connector

Code	Size
RE224	63
RE324	76
RE242	102



Bend

Code	Size	Angle	A	B
RE230	63	92.5°	115	51
RE232	63	112.5°	90	56
RE330	76	92.5°	115	51
RE332	76	112.5°	90	56
RE430	102	92.5°	160	106
RE432	102	112.5°	130	76



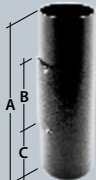
Branch 112.5°

Code	Size	A	B	C
RE242	63	176	65	107
RE342	76	180	180	120
RE442	102	310	150	196



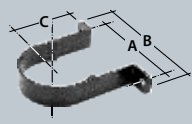
Shoe

Code	Size	A	B
RE250	63	167	58
RE350	76	173	62
RE450	102	203	75



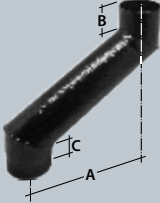
Access pipe

Code	Size	A	B	C
RE260	63	345	140	105
RE360	76	345	138	104
RE460	102	345	140	105




Pipe clip

Code	Size	A	B	C
RE280	63	94	118	59
RE380	76	112	137	69
RE480	102	140	110	91




Adjustable eaves offset

Code	Size	A _{min}	A _{max}	B	C
RE2925	63	90	250	50	14
RE2950	63	90	500	50	14
RE29100	63	90	1000	50	14
RE3925	76	90	250	100	14
RE3950	76	90	500	100	14
RE39100	76	90	1000	100	14
RE4925	102	120	250	63	14
RE4950	102	120	500	63	14
RE49100	102	120	1000	63	14



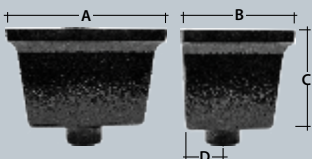
Fixed wall offset

Fixed offsets are available to order



Rainwater diverter

Code	Size	A	B	C	D
TR25	63	125	500	45	25
TRD35	76	125	500	45	25



Hopper head (standard)


Code	Size	A	B	C	D
RH113	63	250	180	180	59
RH111	76	250	180	180	70
RH114	102	250	180	180	91



Joint Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



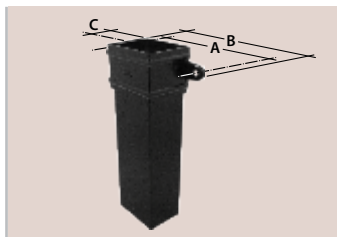
Compatible fixing screws

Code	Description
SC208	M6 x 70mm hexagonal coach screws - for downpipe and hopper



Traditional Square and Rectangular Downpipes

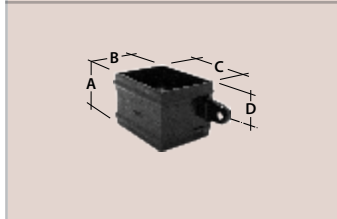
To view compatible gutter systems, see page 38



Downpipe

Code	Size	Nominal Length(m)	A	B	C
RSR313	72x72	3	125	151	42
RSR113	102x76	3	154	182	44
RSR412	102x102	2	154	182	56

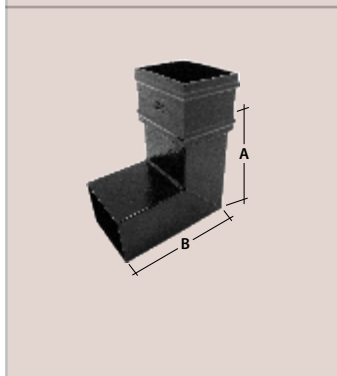
Add suffix 'N.E.' for non-eared pipes



Pipe socket

Code	Size	A	B	C	D
RSR320	72x72	80	83	83	40
RSR120	102x76	80	87	112	40
RSR420	102x102	80	112	112	40

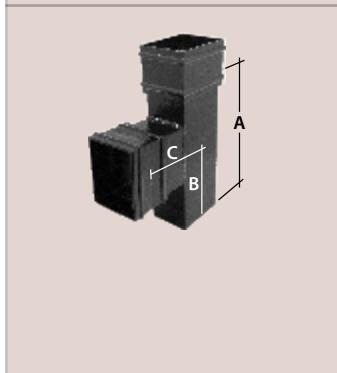
Add suffix 'N.E.' for non-eared socket



Bend

Code	Size	Angle	A	B
RSR330	72x72	92.5°	150	150
RSR332	72x72	112.5°	60	135
RSR335	72x72	135°	43	110
RSR130	102x76	92.5°	175	175
RSR132	102x76	112.5°	63	140
RSR135	102x76	135°	55	132
RSR430	102x102	92.5°	198	198
RSR432	102x102	112.5°	75	155
RSR435	102x102	135°	55	140

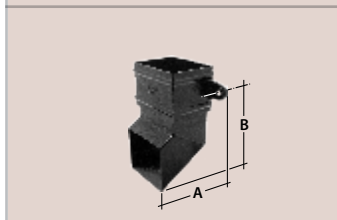
For 102x76mm state if left/right handed or front/rear projection is required



Branch

Code	Size	Angle	A	B	C
RSR340	72x72	92.5°	260	140	114
RSR342	72x72	112.5°	260	127	130
RSR345	72x72	135°	260	95	160
RSR140	102x76	92.5°	280	130	140
RSR142	102x76	112.5°	280	112	156
RSR145	102x76	135°	280	72	164
RSR440	102x102	92.5°	280	130	140
RSR442	102x102	112.5°	280	112	156
RSR445	102x102	135°	280	72	164

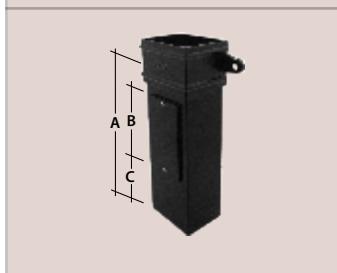
For 102x76mm state if left/right handed or front/rear projection is required



Shoe

Code	Size	Angle	A	B
RSR350	72x72	120°	96	100
RSR150	102x76	120°	108	170
RSR450	102x102	120°	132	198

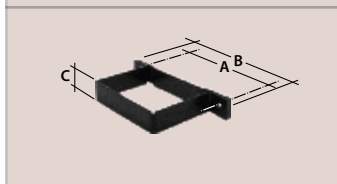
Add suffix 'N.E.' for non-eared shoe



Access pipe

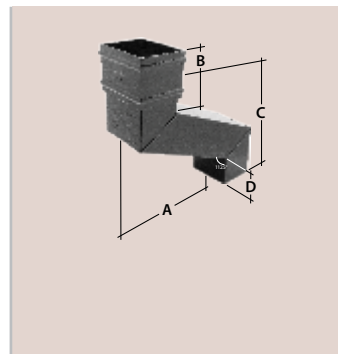
Code	Size	A	B	C
RSR360	72x72	300	140	105
RSR160	102x76	300	140	105
RSR 460	102x102	300	140	105

Add suffix 'N.E.' for non-eared access pipe



Pipe clip

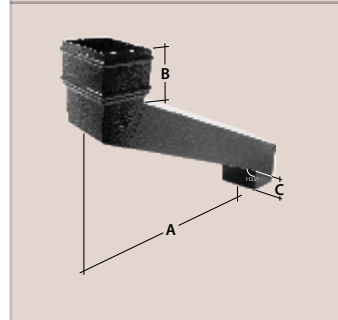
Code	Size	A	B	C
RSR380	72x72	103	128	25
RSR180	102x76	134	159	25
RSR480	102x102	134	159	25



Fixed offset

Code	Size	A	B	C	D
RSR3903	72x72	75	80	160	60
RSR3904	72x72	100	80	173	60
RSR3906	72x72	150	80	193	60
RSR1903	102x76	75	82	160	60
RSR1904	102x76	100	82	175	60
RSR1906	102x76	150	82	185	60
RSR4903	102x102	75	82	180	60
RSR4904	102x102	100	82	188	60
RSR4906	102x102	150	82	220	60

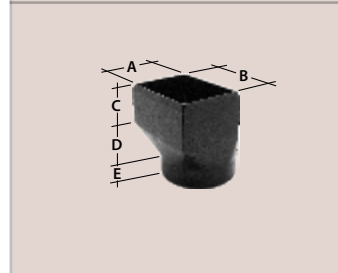
For 102x76mm state if left/right handed or front/rear projection is required



Adjustable offset

Code	Size	A min	A max	B	C
RSR3945	72x72	75	450	82	60
RSR3990	72x72	75	900	82	60
RSR1945	102x76	75	450	82	60
RSR1990	102x76	75	900	82	60
RSR4945	102x102	100	450	82	60
RSR4990	102x102	100	900	82	60

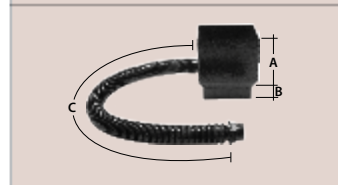
For 102x76mm state if left/right handed or front/rear projection is required



Drain connector (slip socket)

Code	Size	A	B	C	D	E
RSR370	72x72	85	85	65	41	30
RSR170	102x76	90	116	65	41	30
RSR470	102x102	115	115	65	41	30

70mm from wall to centre of 110mm drain connection. Adapts to 110mm Ø drain.



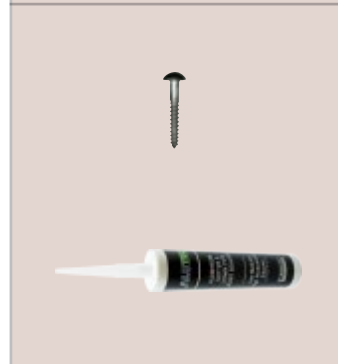
Rainwater diverter

Code	Size	A	B	C
RSRD35	72x72	98	30	500
RSRD15	102x76	98	30	500



Hopper head

Code	Size
RH104	Standard 72x72mm
RH105	Standard 102x76mm
RH106	Standard 102x102mm
RH404	Fluted 72x72mm
RH304	Ornamental 72x72mm
RH305	Ornamental 102x76mm
RH306	Ornamental 102x102mm



Installation sundries

Compatible fixing screw

Code	Description
SC208	M6 x 70mm hexagonal coach screw - for downpipe and hopper
SC209	M6 x 100mm hexagonal coach screw - for cast spacer bobbin

Sealant

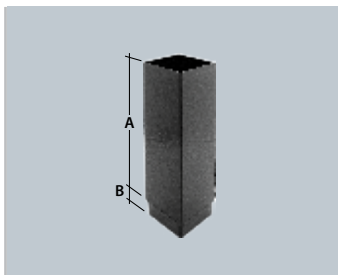
Code	Description
SC101	310ml clear

Refer to sealant usage table, page 57. Please note sealant shelf life is 12 months.

All dimensions are in mm. For colour range and finishes, see page 7.

Flushfit Square & Rectangular Downpipes

To view compatible gutter systems, see page 38



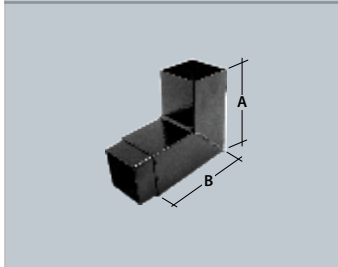
Downpipe 3m

Code	Size	A	B
RJ313	72x72	3000	30
RJ113	102x76	3000	34
RJ413	102x102	3000	34



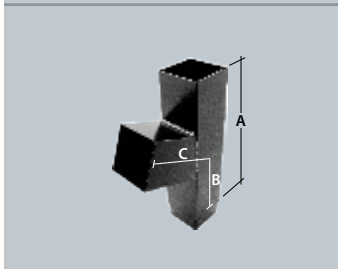
Internal joint spigot

Code	Size	A
RJ320	72x72	62
RJ120	102x76	70
RJ420	102x102	70



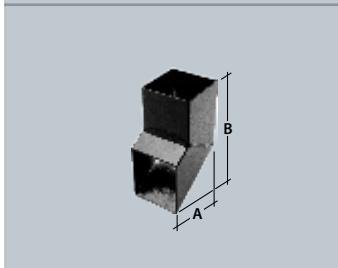
Bend

Code	Size	A	B
RJ330	72x72	150	150
RJ332	72x72	128	128
RJ130	102x76	175	175
RJ132	102x76	150	150
RJ430	102x102	198	198
RJ432	102x102	154	154



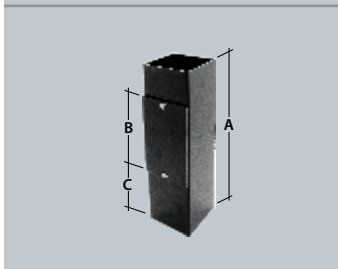
Branch 112.5°

Code	Size	A	B	C
RJ342	72x72	260	127	154
RJ142	102x76	280	112	190
RJ442	102x102	280	112	190



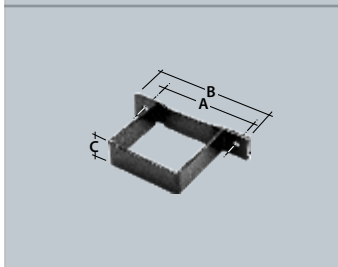
Shoe

Code	Size	A	B
RJ350	72x72	96	160
RJ150	102x76	104	187
RJ450	102x102	130	202



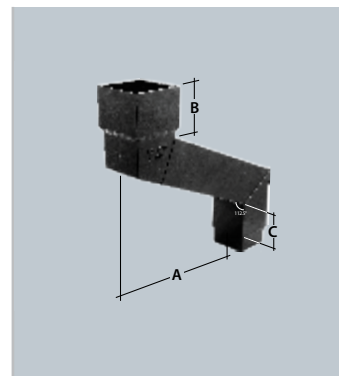
Access pipe

Code	Size	A	B	C
RJ360	72x72	300	140	105
RJ160	102x76	300	140	105
RJ460	102x102	300	140	105



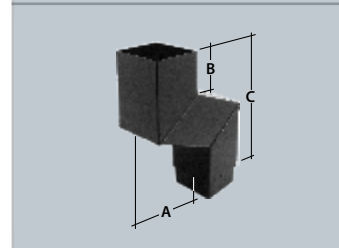
Pipe clip

Code	Size	A	B	C
RJ380	72x72	103	128	25
RJ180	102x76	134	159	25
RJ480	102x102	134	159	25



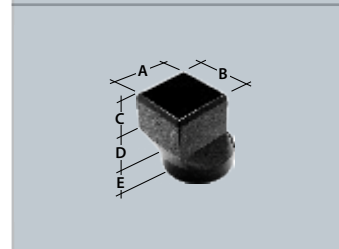
Adjustable eaves offset

Code	Size	A min	A max	B	C
RJ3925	72x72	75	250	75	60
RJ3950	72x72	75	500	75	60
RJ39100	72x72	75	1000	75	60
RJ1925	102x76	75	250	83	60
RJ1950	102x76	75	500	83	60
RJ19100	102x76	75	1000	83	60
RJ4925	102x102	109	250	83	60
RJ4950	102x102	109	500	83	60
RJ49100	102x102	109	1000	83	60



Fixed wall offset

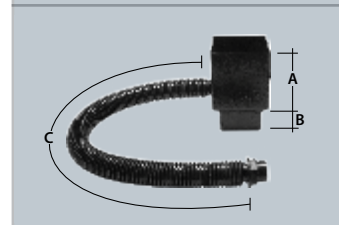
Fixed offsets are available to order*



Drain connector (slip socket)

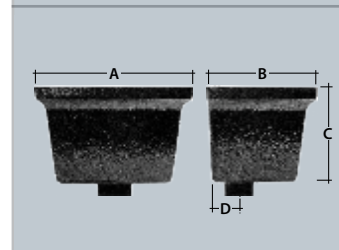
Code	Size	A	B	C	D	E
RSR370	72x72	85	85	65	41	30
RSR170	102x76	90	116	65	41	30
RSR470	102x102	115	115	65	41	30

Adapts to a 110mm Ø drain



Rainwater diverter

Code	Size	A	B	C
RSRD35	72x72	98	30	500
RSRD15	102x76	98	30	500



Hopper head (standard)

Code	Size	A	B	C	D
RH112	72x72	250	180	180	42
RH115	102x76	250	180	180	44
RH116	102x102	250	180	180	57



Joint Sealant

Code	Description
SC101	310ml Clear

Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



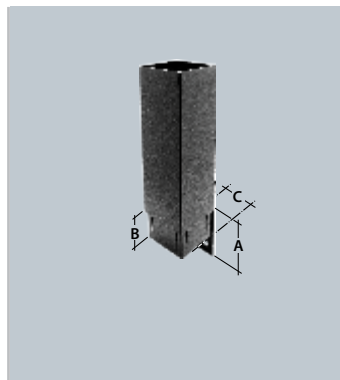
Compatible fixing screws

Code	Description
SC208	No. M6 x 70mm hexagonal coach screws - for downpipe and hopper

All dimensions are in mm. For colour range and finishes, see page 7.
*Please call 01234 358438 for a quote.

Vandal Resistant Downpipes

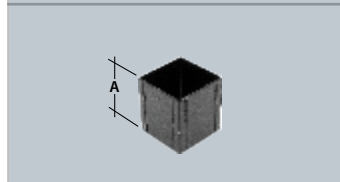
To view compatible gutter systems, see page 38



Downpipe

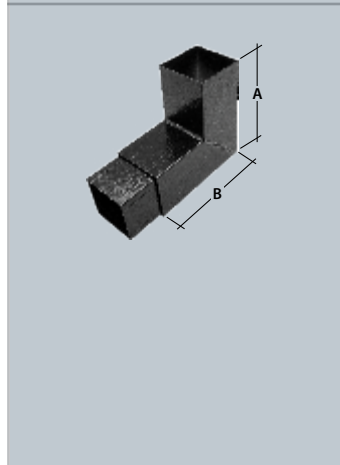
Code	Size	Nominal Length(m)	A	B	C
RVR 313	72x72	3	100	50	72
RVR 113	102x76	3	100	50	102
RVR 413	102x102	3	100	50	102

For direct connection to gutter outlet, or hopper use pipe socket RSR320NE, RSR120NE or RSR420NE



Internal joint spigot

Code	Size	A
RVR 320	72x72	70
RVR 120	102x76	70
RVR 420	102x102	70

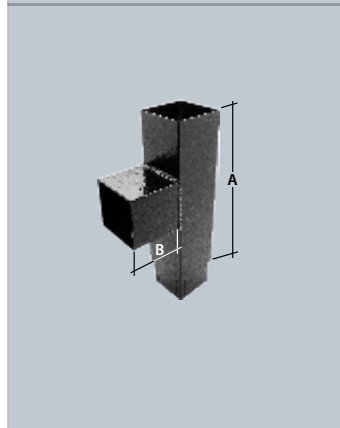


Bend

Code	Size	Angle	A	B
RVR 330	72x72	92.5°	150	150
RVR 332	72x72	112.5°	128	128
RVR 335	72x72	135°	110	110
RVR 130	102x76	92.5°	175	175
RVR 132	102x76	112.5°	150	150
RVR 135	102x76	135°	132	132
RVR 430	102x102	92.5°	198	198
RVR 432	102x102	112.5°	154	154
RVR 435	102x102	135°	141	141

"Fixing Plate" with fixing kit included for on site positioning to required handling
For 102x76mm state if left/right handed or front/rear projection is required

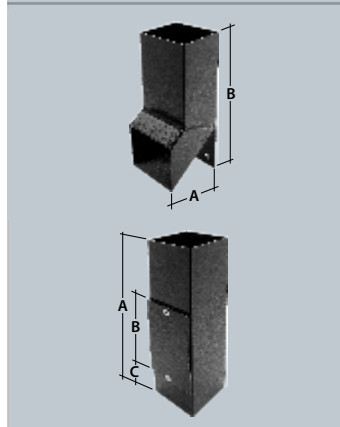
For direct connection to gutter outlet, or use pipe socket RSR320NE, RSR120NE or RSR420NE



Branch

Code	Size	Angle	A	B
RVR 340	72x72	92.5°	260	114
RVR 342	72x72	112.5°	260	130
RVR 345	72x72	135°	260	160
RVR 140	102x76	92.5°	280	140
RVR 142	102x76	112.5°	280	156
RVR 145	102x76	135°	280	164
RVR 440	102x102	92.5°	280	140
RVR 442	102x102	112.5°	280	156
RVR 445	102x102	135°	280	164

A fixing plate with fixing kit is included for on site positioning to required handling
For 102x76mm state if left/right handed or front/rear projection is required

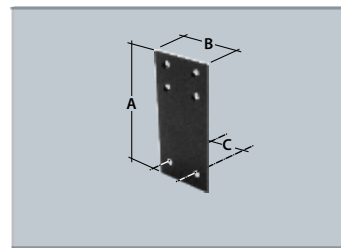


Shoe

Code	Size	A	B
RVR 350	72x72	101	270
RVR 150	102x76	108	270
RVR 450	102x102	140	270

Access pipe

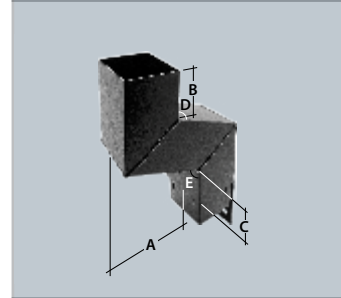
Code	Size	A	B	C
RVR 360	72x72	300	140	105
RVR 160	102x76	300	140	105
RVR 460	102x102	300	140	105



Fixing plate

Code	Size	A	B	C
RVR 380	72x72	150	68	38
RVR 180	102x76	150	98	58
RVR 480	102x102	150	98	58

Supplied complete with fixing kit

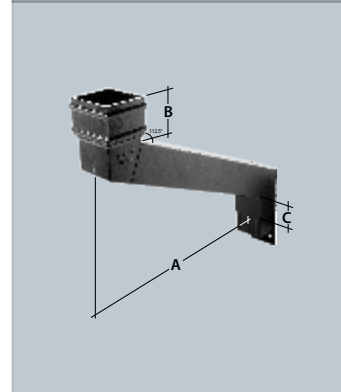


Wall offset

Provide dimensions, A to E as indicated on drawing.

A fixing plate with fixing kit is included for on site positioning to required handling
For 102x76mm state if left/right handed or front/rear projection is required

For direct connection to gutter outlet, use pipe socket RSR320NE, RSR120NE or RSR420NE

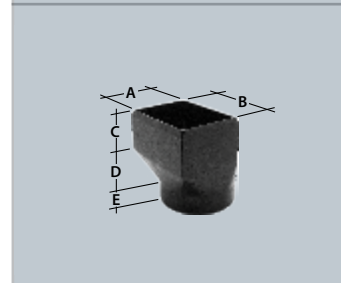


Adjustable eaves offset

Code	Size	A min	A max	B	C
RVR 3945	72x72	75	450	82	60
RVR 3990	72x72	75	900	82	60
RVR 1945	102x76	75	450	82	60
RVR 1990	102x76	75	900	82	60
RVR 4945	102x102	109	450	82	60
RVR 4990	102x102	109	900	82	60

Longer projection offsets available on request.

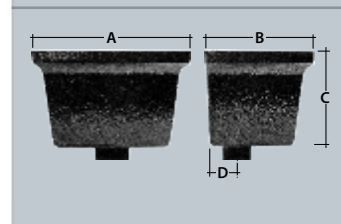
For 102x76mm state if left/right handed or front/rear projection is required



Drain connector (slip socket)

Code	Size	A	B	C	D	E
RSR370	72x72	85	85	65	41	30
RSR170	102x76	90	116	60	41	30
RSR470	102x102	115	115	60	41	30

70mm from wall to centre of 110mm drain connection



Hopper head (standard)

Code	Size	A	B	C	D
RH112	72x72	250	180	180	42
RH115	102x76	250	180	180	44
RH116	102x102	250	180	180	56



Joint Sealant

Code	Description
SC101	310ml clear

Please note sealant shelf life is 12 months. Refer to sealant usage table, page 57.



Compatible fixing screws

Code	Description
SC208	No. 16 x 70mm hex insert domehead For use with hopper head

All dimensions are in mm. For colour range and finishes, see page 7.

Roof Drainage Design

Design basis

Alutec gutter flow capacities shown on pages 52-53 in the flow capacity table are calculated with the gutters being fixed nominally level. Most metal gutters are installed level for aesthetic purposes. However, if installed to a fall of 1:600 the flow capacity will be marginally improved.

Factors to be considered when designing an eaves drainage system.

1. Rainfall intensity design rate (l/s/m²).
2. Effective roof area (ERA) to be drained (m²).
3. Gutter flow capacity (l/s).
4. Size, number and position of outlets.
5. Frictional resistances in long gutter runs and the number of corners.



To assist designers and specifiers we have produced an online rainwater design calculator. The tool guides the user step by step allowing fast and simple roof drainage design whilst ensuring full compliance with BS EN 12056-3 rainwater drainage design standard. Upon completion, a full set of calculations are produced, confirming product suitability.

Rainfall intensity design rate

Building Regulations 2000 Document H3 recommend a general design rate of 0.021 l/s/m² (which is virtually the same as the traditional design rate of 75mm/hour) for eaves gutters where if overflowing occurs, water overspill will discharge clear of the building without risk of water ingress.

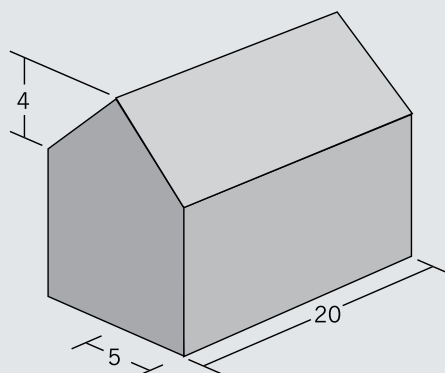
If required, alternative rainfall intensity design rates can also be considered. Meteorological data published in the National Annex to EN12056 and Building Regulations 2000 Document H3, show varying rainfall intensities throughout the UK depending on geographical location.

The flow capacities table (page 32) indicates maximum flow, the gutter being full to the brim, however EN12056 states the design rate run-off from the roof should not exceed 90% of the gutter capacity. Also shown are the differences between outlet capacities when positioned centrally or at the end of a gutter run.

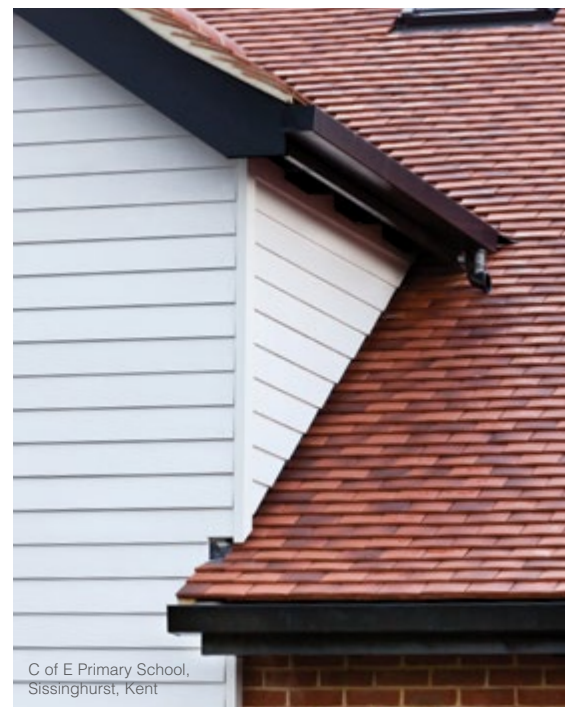
Effective roof area

Effective roof area can be determined by calculation as set out in EN12056-3.

The following example shows a basic calculation method that can be used as a guide in establishing the effective roof area (ERA).



$$ERA = \left(\frac{4}{2} + 5\right) \times 20 = 140m^2$$



Gutter capacity

Assuming the recommended rainfall intensity of 0.021 l/s/m² is acceptable, determine if the gutter outlet is to be positioned centrally, or at the end of the gutter run. Refer to the flow capacities table (page 32) and find the nearest roof area m² in either the 'central' or 'end outlet' options to determine the size/type of gutter/ rainwater pipes required.

Should a different rainfall intensity design rate be required, multiply the alternative design rate by the ERA to establish the required gutter capacity (l/s). Then refer to the flow capacities table and select the nearest gutter flow capacity (l/s). Ensure that appropriate proportional allowances for central or end of gutter outlets are made.

Example:

Alternative design rate
0.025 l/s/m² × 140m² = 3.5 l/s

3.5 l/s into centre outlet =
Aligator® Ogee No. 46
with 63mm Ø outlet

Use our online roof drainage design calculators at
marleyalutec.co.uk/calculators



Frictional resistances

Gutter Angles: EN12056-3 recommends that the gutter capacity should be reduced by a factor of 0.85 if the gutter run includes one or more angles greater than 10 degrees and that positioning of outlets adjacent to angles should be avoided.

Long Gutters: Frictional resistance in very long gutter runs will effectively reduce the flow capacity, hence reduction factors should be applied in accordance with recommendations detailed in EN12056-3.

Valley Discharges: Where a discharge from long valley occurs, it is prudent to consider a corner hopper or purpose made gutter angle with larger catchment area, to cope with the concentrated volume of rainwater during storm conditions.

Compatibility

To avoid bi-metallic corrosion, ensure electrolytically incompatible materials do not come in direct contact with un-insulated plain aluminium surfaces. In particular ensure that the recommended compatible screws and fixings are used. Polyester powder coated surfaces will give limited protection, but should not be solely relied upon. If in doubt, please contact the Alutec Technical Services Department.

Durability

Alutec systems are manufactured from marine grade aluminium and under normal UK atmospheric conditions, Alutec systems if correctly installed have a functional life expectancy of 50 years or more, with minimal maintenance. The life expectancy is likely to be reduced in environmentally aggressive areas.

Chemical

All products are naturally corrosion resistant under normal atmospheric conditions. Not to be used for chemical drainage or in conjunction with foul waste drainage.

Fire

In general Alutec rainwater products do not aid combustion and are rated as follows

Finish rating	Test standard
Plain finish – non combustibility	BS 476: Part 4
PPC – 0.1 fire propagation index	BS 476: Part 6
PPC class 1, flame surface spread	BS 476: Part 7

Thermal

Coefficient for thermal expansion – 0.000026 deg C for cast aluminium and 0.000023 deg C for sheet and extruded aluminium. Melting point approximately 660 deg C.

Non Standard Requirements

To accommodate unusual curves or angles, roofs which intersect at different levels or any other feature of an installation not covered by the standard ranges, Marley Alutec offer a bespoke product service to complement any non standard requirements.

An indication of the most common non standard items are shown below, however other items may be possible. For further advice, contact the Alutec Technical Services department.



True radiused gutters

True radiused gutters can be sand cast to simulate all profiles in the Alutec range. Sand casting involves making a wooden pattern of the gutter profile, to the given radius, from which the sand moulds are made. In view of the pattern cost, this method can be costly for small quantities.

Due to building and foundry tolerances, it is recommended that radiused gutters are made in approximately 1m lengths.



True Radius

Segmented radiused gutters

Achieved by internally welding together segments of machine mitred gutter to achieve a given radius. Dependent on the radius, the more segments introduced the better the appearance.

This method is less expensive than sand casting and in general the segmentation is not easily noticeable on two storey buildings and above.



Segmented Radius

Site dimensions

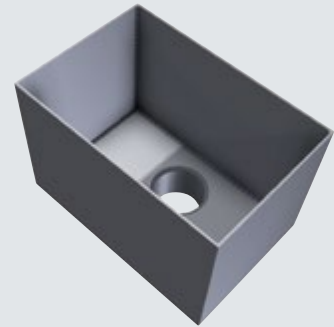
As theoretical radius dimensions are often subject to extreme building tolerances, we recommend that a rigid 1m long radiused template be cut or marked on site. The template should be offered up to the fascia at 1m intervals to check the fascia has been constructed to a uniform radius. The template should be sent to Alutec Technical Services Department for use as a master template.



Private house,
Bodmin, Cornwall

Bespoke hopper heads

Individually designed hoppers can be fabricated from sheet aluminium and a variety of decorative cast motifs and embellishments can be added to enhance the appearance, if required.



Compound gutter angles

Any reasonable degree of angle can be fabricated. However, care must be taken in establishing accurate site dimensions and degrees of angle. Experience has proved that theoretical geometry may not be accurate, hence each angle should be site checked and location referenced.

Special adaptors

Adaptors between different sized rainwater pipes or drain connections can be fabricated to customer requirements, subject to design criteria. Accurate dimensional details are required.

Special gutter outlets

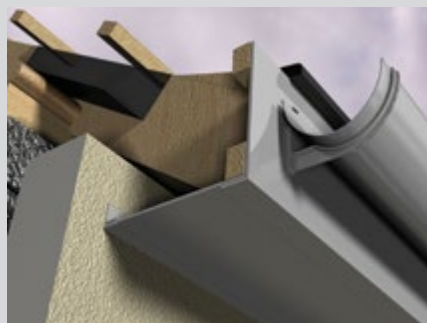
Standard gutter outlets can be modified to customer requirements subject to design criteria. However it should be noted that this may be detrimental to the flow performance of that outlet.

Special pipe and gutter brackets

Special support brackets for use in conjunction with standard or bespoke products are available to order subject to design criteria.

Lightning conductor links

To determine if lightning links are required, it is recommended you consult with a specialist Lightning Protection Consultant or Installer.







Gutter / fascia / soffit assemblies


Evolve Fascia and soffit systems are made to standard designs which can be adapted to suit most applications; see the Evolve fascia and soffit brochure for further information.

Gutter and hopper head flow capacities

Gutter flow rates




Gutter Profile	Downpipe system	End Outlet		Centre Outlet	
		Capacity l/s	Effective Roof Area m ²	Capacity l/s	Effective Roof Area m ²
Half Round 	Evolve 63mm	0.85	41	1.8	87
Deepflow 	Traditional 76mm Ø	2.5	120	4.9	232
	Flush-fit 76mm Ø	2.5	120	4.9	232
Box 	Traditional 76mm Ø	3.0	142	6.0	286
	Flush-fit 76mm Ø	3.0	142	6.0	286
	Traditional 72x72mm	3.5	167	7.0	333
	Flush-fit 72x72mm	3.5	167	7.0	333
Ogee 	Traditional 76mm Ø	3.0	142	6.0	286
	Flush-fit 76mm Ø	3.0	142	6.0	286
	Traditional 72x72mm	3.5	167	7.0	333
	Flush-fit 72x72mm	3.5	167	7.0	333

Hopper head flow rates


	Outlet size mm	Capacity l/s	Effective Roof Area m ²
	63mm Ø	3.0	115
	76mm Ø	4.5	214
	72x72mm	4.4	210

Figures based on a design rainfall intensity of 0.021 l/s/m²

Gutter flow rates

Gutter Profile	Outlet / Downpipe size	End Outlet		Centre Outlet		
		Capacity l/s	Effective Roof Area m ²	Capacity l/s	Effective Roof Area m ²	
100mm Half Round 	All	0.70	33	1.40	66	
	113mm	0.85	40	1.70	80	
	125mm	1.27	60	2.54	120	
100mm Victorian Ogee 	All	0.54	25	1.08	51	
	113mm	63mm Ø	0.62	29	1.20	57
	125mm	76mm Ø, 72x72mm	0.62	29	1.24	59
		63mm Ø	0.75	35	1.60	76
100mm Moulded Ogee 	76mm Ø, 72x72mm, 102x76mm	0.80	38	1.70	80	
	125mm	All	1.15	55	2.25	108
		63mm Ø	2.21	105	3.77	179
		76mm Ø	2.21	105	3.77	179
		102mm Ø	2.21	105	4.48	213
		72x72mm	2.21	105	3.53	168
		102x76mm	2.21	105	4.49	213
	150mm	102x102mm	2.21	105	4.51	214
		63mm Ø	2.75	131	4.90	236
		76mm Ø	2.75	131	4.90	236
102mm Ø		2.75	131	5.50	263	
150mm	72x72mm	2.75	131	3.60	174	
	102x76mm	2.75	131	5.47	263	
	150mm	102x102mm	2.75	131	5.47	263



Hopper head flow rates

	Outlet size mm	Capacity l/s	Effective Roof Area m ²
	63mm Ø	3.01	114.7
	76mm Ø	4.46	214.4
	102mm Ø	7.94	381.7
	72x72mm	4.37	210.1
	102x76mm	7.17	344.7
	102x102mm	9.49	456.3


Figures based on a design rainfall intensity of 0.021 l/s/m²

Gutter and hopper head flow capacities

Gutter flow rates

Gutter Profile	Outlet size	End Outlet		Centre Outlet	
		Capacity l/s	Effective Roof Area m ²	Capacity l/s	Effective Roof Area m ²
Aligator® Classic 120x75mm 	62x62mm	2.15	102	4.13	196
	63mm Ø	2.15	102	4.13	196
Aligator® Deepflow 130x80mm 	63mm Ø, 76mm Ø	2.10	100	4.00	190
	102mm Ø, 72x72mm	2.20	104	4.20	200
	102x76mm	2.20	104	4.20	200
	102x102mm	2.30	109	4.40	209
Aligator® Ogee No. 46 155x100mm 	63mm Ø	3.50	166	5.90	280
	76mm Ø	3.80	180	5.90	280
	102mm Ø	4.00	190	7.60	361
	72x72mm, 102x76mm	3.90	185	7.50	357
	102x102mm	4.10	195	7.60	361
Aligator® Boxer 120x80mm 	63mm Ø	2.27	108	3.39	161
	76mm Ø	2.27	108	3.75	178
	72x72mm	2.27	108	4.26	202
	102x76mm	2.27	108	4.34	206
Aligator® Boxer 135x100mm 	63mm Ø	4.17	198	4.17	198
	76mm Ø	4.38	208	5.92	281
	102mm Ø	4.38	208	5.97	284
	72x72mm	4.38	208	6.49	309
	102x76mm	4.38	208	7.09	337
Aligator® Boxer 160x100mm 	63mm Ø	4.22	200	4.22	200
	76mm Ø	5.25	249	6.06	288
	102mm Ø	5.25	249	6.11	290
	72x72mm	5.25	249	6.68	318
	102x76mm	5.25	249	7.35	350
Aligator® Giant 200x150mm 	76mm Ø	7.84	373	8.67	412
	102mm Ø	7.91	376	8.75	416
	72x72mm	7.92	377	9.59	456
	102x76mm	7.92	377	10.60	504
	102x102mm	7.92	377	10.76	512

Hopper head flow rates

	Outlet size	Capacity l/s	Effective Roof Area m ²
	63mm Ø	3.01	114.7
	76mm Ø	4.46	214.4
	102mm Ø	7.94	381.7
	72x72mm	4.37	210.1
	102x76mm	7.17	344.7
	102x102mm	9.49	456.3

Figures based on a design rainfall intensity of 0.021 l/s/m²



The Rookery, Stockton-on-Tees



East Sussex National Golf Club

Alutec specification clauses

R10 rainwater drainage systems

Alutec has produced an online Specification tool, which produces documents for a wide range of rainwater and eaves products. This can be found online at marleyalutec.co.uk/calculators. Below is an example of a typical specification.

Manufacturer

Marley Alutec, Unit 1 (G – H),
Hudson Road,
Elms Farm Industrial Estate,
Bedford MK41 0LZ
Tel: 01234 359438
Fax: 01234 357199
Email: enquiries@marleyalutec.co.uk
Web address: marleyalutec.co.uk

Product reference

Alutec Aluminium Rainwater
Gutter system

Type/Grade

Aligator® Deepflow – Extruded

Profile

Aligator® Deepflow

Nominal size

Aligator® Deepflow: 130x80mm

Jointing

Aligator® Snap fit joint with
Alutec sealant

Fixing

Aligator® Deepflow – Concealed
fascia bracket

Accessories

Outlet, corner angle, stop end

Product reference

Alutec Aluminium Rainwater
Downpipe system

Profile

Circular

Nominal size

Tudor circular: 63mm Ø,
76mm Ø, 102mm Ø

Fixings

Eared pipe socket / Pipe clip

Finish

Polyester Powder Coated

Accessories

Hopper head rectangular / triangular
flat back / ornamental
Branch
Adjustable offset
Fixed offset
Access pipe
Rainwater diverter
Bend
Shoe

Colour gutter and downpipe

RAL9016, RAL9010, RAL1013,
RAL9006, RAL9005, RAL7035,
RAL7036, RAL7037, RAL7012,
RAL7015, RAL7016, RAL7022,
RAL7021, RAL6005, RAL8016,
RAL8014, RAL8017, BS08B29,
Cast 98 Heritage Black.

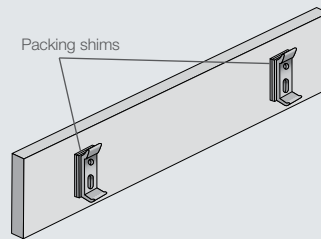
Installation

Preparation

Fascia boards should be in good condition, level and in linear alignment. If required, packing shim plates should be fixed behind gutter brackets to achieve good alignment. Brackets which are misaligned will cause joint fatigue resulting in eventual joint failure.

A range of packing shim plates are available. Where gutter is fixed to cellular fascia board less than 20mm thick, it is recommended that a timber backing board is installed behind the fascia to provide a straight and secure fixing surface.

Use standard metal work tools to cut or drill aluminium gutters. Angle grinders are not recommended. Where gutter or fittings are polyester powder coated, cut edges should be deburred and repainted with touch up paint, SC880.



Prestige new build,
Bedford, Bedfordshire

Gutter position

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

To establish the recommended gutter position, place a straight batten on the lowest profile of the roof covering, overhanging the eaves. The gutter can then be offered not higher than the intersection point (where the top front edge of the gutter and the batten meet.)

Joint sealing must not be carried out in wet weather or in temperatures below 5°C or above 40°C. Joint surfaces must be perfectly clean and dry. Use a clean cloth and solvent cleaner SC108 to remove all traces of dirt or grease, which may not be visible.

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

Full installation guides are available at www.marleyalutec.co.uk.

Fixing

To ensure the secure fixing of aluminium rainwater systems, it is vitally important to ensure that the fixing components are equally durable and capable of providing the necessary support. They must therefore be non corrosive, of a compatible material to ensure no electrolytic corrosion occurs and the appropriate size. Only the recommended austenitic stainless steel screws must be used to fix gutters or downpipes.

Product code	Description
SC201	No. 10 x 30mm Roundhead Fascia Bracket Screw
SC202	No. 10 x 30mm Countersunk Screw Mill
SC501	M6 x 20mm Aluminium Bolt Pack 25
SC531	M6 Aluminium Nut & Washer Set
SC205	No. 12 x 50mm Domehead Screw
SC208	M6 x 70mm Hex Coachscrew
SC209	M6 x 100mm Hex Coachscrew
SC231	No. 12 x 50mm Countersunk Screw
SC241	No. 12 x 50mm Countersunk Screw

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

Snow loading

Heavy snow fall coupled with highly insulated roofs is causing accumulation of snow on roofs. A sudden thaw will then cause the snow to slide down the roof and rest against the gutters if they are fixed too high. Greater care must be taken to make sure the gutters will not impede sliding snow. However, for the ultimate protection, snow guards should be installed in accordance with BS EN12056-3, clause 7.2.2.



Sealant usage table

Approximate number of joints per tube of Alutec sealant



Evolve Half Round	30	Aligator® Classic Ogee	5
Evolve Deepflow	30	Aligator® Deepflow	6
Evolve Box	30	Aligator® Ogee No. 46.....	4
Evolve Ogee	30	Aligator® Boxer 120x80mm	5
Evolve 63mm Ø pipe.....	30	Aligator® Boxer 135x100mm	4
		Aligator® Boxer 160x100mm	4
		Aligator® Giant	3
Traditional Half Round 100mm	18	Tudor 63mm Ø pipe	30
Traditional Half Round 113mm	16	Tudor 76mm Ø pipe	30
Traditional Half Round 125mm	14	Tudor 102mm Ø pipe	30
Traditional Victorian Ogee 100mm	14	Traditional 72x72mm pipe	17
Traditional Victorian Ogee 113mm.....	12	Traditional 102x76mm pipe	13
Traditional Victorian Ogee 125mm	11	Traditional 102x102mm pipe	12
Traditional Moulded Ogee 100mm	11	Flush-fit all pipe sizes	30
Traditional Moulded Ogee 125mm	9	Vandal Resistant all pipe sizes	30
Traditional Moulded Ogee 150mm	7		



Evolve range

Bracket Centres

Gutter brackets must be fixed at minimum of 1m centres.

Jurajoint

Jurajoint is our patented innovative method of jointing aluminium gutter, combining the simplicity of a rubber seal with the security of Alutec Sealant. Sealant SC101 is simply applied in one band into the central channel of the rubber seal. When the joint is snapped together it bonds the rubber seal to the gutter surface achieving a durable, thermally flexible and leak free joint.



Aligator range

Bracket Centres

Gutter brackets must be fixed at a minimum of 750mm centres, except Aligator Classic which should be at a minimum of 1m centres.

Snap fit

The patented Aligator® snap fit joint system is proven to reduce installation times by up to 40% compared to traditional bolted systems. The 'no-bolt' design provides a secure, leak free installation. Each joint is made using four 8mm beads of Alutec sealant.



Traditional range

Bracket Centres

Fascia brackets must be installed at 915mm centres. Direct fix option is only available on Moulded Ogee gutter with fixings at 620mm centres.



General system advice

Site painting

When site painting rainwater systems, it is recommended that all components are individually painted prior to installation to make sure all surfaces are uniformly coated.

Prior to painting polyester powder coated surfaces, clean components using a clean cloth and solvent cleaner, SC108. Prime mill finish surfaces with an "aluminium etch primer" or zinc phosphate; rub down polyester powder coated components with a light abrasive scotch (not steel) wool to achieve a good key.

Two-part synthetic or polyurethane paints are recommended for maximum durability. Ensure the paint is fully dry prior to contact with joint sealant. Partially dry paint may react with sealant, affecting reliability of gutter joint.

Handling & storage

Gutters and pipes should be handled with care and should preferably be stored under cover on racks to prevent scratching or denting. All polyester powder coated gutter and pipe lengths are supplied in protective polythene sleeving and components packed in cardboard boxes.

If polyester powder coated products are stored outside, cover with a tarpaulin to guard against water ingress into the protective polythene tubing. If water becomes trapped within the polythene wrapping and left exposed to warm sunlight, it may leave permanent water stains on the paint finish.

Sealants should not be stored in temperatures below 0°C and kept away from any direct heat source. Solvent cleaners must be stored away from any direct heat or combustible source, preferably in an appropriate fire resistant storage cabinet.

Mill finished goods to be installed in their natural state should also be stored undercover, to prevent uneven oxidization to visible surfaces. Once installed the surface will mature uniformly.

Safety

The relevant safety regulations are outlined in the Health and Safety at Work Act 1974 and should be followed. Refer to the Approved Code of Practice (ACOP) Construction (Design and Communications) Regulations 2007.

Handling mill finished or polyester powder coated aluminium products does not pose any known health hazard, however it is recommended to wear protective gloves when handling mill finish aluminium.

Hazard instructions relating to sealant, solvent cleaner and touch up paint are printed on their respective containers and COSHH sheets are supplied with each consignment of goods and are available on request.

Maintenance

Gutters should be periodically cleaned out and any built-up debris removed to maintain peak performance. Check all fixings are secure and take any remedial action to rectify if necessary.

Leaf guards are available to fit each gutter system and are recommended for buildings close to trees, with restricted access, or areas susceptible to airborne debris.

To maximise the life of the decorative paint finishes, all parts should be washed down with clean water at least every 12 months. This period would be shortened to 6 months in a marine/aggressive environment.

Conformity statement

Marley Alutec aluminium rainwater systems have a functional life-expectancy of 50+ years with minimal maintenance. All products are manufactured using only marine grade aluminium and coated with external grade architectural powders.

Material grades

Castings: *LM6 grade*
Extrusions: *6063 T5 grade*

Standards to which we comply and exceed:

Testing

BS EN ISO 9227:2012 – Corrosion tests in artificial atmospheres. Salt spray tests

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

BS EN 12056-3:2000 – Gravity drainage systems inside buildings. Roof drainage, layout and calculation.

BRE – Wind load testing (Coping)

CRM – Accelerated thermal movement joint test (Gutters)

CRM – Roof gully drainage capacities (Roof outlets)

Fire ratings

BS 476-6 Class 0 – Contribution to the growth of fire (Fascia, soffit & copings)

BS476-7 Class 1 – Surface spread of flame (Fascia, soffit & copings)

EN 13501-1 – A2-s1,d0 (Polyester powder coatings)

EN 13501-1 – Class D (Fascia, soffit & copings)

BS476 – Non-combustible materials (Gutters and pipes)

Manufacture

BS EN 755-2:2013 – Aluminium and aluminium alloys. Extruded rod/bar, tube and profiles. Mechanical properties

BS EN 12020-2:2008 – Aluminium and aluminium alloys. Extruded precision profiles in alloys EN AW-6060 and EN AW-6063. Tolerances on dimensions and form

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

BS EN 1559-2:2014 – Founding. Technical conditions of delivery

BS EN 515:1993 – Aluminium and aluminium alloys. Wrought products. Temper designations

BS EN 573-3:2013 – Aluminium and aluminium alloys. Chemical composition and form of wrought products. Chemical composition and form of products

BS EN 485-2:2013 – Aluminium and aluminium alloys. Sheet, strip and plate. Mechanical properties



Design

BS 8530:2010 – Traditional-style half round, beaded half round, Victorian ogee and moulded ogee aluminium rainwater systems

Specification

BS EN 12056-3:2000 – Gravity drainage systems inside buildings. Roof drainage, layout and calculation

BS EN 1253-2: 2002 – Roof drains and gullies without trap

Accreditation

ISO 14001 – Environmental management systems

The above statements and standards are also published within our product relevant sales literature.

Marley Alutec is part of the Aliaxis Group of Companies, a worldwide conglomerate employing more than 16,000 people, and present in over 45 countries. You can, therefore, rest assured that you are partnering with a well-respected company within our industry.

CE Marking

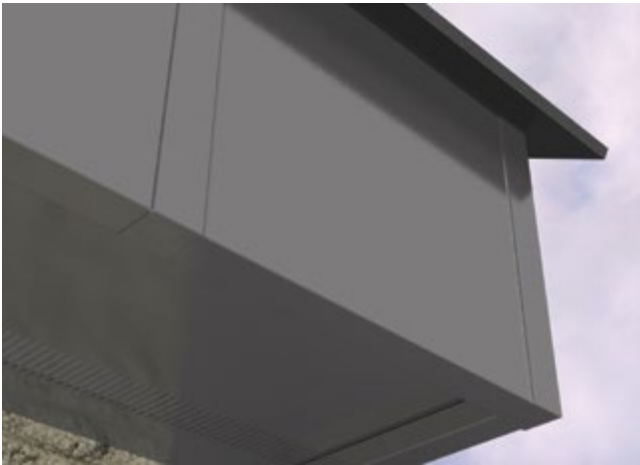
CE Marking is not a requirement for gutters and associated products. For further information please visit the MGMA website.



FASCIA, SOFFIT & COPINGS



This variety of design and installation options allows clients, architects and contractors to make the best choices for their project.



H-Section Joint trim system

The H-Section Joint trim method is as fast and easy to install as PVC with unobtrusive Joint trims hiding fascia and angle joints. The Joint trim option can be fixed with either installation option – mechanical fixing or invisible bonding.



Shadow gap system

Using bespoke one piece corner angles and colour matched silicone sealant in the joints, this system gives the smoothest lines possible*. This aesthetic can be even further enhanced by using the invisible bonding installation method, which removes the need for any visible fixings. This approach delivers a completely sleek finish to enhance any refurbishment or new build project.

* For bespoke shadow gap system, contact Marley Alutec Technical Services on 01234 359438

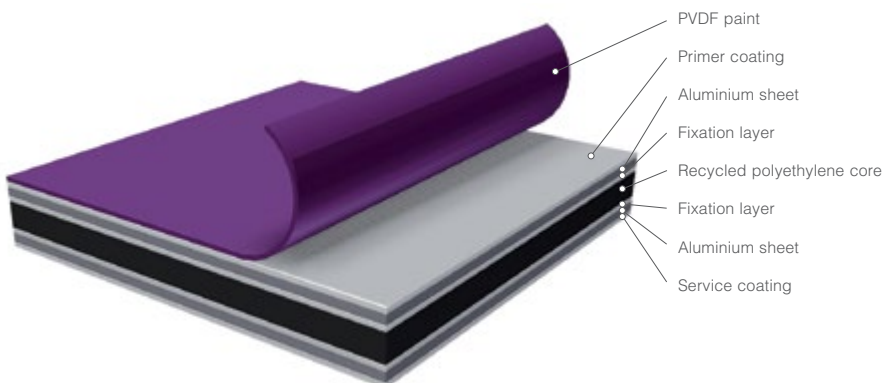
Joint Options

Surface Finish

External faces of Evoke panels are coated with a factory applied three-layer, three bake Kynar 500 fluoro-carbon PVDF external architectural grade paint to a 30 – 40% gloss level. The rear surface is coated with a protective lacquer coating.

Colour Stability

The colour stability is unrivalled by other external grade paint finishes and provides excellent and uniform colour retention throughout its 50 year + functional life expectancy, with minimal maintenance.



Colour Options



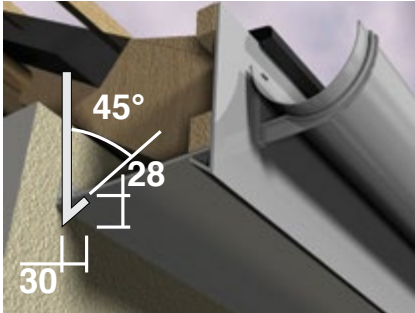
Colours are approximate and for general guidance only. For exact colour and finish reference, colour plates are available on request.

Additional colours are available for special projects subject to a minimum order quantity and lead time. For information on these and the gloss levels, please contact Alutec.

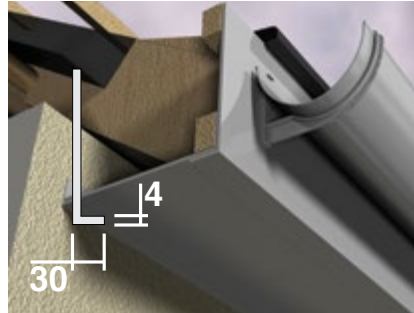
Standard profiles

The Evoke range offers various profiles and sizes to suit different aesthetic and eaves configurations, together with both vented and unvented soffit boards and copings.

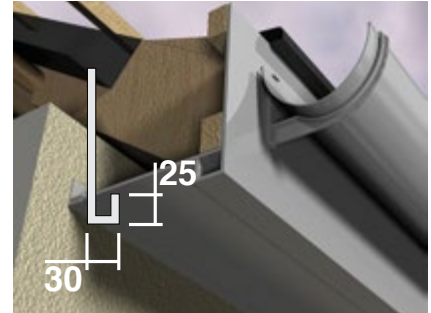
Type A Fascia – 45° angled return



Type B Fascia – L shaped return



Type C Fascia – Box return



Soffit Panel – Unvented



Soffit Panel – Vented



Durability and performance

Evoke aluminium composite fascia and soffit is even more durable than conventional sheet aluminium systems. The colour stability of our PVDF fluoro-carbon paint finish is unrivalled by any other architectural grade paint finish. It provides excellent and uniform colour retention throughout its 50 year + life expectancy.

Strong, rigid and load bearing

Evoke panels can be fixed directly to roof truss ends, eliminating the need for expensive timber backing boards that traditional sheet aluminium systems require. The end result is a completely smooth and ripple free surface for the direct fixing of all Alutec gutters.

Environmental attributes

The core is made from nontoxic recycled polyethylene, at the end of its life, and it can be fully recycled.

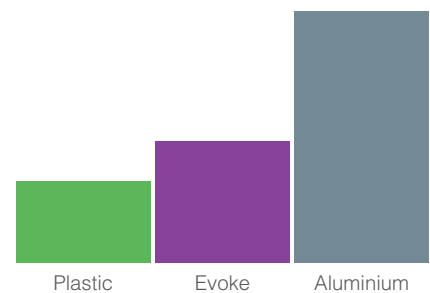
Simple installation

Evoke installs as quickly as PVC and faster than sheet aluminium. The composite nature of the product means that it can be cut, drilled and bent using standard carpentry tools, providing flexibility on site.

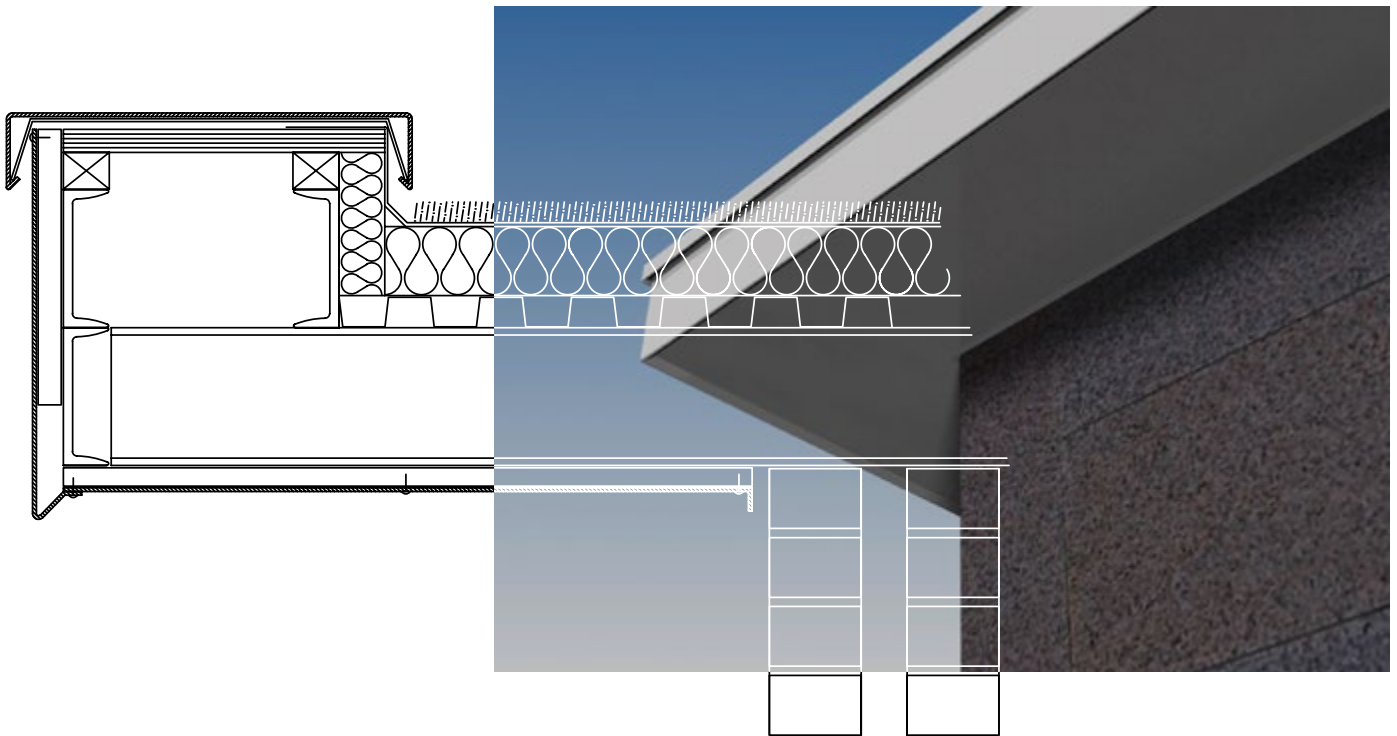
Refurbishment

At only 4mm thick, Evoke is ideal for over-cladding existing fascias or soffits.

Installation Time

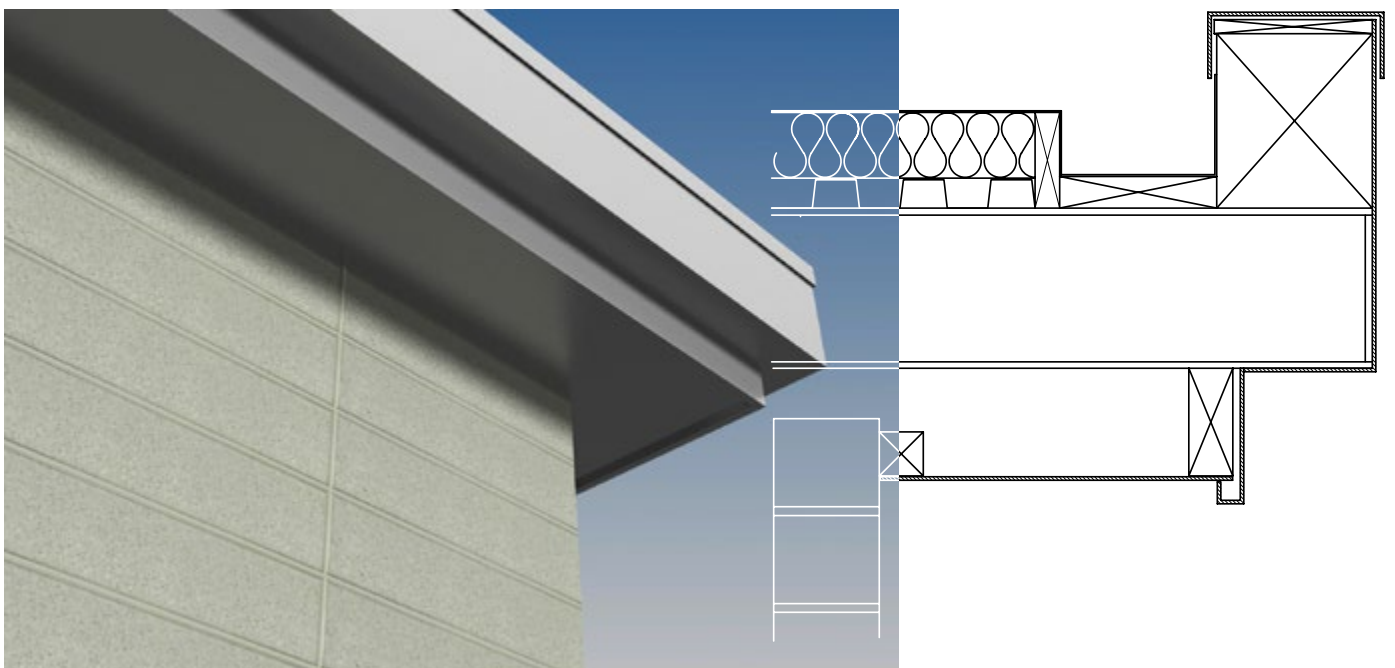




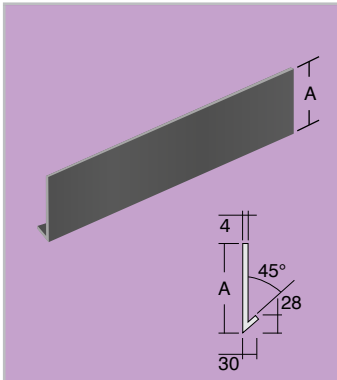


Marley Alutec's experienced Technical Design team is on hand from initial design stage through to completion to ensure the designers' concepts are met. Marley Alutec are on hand to advise on correct, cost effective system application, whilst maintaining the intended visual impact of the design.

Marley Alutec has full 2D and 3D CAD capability to keep communication simple and easy in the exchange of ideas. When the design has been finalised, we produce manufacturing drawings for client approval prior to site installation. At final installation stage we will then work with the installers to ensure a smooth installation process.



Fascia type A



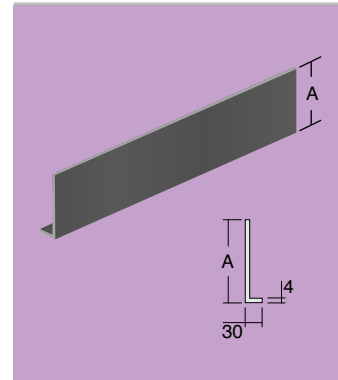
Fascia A – 3m

30mm Return, 50°

Code	A
FA1120	120mm
FA1165	165mm
FA1200	200mm
FA1250	250mm
FA1325	325mm
FA1450	450mm

Non standard sizes available on request ^①

Fascia type B

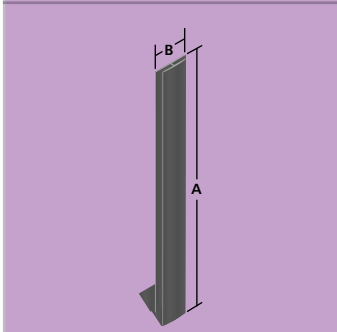


Fascia B – 3m

30mm Return, 90°

Code	A
FB1150	150mm
FB1175	175mm
FB1210	210mm
FB1260	260mm
FB1335	335mm
FB1460	460mm

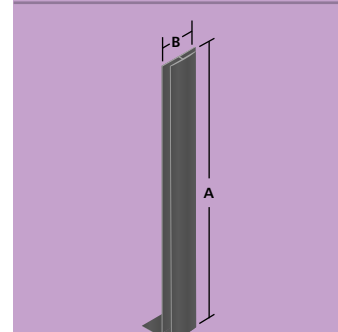
Non standard sizes available on request ^①



H-Section joint trim

Code	A	B
FA21	300mm	31mm
FA22	500mm	31mm

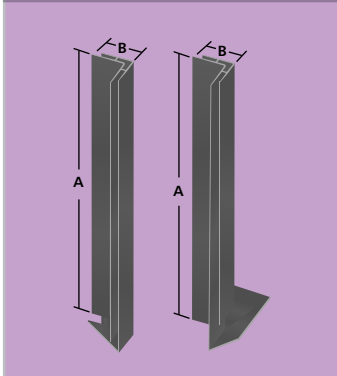
Site cut as required



H-Section joint trim

Code	A	B
FB21	300mm	31mm
FB22	500mm	31mm

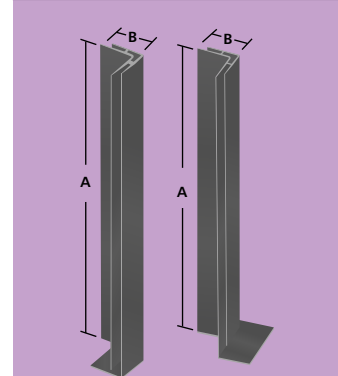
Site cut as required



H-section corner joint trim 90°

Code		A	B
FA61	External	300mm	31mm
FA62	External	500mm	31mm
FA71	Internal	300mm	31mm
FA72	Internal	500mm	31mm

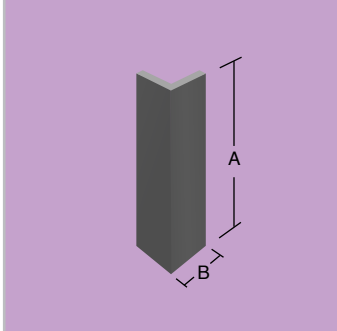
Site cut as required



H-section corner joint trim 90°

Code		A	B
FB61	External	300mm	31mm
FB62	External	500mm	31mm
FB71	Internal	300mm	31mm
FB72	Internal	500mm	31mm

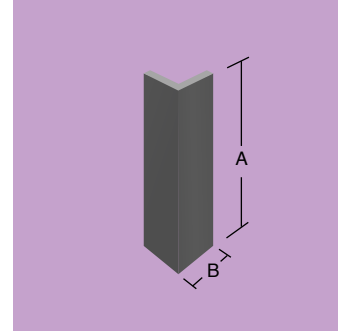
Site cut as required



Universal angle cover trim

Code	A	B
FA30	1000mm	31mm

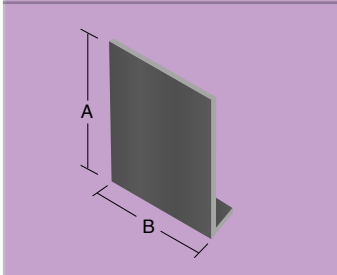
Site cut and bend as required. Install using a rubber roller or equivalent



Universal angle cover trim

Code	A	B
FB30	1000mm	31mm

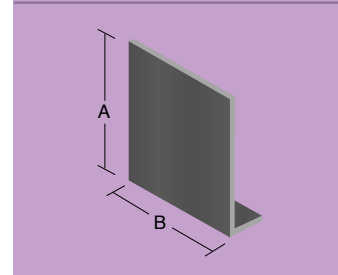
Site cut as required



Gable box end

Code	A	B
FA51	350mm	450mm
FA52	350mm	600mm
FA53	650mm	600mm

Site cut as required



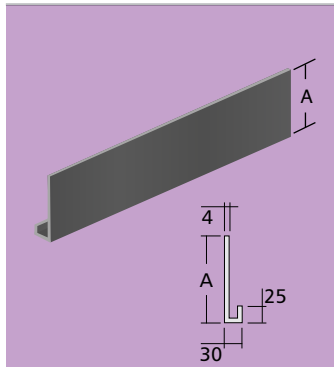
Gable box end

Code	A	B
FB51	350mm	450mm
FB52	350mm	600mm
FB53	650mm	600mm

Site cut as required

All dimensions are in mm, unless otherwise stated. ^① Please call Alutec for a quote.

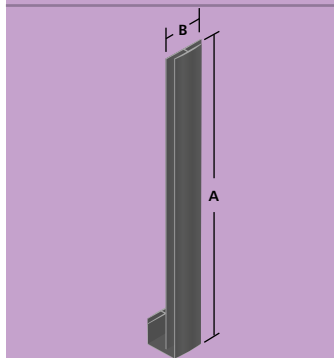
Fascia type C



Fascia C – 3m 30x25mm Return

Code	A
FC1150	150mm
FC1185	185mm
FC1235	235mm
FC1310	310mm
FC1435	435mm

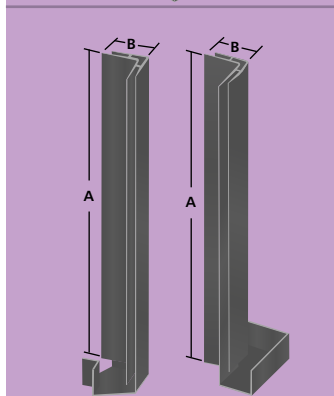
Non standard sizes available on request ^①



H-Section joint trim

Code	A	B
FC21	300mm	31mm
FC22	500mm	31mm

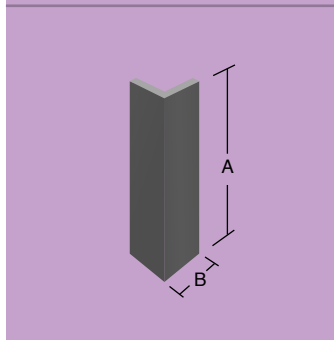
Site cut as required



H-section corner joint trim 90°

Code		A	B
FC61	External	300mm	31mm
FC62	External	500mm	31mm
FC71	Internal	300mm	31mm
FC72	Internal	500mm	31mm

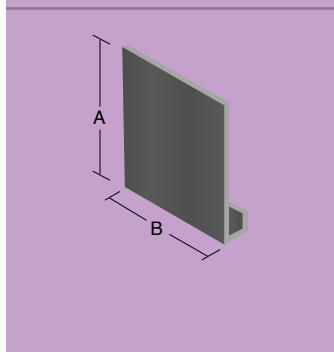
Site cut as required



Universal angle cover trim

Code	A	B
FC30	1000mm	31mm

Site cut as required

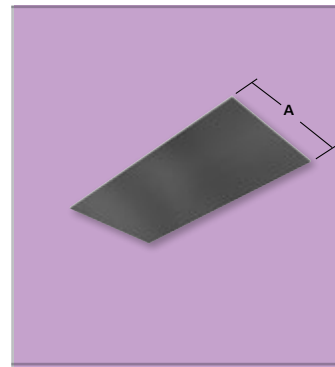


Gable box end

Code	A	B
FC51	350mm	450mm
FC52	350mm	600mm
FC53	650mm	600mm

Site cut as required

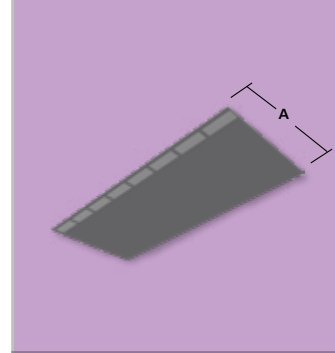
Soffit system



Soffit panel unvented – 3m

Code	A
FF1100	100mm
FF1180	180mm
FF1240	240mm
FF1365	365mm
FF1490	490mm
FF1740	740mm

Non standard sizes available on request ^①

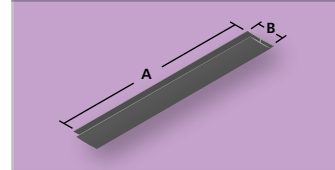


Soffit panel vented – 3m

Code	A
FV1100	100mm
FV1180	180mm
FV1240	240mm
FV1365	365mm
FV1490	490mm
FV1740	740mm

Slotted to give 25mm continuous ventilation area

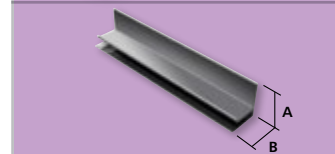
Non standard sizes available on request ^①



H-Section joint trim

Code	A	B
FF21	1000mm	31mm

Site cut as required



Soffit support trim - 3m

Code	A	B
FF30	30mm	25mm

Installation sundries

Polypin

Code	Description
SC670	2 x 30mm - colour matched 100 per bag

Poly nail

Code	Description
SC280	3 x 50mm – fixing fascia where gutter will hide fixing - 100 per bag

Screw fixing

Code	Description
SC203	No. 10 x 15mm countersunk – fixing gutter brackets to fascia - 100 per bag
SC675	No. 8 x 25mm flangehead – alternative to polypin fixing - colour matched

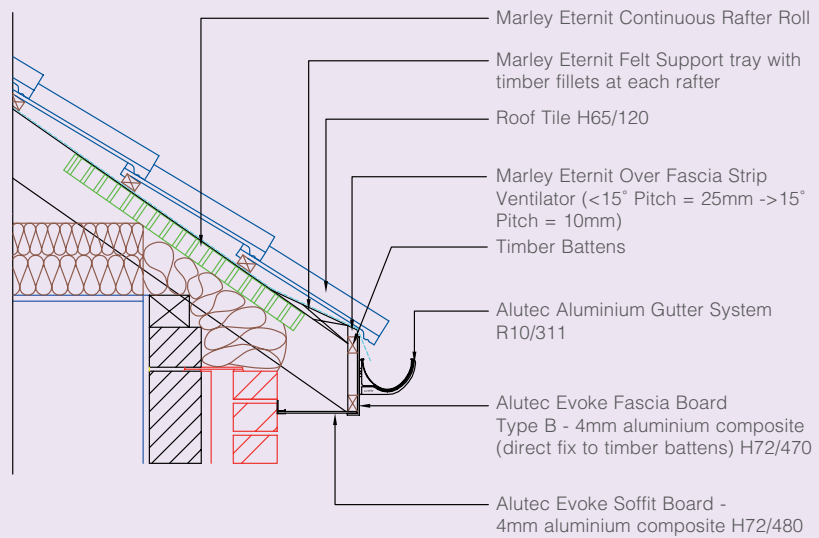
Sealant

Code	Description
SC103	Silicone sealant – colour matched

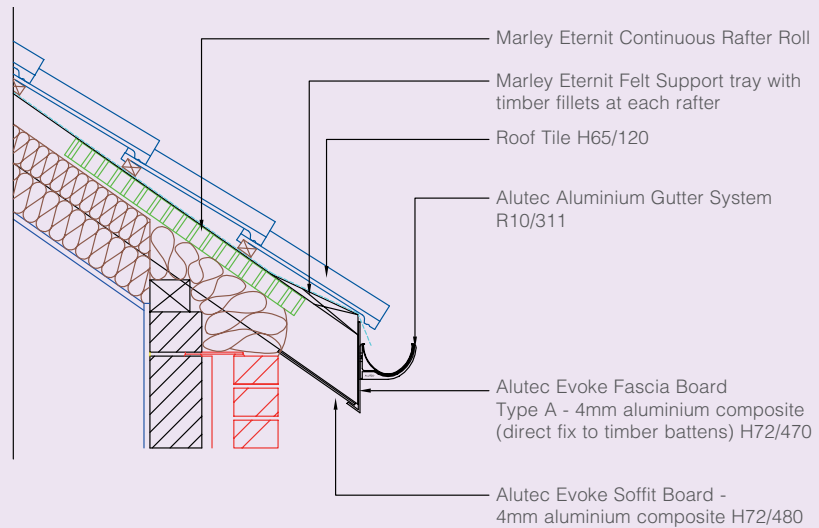
Invisible bonding system

Code	Description
FY40	Bonding back plate 3m - For use with Sikatak® Panel System Site cut as required
	Sikatak® Panel System - - For use with Bonding back plate 3m. Contact Alutec Technical Services department for further details.

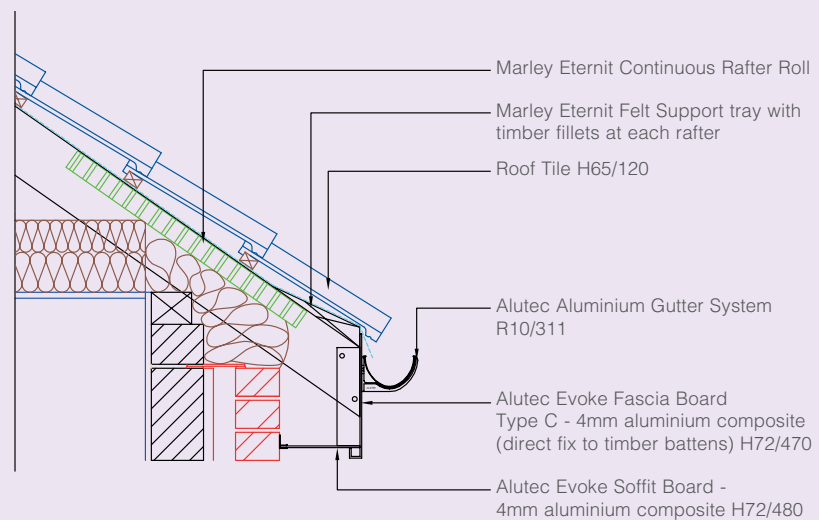
Top Vented Fascia



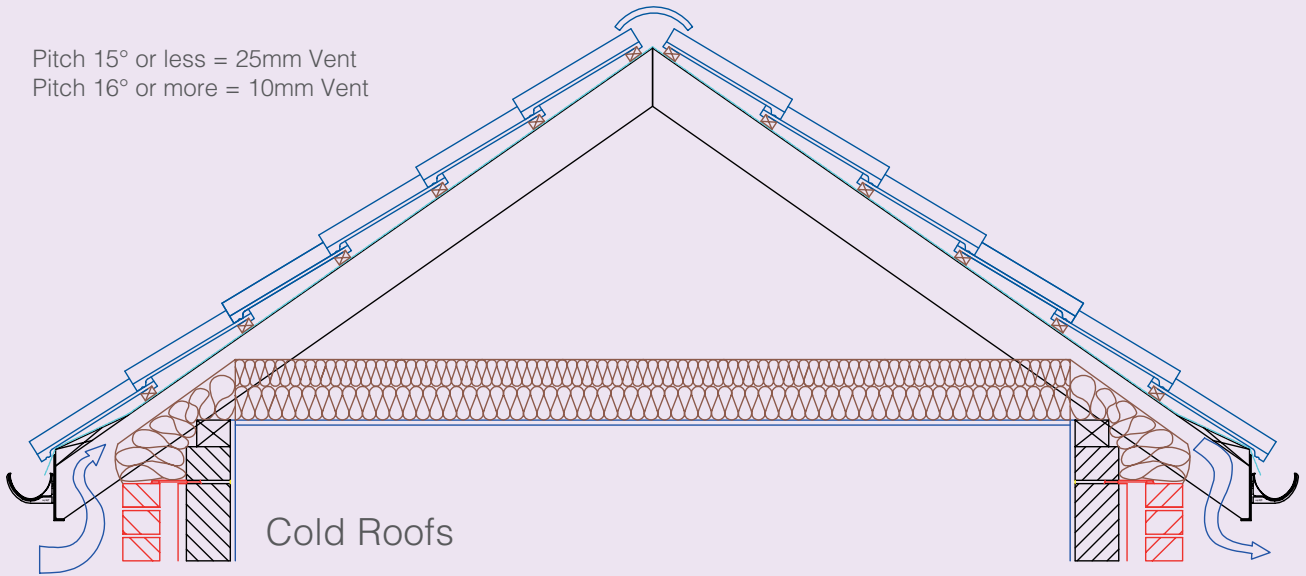
Angled Soffit Panel



Deep Fascia



Pitch 15° or less = 25mm Vent
 Pitch 16° or more = 10mm Vent

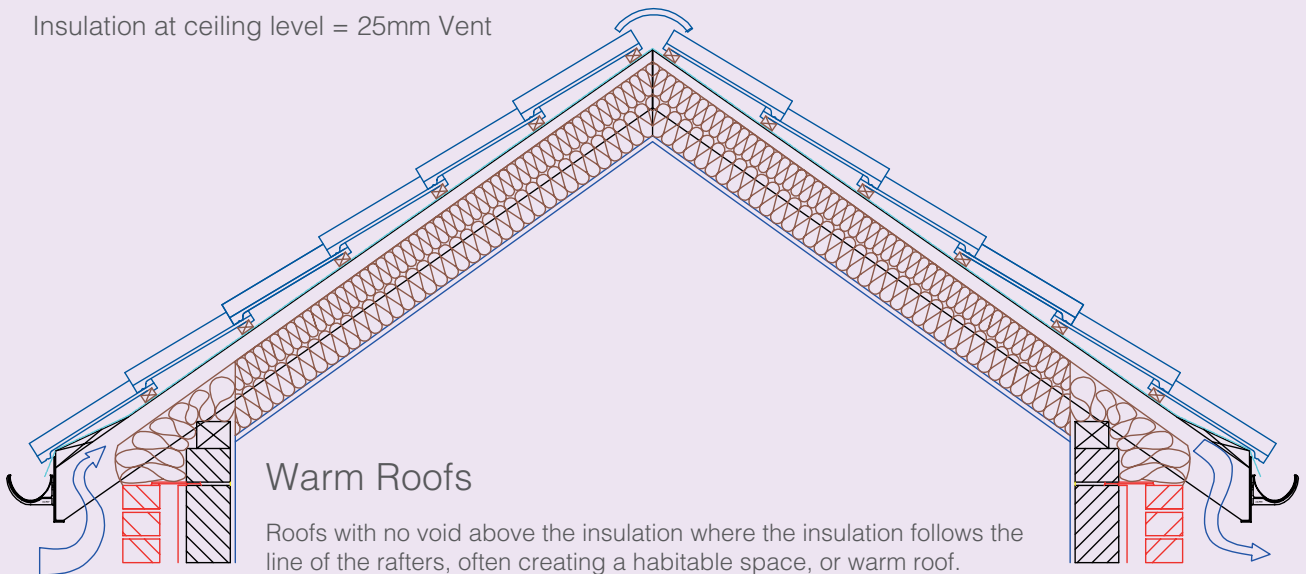


Cold Roofs

Roofs with a large void above the insulation where insulation is at ceiling level and the void is therefore uninhabited and cold.

- 25mm along the length of the eaves for pitches of 15° or less
- 10mm along the length of the eaves for pitches of more than 15°

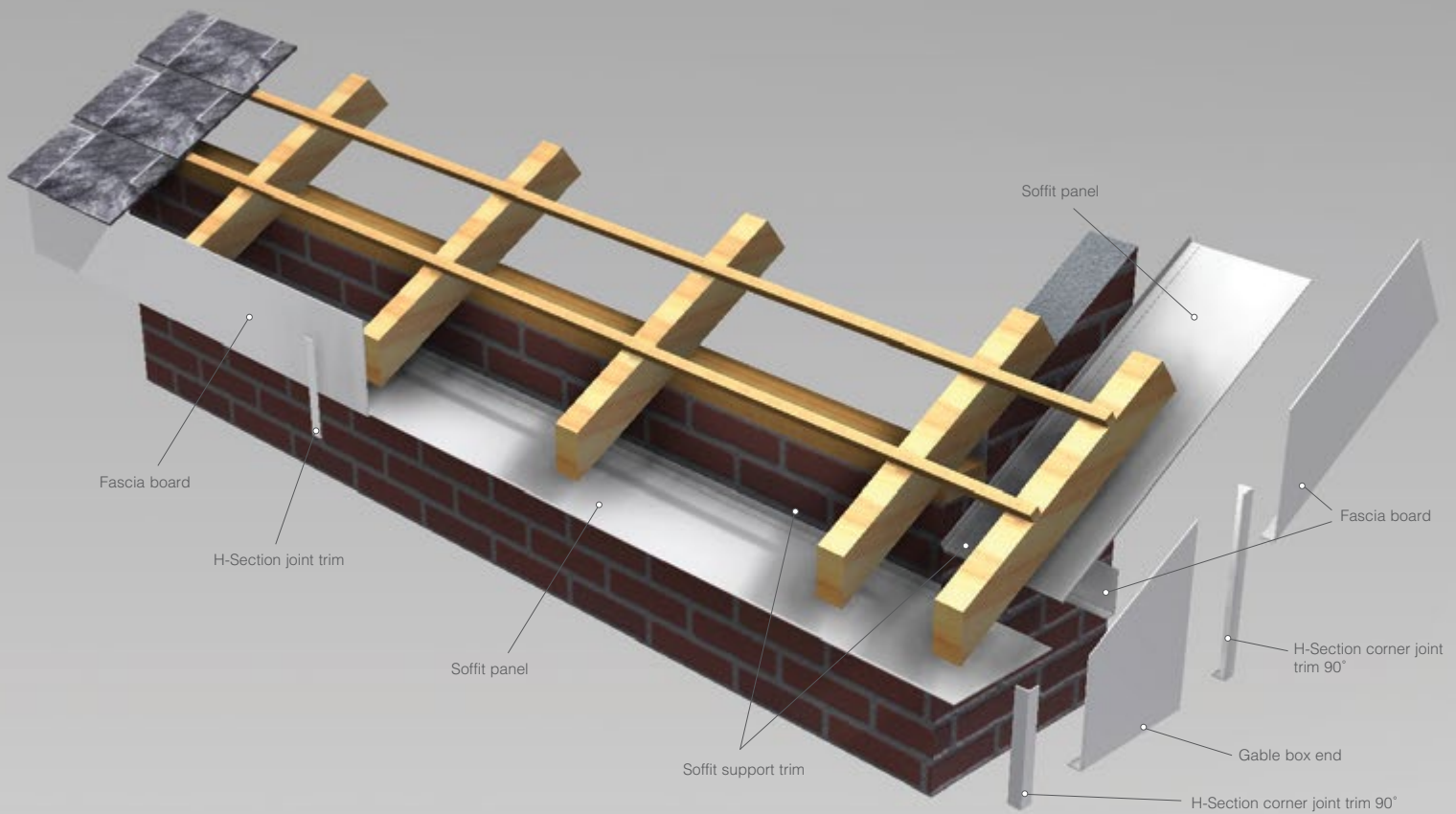
Insulation at ceiling level = 25mm Vent



Warm Roofs

Roofs with no void above the insulation where the insulation follows the line of the rafters, often creating a habitable space, or warm roof.

- Low level openings should be equivalent in area to a continuous opening of not less than 25mm along the length of all the eaves



Evoke installation

Full installation instructions are provided with each delivery and can also be downloaded from www.marleyalutec.co.uk



Cutting

Cut, drill and fix using standard wood working tools. De-burr edges after cutting.



Forming & bending

Small pieces can be bent on site by grooving the rear face with a router, then bending the material upwards to the required angle.



For detailed information, refer to the full Evoke installation instructions.



Fixing fascia & soffit

Evoked fascia and soffit panels can be either mechanically fixed with Alutec polytop annular nails or bonded with Sikatack® - Panel System.



Joint abutments

Joint abutments can be covered with a H-Section Joint trim or the 4mm expansion gap can be neatly pointed with colour matched Joint sealant SC103 to give a shadow gap appearance.

Fixing Gutters

Gutters can be fixed directly to Evoked fascia panels without the requirement of a backing board.

Compatibility

Evoked aluminium composite sheet is compatible with most building materials, with the exception of direct or indirect contact with copper or direct contact with zinc onto unpainted surfaces of the aluminium facing. If fixing to zinc or galvanized surfaces, it is recommended that an isolative membrane is fitted between touching surfaces. Aluminium composite is resistant to alkali, acids and salt spray corrosion, hence ideal for installation in a marine environment. For further guidance please contact the Alutec Technical Services Department.



Vanwall Project

Product specification clauses

H72 Aluminium Strip/Sheet Coverings/Flashings

Alutec has produced an online Specification tool, which produces documents for a wide range of rainwater and eaves products. This can be found online at marleyalutec.co.uk/calculators. Below is an example of a typical specification.

Products

EVOKE ALUMINIUM COMPOSITE FASCIA AND SOFFIT SYSTEM

<p>470 Fascia Manufacturer: Marley Alutec, Unit 1 (G-H), Hudson Road, Elms Farm Industrial Estate, Bedford MK41 0LZ Tel: 01234 359438, Fax: 01234 357199. Email: enquiries@marleyalutec.co.uk Reference: Aluminium composite fascia system Profile: Type A, Type B, Type C (Delete as appropriate) Size: To be determined Type / grade: 4mm thick aluminium composite. Polyethylene thermal break between external surfaces. Finish: Kynar 500 fluorocarbon PVDF paint system including nano self cleaning additive Colour: From manufacturer's standard range TBC Functional life expectancy: 50 years Fire resistance: BS476: Part 6 Class 0, BS476: Part 7 Class 1 Thermal resistance: 0.013m2.KW Sound insulation: 26dB Jointing: Joint trim or pointed silicone (Delete as appropriate) Fixing: Direct fix to structure at 600mm centres.</p>	<p>480 Soffit Manufacturer: Marley Alutec, Unit 1 (G-H), Hudson Road, Elms Farm Industrial Estate, Bedford MK41 0LZ Tel: 01234 359438, Fax: 01234 357199. Email: enquiries@marleyalutec.co.uk Reference: Aluminium composite soffit system Profile: Unvented, Vented (Delete as appropriate) Size: To be determined Type / grade: 4mm thick aluminium composite. Polyethylene thermal break between external surfaces. Finish: Kynar 500 fluorocarbon PVDF paint system including nano self cleaning additive Colour: From manufacturer's standard range TBC Functional life expectancy: 50 years Fire resistance: BS476: Part 6 Class 0, BS476: Part 7 Class 1 Thermal resistance: 0.013m2.KW Sound insulation: 26dB Jointing: Joint trim or pointed silicone (Delete as appropriate) Fixing: Direct fix to structure at 600mm centres.</p>
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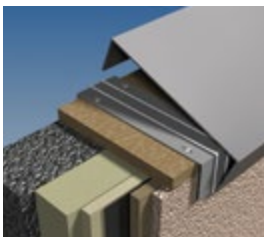
Magnolia House Support Centre,
Birmingham Children's Hospital

The Evoke coping range

The Evoke coping range is designed to meet the highest standards of durability and to withstand the most extreme weather the UK can throw at it.

Wind loading

Tested by a UK based independent building research centre to withstand hurricane force winds of up to 176mph; 24% greater than the highest ever recorded UK wind speed of 142mph.



Weathertight

Superior butyl adhesive seal, which outlasts EPDM compression seals normally used in coping systems and maintains a 100% weathertight seal throughout its life expectancy of 50 years or more.

Strong & rigid

At 4mm thick, Evoke coping panels create perfectly smooth and flat surfaces, which will not bow or ripple like thinner gauge materials.

Colour stable

Available in 10 PVDF fluorocarbon paint finishes - the most colour stable architectural grade paint finish available.

Sustainable

At the end of its long life expectancy, Marley Alutec coping systems can be fully recycled.

Durable

Comprising a recycled polyethylene core with an aluminium skin, Marley Alutec coping systems are as durable as sheet aluminium systems, giving them a functional life expectancy of 50 years or more with minimal maintenance.

Fast & simple installation

Evoke coping panels are fast to position and fix. Whilst on-site adjustments can be made quickly and easily with standard carpentry tools and skills, saving valuable installation time and cost.



Surface Finish

External faces of Evoke panels are coated with a factory applied three-layer, three bake Kynar 500 fluoroacarbon PVDF external architectural grade paint to a 30 – 40% gloss level. The rear surface is coated with a protective lacquer coating.

Colour Stability

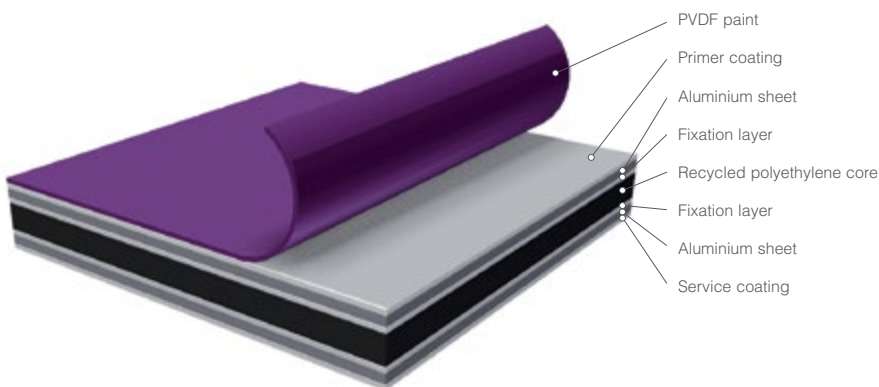
The colour stability is unrivalled by other external grade paint finishes and provides excellent and uniform colour retention throughout its 50 year + functional life expectancy, with minimal maintenance.

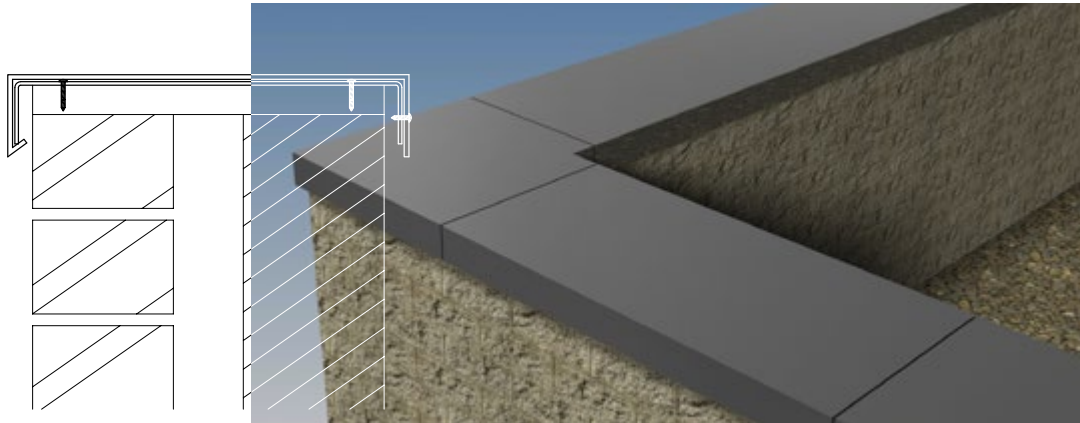
Colour Options



Colours are approximate and for general guidance only. For exact colour and finish reference, colour plates are available on request.

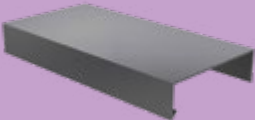
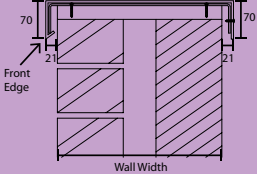
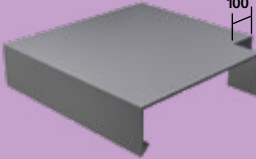
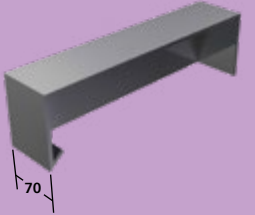
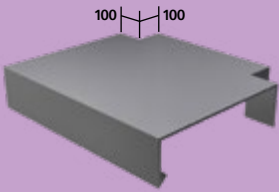
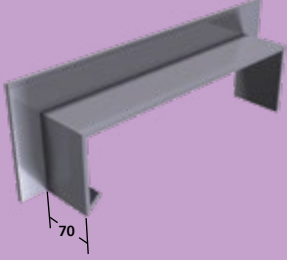
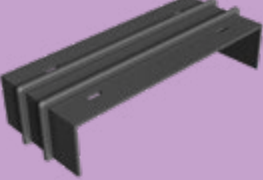
Additional colours are available for special projects subject to a minimum order quantity and lead time. For information on these and the gloss levels, please contact Marley Alutec.





Every project is different, so Marley Alutec works with each client to ensure optimum performance of the system is achieved and costs kept to a minimum, whilst maintaining the clients' intended design and visual impact. Once designs are agreed, we produce manufacturing drawings for client approval. Support is available to installers upon request to ensure a smooth installation process.

Evoke coping system components

 	<p>Coping - 3m</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Wall width ranges</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>Bespoke, cut to size to fit exact wall width</td> </tr> </tbody> </table> <p>Please state precise wall width with estimate request or order. Coping cut to size by Marley Alutec to fit exact wall width.</p>	Code	Wall width ranges	-	Bespoke, cut to size to fit exact wall width		<p>Angle 90°</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Wall width ranges</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>Bespoke, cut to size to fit exact wall width</td> </tr> </tbody> </table> <p>Please state precise wall width with estimate request or order. Angle cut to size by Marley Alutec to fit exact wall width.</p>	Code	Wall width ranges	-	Bespoke, cut to size to fit exact wall width
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	<p>Stop end</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Wall width ranges</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>Bespoke, cut to size to fit exact wall width</td> </tr> </tbody> </table> <p>Please state precise wall width with estimate request or order. Stop end cut to size by Marley Alutec to fit exact wall width.</p>	Code	Wall width ranges	-	Bespoke, cut to size to fit exact wall width		<p>T-Junction 90°</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Wall width ranges</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>Bespoke, cut to size to fit exact wall width</td> </tr> </tbody> </table> <p>Please state precise wall width with estimate request or order. T-Junction cut to size by Marley Alutec to fit exact wall width.</p>	Code	Wall width ranges	-	Bespoke, cut to size to fit exact wall width
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Code	Description										
SC204	No. 8 x 25mm flangehead screw										
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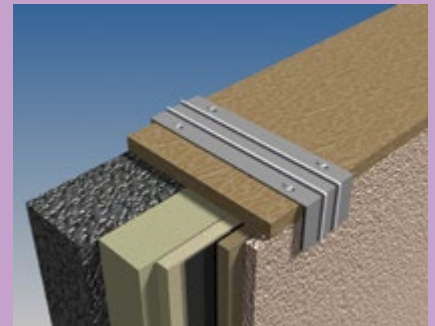
F30 Accessories/Sundry items for brick/block/stone walling - Product specification clauses

PRODUCTS

EVOKE ALUMINIUM COMPOSITE COPING SYSTEM

780	Coping
Manufacturer:	Marley Alutec, Unit 1 (G-H), Hudson Road, Elms Farm Industrial Estate, Bedford MK41 0LZ Tel: 01234 359438, Fax: 01234 357199
Email:	enquiries@marleyalutec.co.uk
Reference:	Aluminium composite coping system
Size:	Size: To be determined
Type/grade:	4mm thick aluminium composite. Polyethylene thermal break between external surfaces.
Finish	Kynar 500 fluorocarbon PVDF paint system including nano self cleaning additive
Colour	From manufacturer's standard range TBC
Functional life expectancy:	50 years
Wind loading:	Independently tested to withstand hurricane force winds
Fire resistance:	BS476: Part 6 Class 0, BS476: Part 7 Class 1
Thermal resistance:	0.013m ² .KW
Sound insulation:	26dB
Jointing:	Internal jointing – Weather tight butyl seal
Fixing:	Secret fix to structure at 1.5m centres with Aluminium Brackets in accordance with Alutec installation guide. Visible fixings to be colour matched.

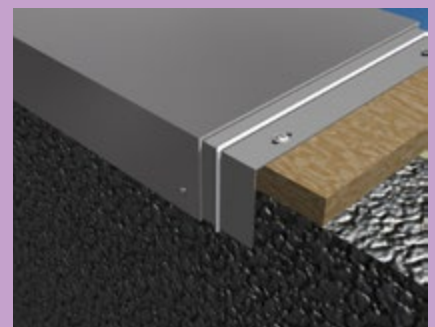
Full installation instructions are provided with each delivery and can also be downloaded from www.marleyalutec.co.uk



Fixing brackets must be located centrally at each coping joint abutment and spaced at maximum 1.5m centres



Offer coping panel into place by hooking the front drip edge over the fixing brackets. Rotate panel downwards until in its resting position



Fix coping length to Fixing bracket using Alutec Flangehead screws.

A 3mm expansion gap must be left between coping lengths and the joint pointed with Alutec colour matched Joint sealant



Weight:

5.5kg / m².

Rigidity:

kNcm²./m 0.240

Tensile strength: 15.0.kgf/mm²

Linear thermal expansion at 100° C thermal difference:
2.4mm/m

Temperature resistance:

-50°C to + 80° C

Sound insulation:

26 dB

Thermal Resistance:

0.013m².KW ±25%

Thermal Conductivity:

0.317 W/m.k ±28%

Polyethylene 'Thermal Break' between external aluminium surfaces

Fire ratings:

BS 476-6 Class 0

BS 476-7 Class 1

General systems advice

Maintenance

To maximise the life of the decorative paint finishes, all parts should be washed down with clean water at least every 12 months. This period would be shortened to 6 months in a marine/aggressive environment.

Storage and handling

All goods should be stored under cover to protect against ingress of water between surfaces of composite aluminium sheets. Flat panels should be stored fully supported on a flat surface. Profiled lengths should also be fully supported throughout the product length and appropriately stacked to avoid damage to the profile.

Ensure that the self-adhesive peel off protective cover is not damaged during handling exposing the painted surface to potential damage.

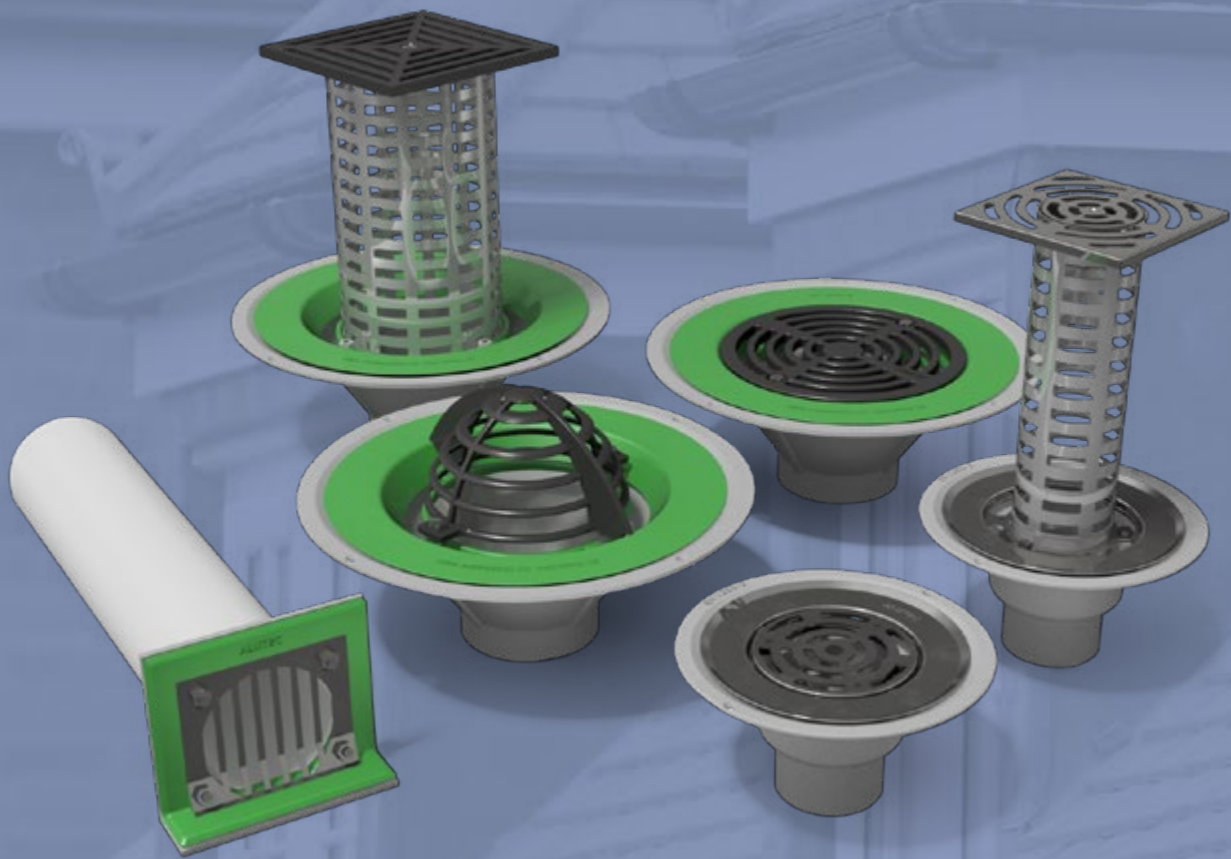
Safety

The relevant safety regulations are outlined in the Health and Safety at Work Act 1974 and should be adhered to.

Refer to the Approved Code of Practice (ACOP) Construction Design and Management Regulations 2007.

Handling composite aluminium products does not pose any known health hazard, however it is recommended that protective gloves are worn. Hazard instructions relating to sealant and solvent cleaner are printed on the product packaging. COSHH sheets are supplied with each consignment of goods and are also available on request.

OUTLETS





Elite systems

Marley Alutec has developed a revolutionary range of aluminium roof and balcony drainage outlets compatible with all waterproofing membranes and roof build-ups.

Elite rainwater drainage outlets, together with ancillary components, are suitable for use with bituminous, hot melt, GRP, single ply, asphalt and cold liquid applied membranes to:

- Cold roofs
- Warm roofs
- Inverted roofs
- Green roofs
- Terraces
- Balconies
- Podiums
- Walkways
- Paved areas
- Car parks

Unbeatable drainage flow performance

Elite outlets have been engineered for unbeatable drainage flow performance and in most cases are only restricted by the maximum allowed water capacity of the connecting pipework!

Save on project costs by reducing rainwater pipe requirements

Compared to many conventional outlets, Elite performance figures reduce the number of outlets required to drain an area, thereby reducing the rainwater pipe and underground drainage requirements, offering significant savings.

Optimum watertight seal

Elite outlets membrane compression clamp design, combined with a high-performance butyl sealing ring, securely lock the waterproof membrane to the outlet body ensuring a durable watertight seal.

Sustainable material with 50 year life expectancy

All outlet components are manufactured from marine grade aluminium to give an extensive life expectancy of at least 50 years. Aluminium is well known for its durable characteristics and will never corrode or degrade. Marine grade aluminium, together with the 304 grade stainless steel fixings, ensures compatibility and durability.

Tested to extremes!

Typically, within roof drainage design, the peak rainwater design depth at an outlet will not exceed 35mm. To ensure ultimate reliability and confidence, the Elite outlet range has been rigorously tested to withstand water depths surpassing 1m.

Prevents cold bridging

The Elite range incorporates PVCu pipe connectors, providing an air tight seal and thermal break between the outlet body and connecting pipework.

Connects to all common pipe sizes

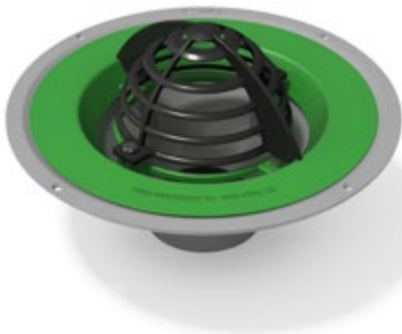
Our roof outlet range connects to all common PVCu, HDPE and socketless cast iron pipework sizes.

Balcony outlets connect to aluminium (76mmØ & 72x72mm), PVCu (82mmØ & 110mmØ) and socketless cast iron (70mmØ & 100mmØ) pipework.

Fire protection

The threaded PVCu pipe connectors are manufactured from BS EN 1329 pipework and are therefore suitable for use with pipe wraps and fire collars.

Outlet options - Roof



Roof outlet - Dome grate



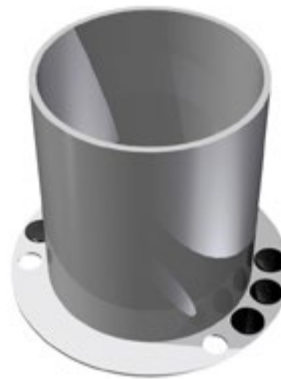
Roof/Car Park outlet - Flat grate



Roof outlet - Extended grate



Parapet/Gully outlet



Blue roof outlet restrictor

Outlet options - Balconies



Balcony outlet



Balcony Outlet - Terrace Grate

Roof drainage design

Online design tool

The Elite range comes complete with an online drainage design tool, in full compliance with BS EN12056-3, allowing fast and simple drainage design whilst ensuring correct product specification.

www.marleyalutec.co.uk



The tool provides the user with a full set of drainage calculations to confirm suitability of product along with links to detailed product specific information. Our Technical Services department are also on hand to assist with any drainage design queries. Contact tel: 01234 359438.



Practical design recommendations

Rainwater outlet positioning

Outlets should be distributed as evenly as possible throughout the roof areas in order to accept an equal proportion of the rainwater runoff.

Emergency outlets/overflows

Overflows should be included within the design of all flat roofs and balconies with perimeter upstands greater than 50mm. Overflows indicate if there is a maintenance requirement and prevent rainwater over spilling into the building's fabric or causing structural overloading.

Accessibility

All outlets should be clearly identifiable and accessible for maintenance. Outlet gratings should not be covered over by pavers, decking, plant material, ballast etc.

Maintenance

For optimum performance, ensure roof outlets are inspected and cleaned every six months to ensure peak operation.

Pipework

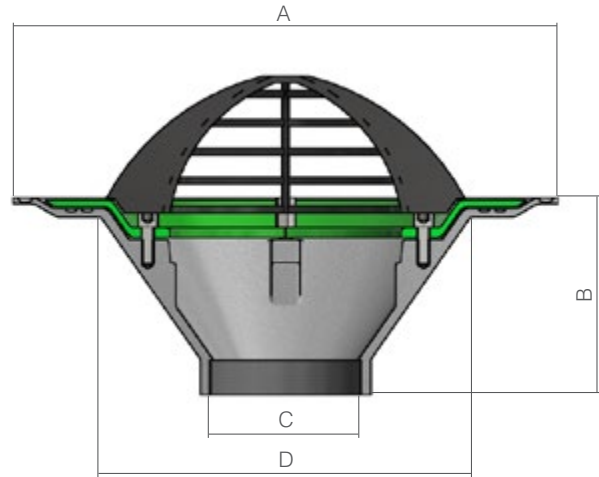
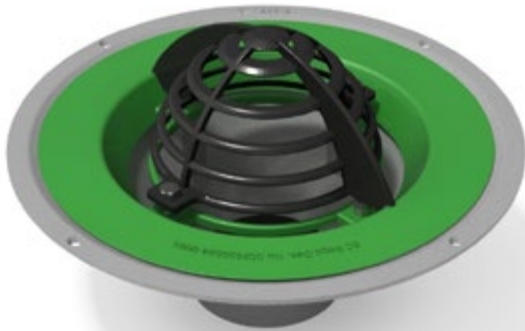
Our rainwater outlet maximum performance figures, in many cases, are restricted by the maximum allowed capacity of the connecting pipe system. If it is intended to link multiple roof outlets within a singular pipework run, the combined capacity of the outlets must not exceed the design capacity of the pipe system. Our sister company Marley Plumbing and Drainage can advise further on internal pipework capacities. Contact tel: 01622 858888.

Balcony outlet pipework

To reduce the risk of a balcony outlet becoming overwhelmed in a storm event, it is good practice to connect each balcony outlet separately into a continuous main rainwater pipe drop, as opposed to draining balconies from above onto lower. If a continuous main rainwater pipe drop is not an option, rainwater outlets and overflows need to be suitably sized to accept the total combined drainage from the above balconies at each level.

Roof Outlets

Dome grate roof outlet

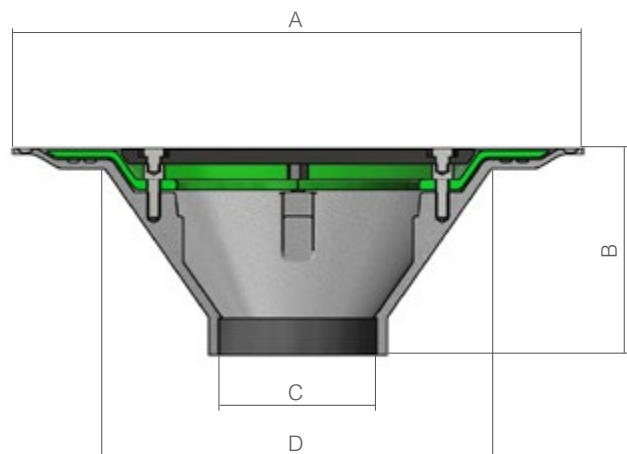


Primarily suited for use with: Warm and cold roof build-ups

Part Code	Pipe connection size (O.D)	A	B	C	D	Max. Flow rate (l/s)
AR82	82mmØ	377	111	82	255	5
AR110	110mmØ	377	136	110	255	10.7
AR160	160mmØ	377	111	160	255	19

Flow rates are measured at 35mm head of water for outlets up to 110mmØ and 45mm head of water for 160mmØ outlets, in accordance with BS EN 1253-2. Units are supplied with 500mm long threaded PVCu pipe connectors

Flat grate roof outlet

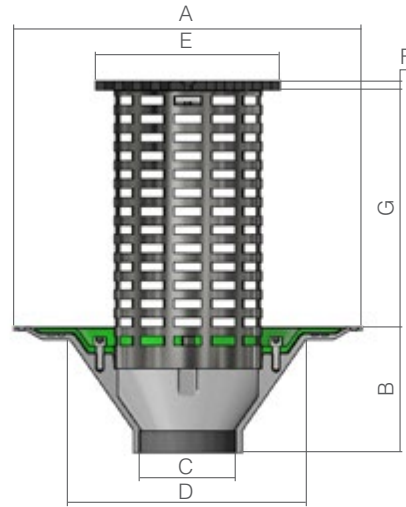


Primarily suited for use with: Warm roofs, terraces, walkways and cold roof build-ups.

Part Code	Pipe connection size (O.D)	A	B	C	D	Max. Flow rate (l/s)
AR82F	82mmØ	377	111	82	255	5
AR110F	110mmØ	377	136	110	255	10.7
AR160F	160mmØ	377	111	160	255	19

Flow rates are measured at 35mm head of water for outlets up to 110mmØ and 45mm head of water for 160mmØ outlets, in accordance with BS EN 1253-2. Units are supplied with 500mm long threaded PVCu pipe connectors

Extended grate roof outlet



Primarily suited for use with: Inverted roofs, green roofs, terraces, podiums, walkways and paved areas.

Part Code	Pipe connection size (O.D)	A	B	C	D	E	F	G Max. (cut down to requirement)	Max. Flow rate (l/s)
AR82TG	82mmØ	377	111	82	255	200	10	255	5
AR110TG	110mmØ	377	136	110	255	200	10	255	10.7
AR160TG	160mmØ	377	111	160	255	200	10	255	19

Flow rates are measured at 35mm head of water for outlets up to 110mmØ and 45mm head of water for 160mmØ outlets, in accordance with BS EN 1253-2. Units are supplied with 500mm long threaded PVCu pipe connectors

Blue roof outlet restrictor

A blue roof is designed to allow controlled attenuation of heavy rainfall during a storm event. The rainwater from the roof is temporarily stored and released at a controlled rate so as not to overwhelm sewers, waterways and rivers. The total allowable discharge rate, for a site being designed, should be agreed at planning stage.

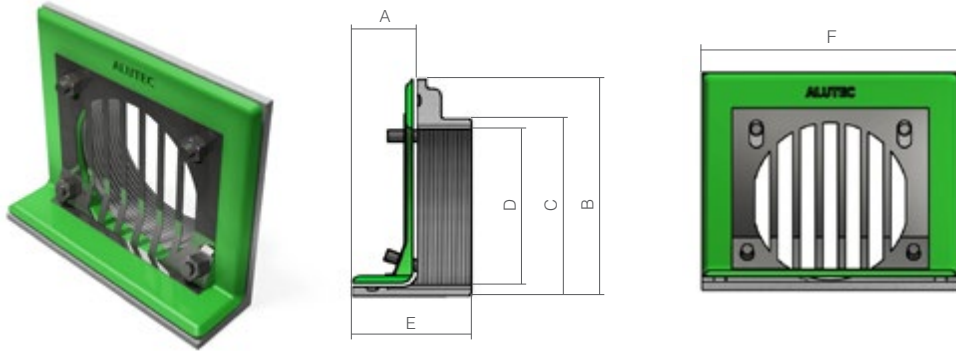
Can be utilised with extended grate outlet



Restricted rainwater runoff figures per outlet (litres per second)

Part Code	Holes visible	Water depth on roof					
		25mm	35mm	50mm	100mm	135mm	150mm
ARBR	2 holes	0.35 l/s	0.37 l/s	0.41 l/s	05 l/s	0.56 l/s	0.58 l/s
	4 holes	1.39 l/s	1.49 l/s	1.62 l/s	2.01 l/s	2.24 l/s	2.33 l/s
	6 holes	3.14 l/s	3.35 l/s	3.66 l/s	4.52 l/s	5.03 l/s	5.24 l/s
	8 holes	5.58 l/s	5.96 l/s	6.5 l/s	8.03 l/s	8.94 l/s	9.31 l/s

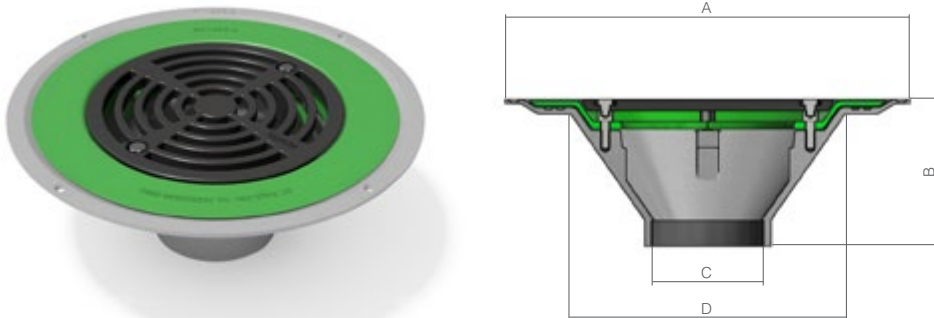
Parapet / Gully outlet



Primarily suited for use with: Parapet wall penetrations and internal gutters. Outlet can be set horizontal or vertical.

Part Code	Pipe connection size (O.D)	A	B	C	D	E	F	Max. Flow rate (l/s)
AP110	110mmØ	44	144	118	110	80	170	2.4*

*Flow rate measured at 35mm head of water, performance will dramatically increase if outlets are sumped. E.g. 100mm sump = 9.8 l/s
Units are supplied with 500mm long threaded PVCu pipe connectors



Primarily suited for use with: Asphalt build-ups

Part Code	Pipe connection size (O.D)	A	B	C	D	Max. Flow rate (l/s)
AC82	82mmØ	377	111	82	255	5
AC110	110mmØ	377	136	110	255	10.7
AC160	160mmØ	377	111	160	255	19

Load rating 1.5 tonnes, class K.

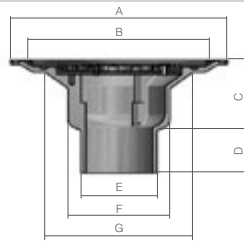
Threaded PVC connectors

Each roof outlet is supplied with the relevant sized threaded pipe connector. The pipe connectors are 500mm long and can be cut on site to suit requirement.

Overflow outlets

Details are available on request. Please contact Marley Alutec technical department on 01234 359438.

Flat grate balcony outlet

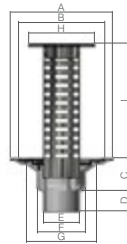


Primarily suited for use with: Uninsulated balconies/walkways and terraces.

Code	Pipe connection size (O.D)	A	B	C	D	E	F	G	Max. Flow rate (l/s)
ABO1	76, 72x72, 82 and 110mm	234	196	77	45	82	110	158	4.7

*Flow rate measured at 35mm head of water.

Terrace grate balcony outlet

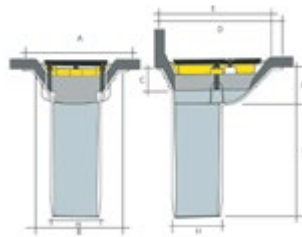


Primarily suited for use with: Inverted podiums, decked and paved balconies/walkways.

Code	Pipe connection size (O.D)	A	B	C	D	E	F	G	H	I	Max. Flow rate (l/s)
ABO1TG	76, 72x72, 82 and 110mm	234	196	77	45	82	110	158	150	260	4.7

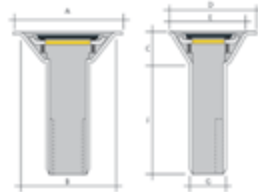
*Flow rate measured at 35mm head of water.

Balcony outlet



Code	Nominal size mm	Connection size mm	Load Class	A	B	C	D	E	F	G	H
DR360	75	82	K3	230	190	50	265	240	85	260	83
DR460	100	110	K3	230	190	50	265	240	85	260	110

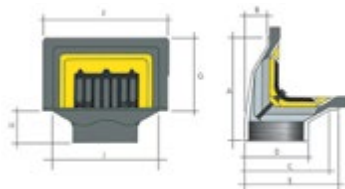
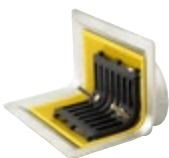
Shallow balcony outlet



Code	Nominal size mm	Connection size mm	Load Class	A	B	C	D	E	F	G
DR365	75	82	K3	215	172	55	172	152	220	83

Ideal for refurbishment projects

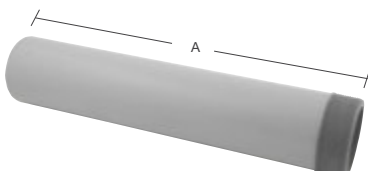
Two-way parapet outlet



Code	Nominal size mm	Connection size mm	A	B	C	D	E	F	G	H	J
DR450	100	110	213	50	170	130	193	255	148	70	217

Can be installed horizontally or vertically. For use with threaded adaptors; see outlet accessories section, page 9

Threaded adaptor



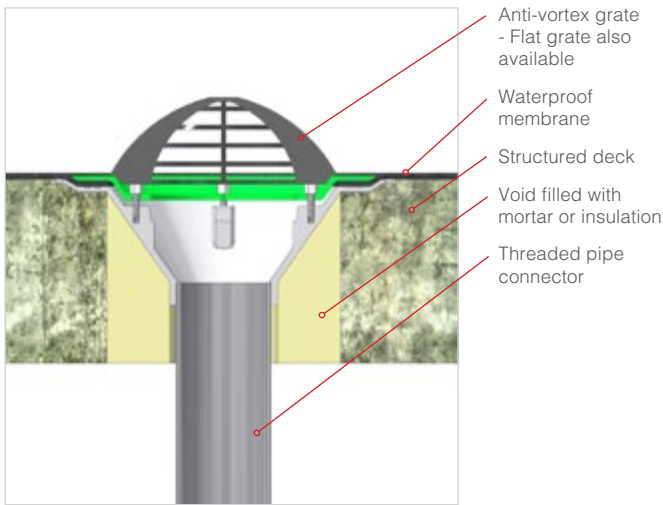
Code	To suit outlet nominal size mm	Connection size mm	A
DRA4	100	110	500

For use with threaded outlets to eliminate mechanical joints in concealed voids or concrete slabs. Suitable for connection to PVCu and cast iron

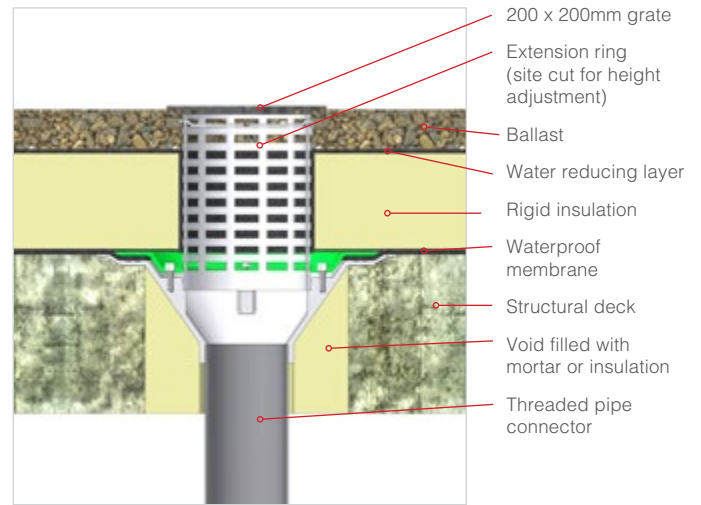
Connection to aluminium pipework

Each balcony outlet is supplied with an EPDM rubber adaptor that allows direct connection to 76mmØ and 72x72mm aluminium pipework.

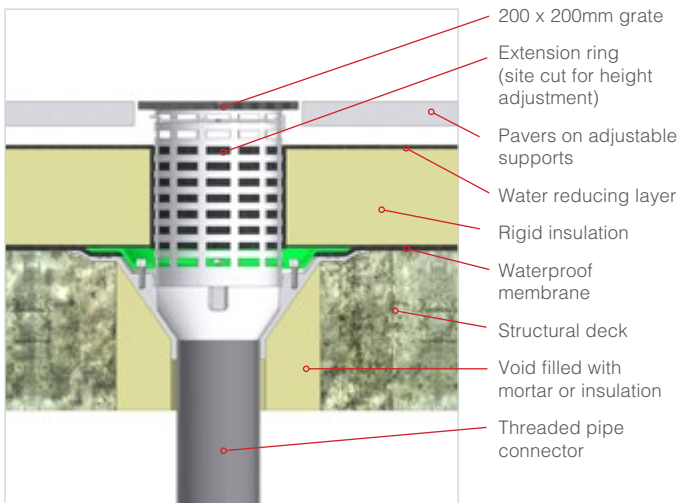
Cold roof



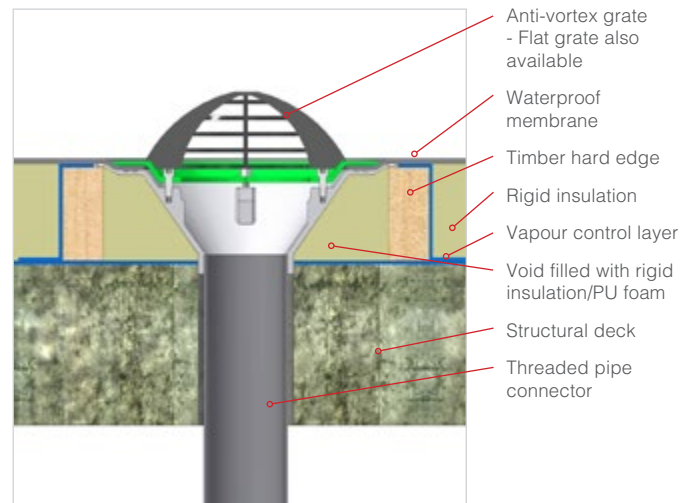
Inverted ballast roof



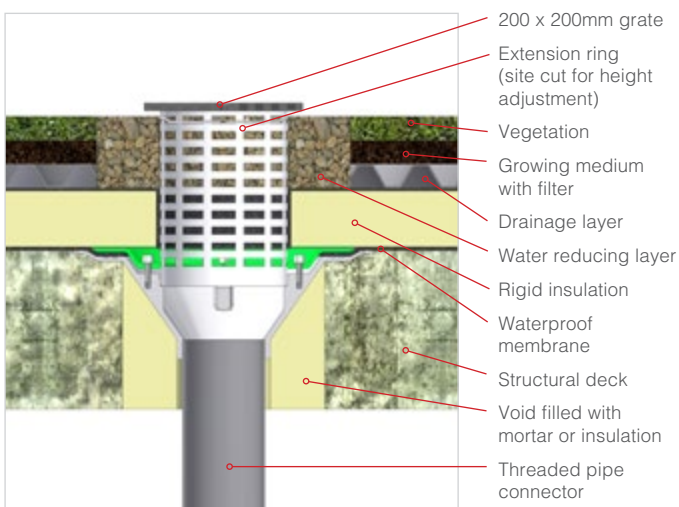
Inverted paved roof (Terrace)



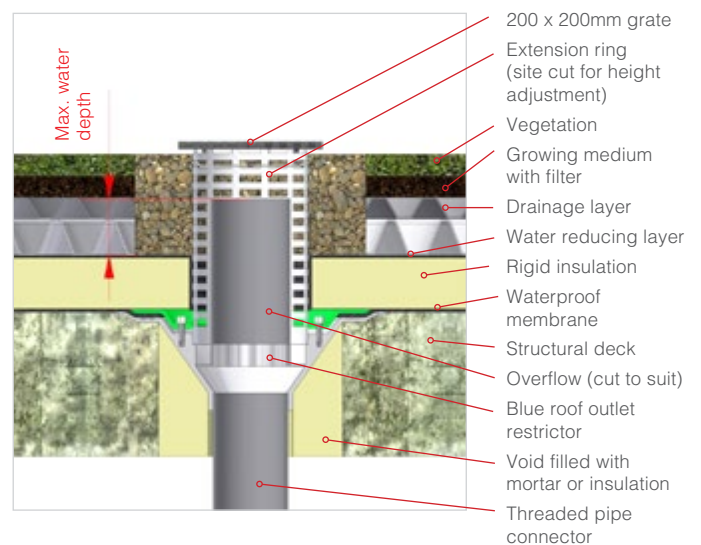
Warm roof



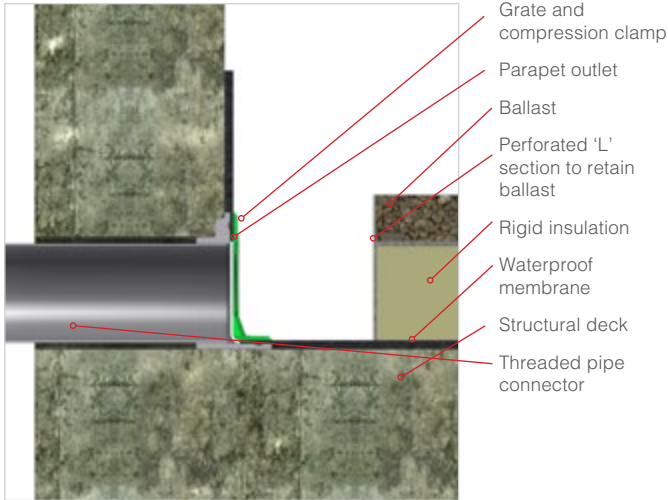
Green roof



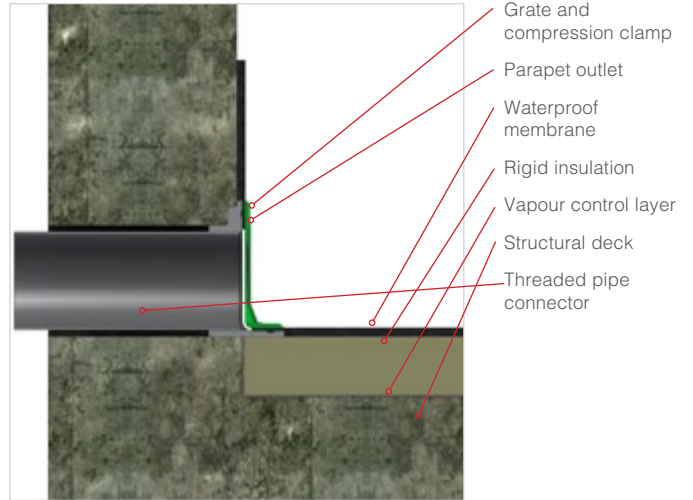
Blue Roof



Parapet - Inverted ballast roof



Parapet - Warm roof

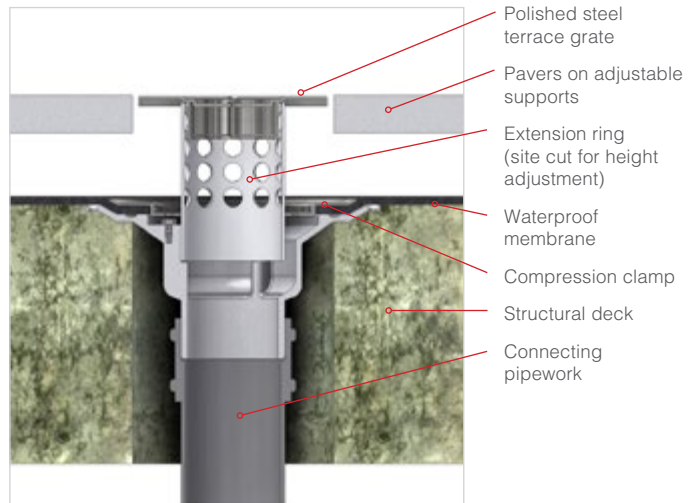


Typical balcony applications

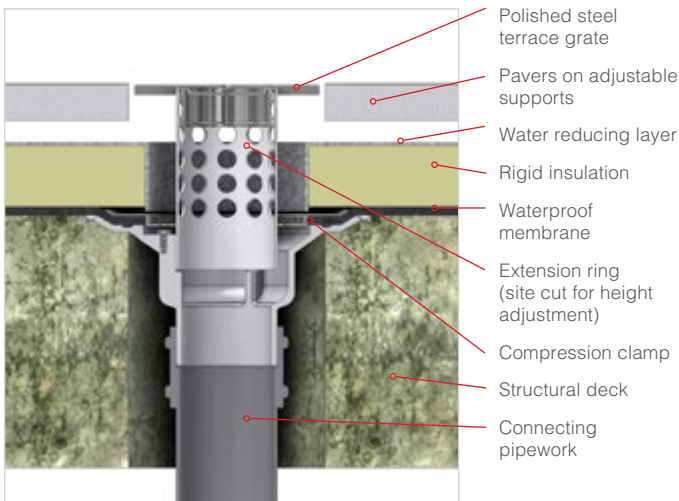
Uninsulated balcony



Paved / decking detail



Inverted podium





Product specification clauses

Alutec has created an easy to use online specification “generator.” Simply select your chosen product and you will receive a full specification with the applicable clauses. Please visit www.marleyalutec.co.uk.

R10 RAINWATER DRAINAGE SYSTEMS

2 To be read with Preliminaries/General conditions

365 ALUTEC ROOF OUTLETS

Manufacturer: Marley Alutec, Unit 1 (G-H), Viking Industrial Park, Hudson Road,

Elms Farm Industrial Estate, Bedford MK41 0LZ

Tel: 01234 359438, Fax: 01234 357199.

Email: enquiries@marleyalutec.co.uk

Reference: Alutec Aluminium Elite roof outlet

Type: Vertical Threaded

Product code: *****

Connection size: 100mm nominal, 110mm OD

Grate Type: Domed grate

Flow Performance: As stated in Alutec literature.

Type / grade: Marine grade Aluminium alloy to BSEN1559:1997,

BSEN 1676:1997 and BSEN 1706:1998

Accessories: Flat grate, terrace grate, extension ring, threaded adaptor 500mm long.

Functional life expectancy: 50 years



Product specification tool

This produces specification documents for a wide range of aluminium rainwater and eaves products.

These tools can be found at www.marleyalutec.co.uk/calculators



Online Calculators and Tools

To help designers and specifiers we have produced a set of online tools and calculators.

Alutec Eaves Gutter System Rainwater Calculator
10 January 2019

Project Address: 17400000 - Riverside Drive

Code	Description	Quantity	Price	Total
17400000	17400000 - Riverside Drive	1	10000	10000

Estimate Number
ET 225 WEB
10 January 2019

Project Address: 17400000 - Riverside Drive

Code	Description	Quantity	Price	Total
17400000	17400000 - Riverside Drive	1	10000	10000

NBS Specification Document

Project: 17400000

Design Criteria: 1

Roof Catchment Area: 1000

Roof Slope: 0.01

Roof Area: 1000

Alutec flat roof rainwater drainage Calculator
10 January 2019

Project: 17400000

Design Criteria: 1

Code	Description	Quantity	Price	Total
17400000	17400000 - Riverside Drive	1	10000	10000

Gutter System Rainwater Calculator

Web Estimates

NBS Specification Tool

Flat Roof Rainwater Drainage Calculator

Rainwater design calculators

Our online tools have been designed with simplicity in mind removing the need for any prior specialist industry knowledge. The tools guide the user step by step allowing fast and simple roof drainage design whilst ensuring full compliance with BS EN12056-3 rainwater drainage design standard. Upon completion, a full set of rainwater drainage design calculations are provided confirming the suitability of products.

Estimating tool

This produces instant list value estimates for all your Marley Alutec product requirements. The estimate produced will be calculated at our list prices – merchant discounts will apply to all of the results.

Product Specification tool

This produces specification documents for a wide range of aluminium rainwater and eaves products.

These tools can be found at www.marleyalutec.co.uk/calculators

Technical support

Alutec's Technical Services team has many years' experience in helping specifiers with correct systems choice, roof drainage design, flow rate calculations and installation advice.

Our Technical Team can be contacted on **01234 359438**.



Contacts

Estimate requests and price enquiries: email: projects@marleyalutec.co.uk Tel: **01234 359438**.

Order placement: orders@marleyalutec.co.uk Tel: **01234 359438** Fax: **01234 357199** (Orders only accepted by email, post or fax)

Order progression: Tel: **01234 359438**.

Please state colour when ordering.



Orders received by 3.30pm on normal business days will be processed on the day of receipt.

Orders received after 3.30pm will be processed the next business day.

Please note that the lead time/due date for the order, will be calculated from the date of processing.

Technical enquiries: technical@marleyalutec.co.uk Tel: **01234 359438**.

Free estimating tool available at www.marleyalutec.co.uk/calculators



Head office

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