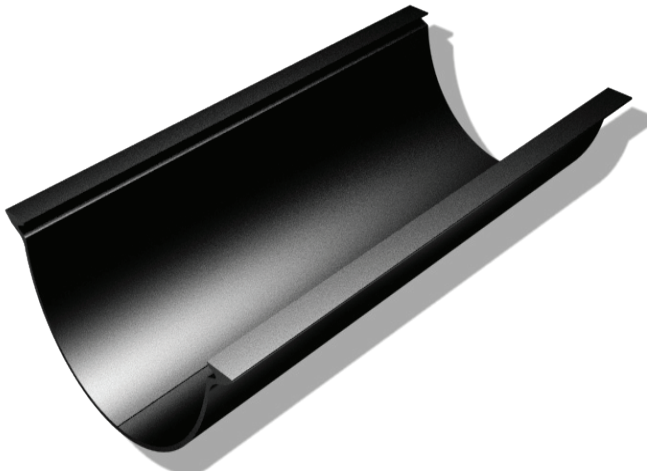


TECHNICAL PRODUCT GUIDE 2019



Extruded Aluminium Gutters



Beaded Half Round



Deepflow Half Round



Vintage Ogee



Modern Ogee

	100mm	114mm	125mm	150mm	200mm
Beaded Half Round Snap-fit		✓	✓	✓	
Deepflow Half Round			✓		
Vintage Ogee Snap-fit	✓		✓	✓	
Modern Ogee					✓

Extruded aluminium gutters are a fantastic option for new build and refurbishment applications due to their smooth lines, clean appearance and robust properties.

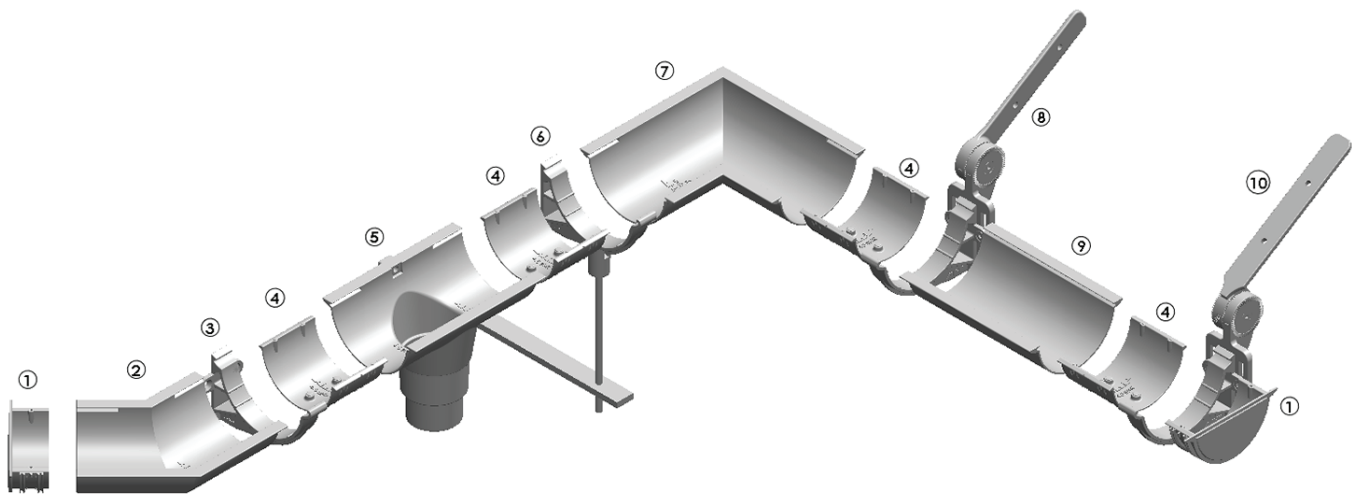
With a choice of profile options and providing ‘fit and forget’ peace of mind, extruded systems have become a real sustainable choice to both homeowner and specifier.

- Made from aluminium alloy 6063, T6 to BS1474:1972.
- 100% recyclable.
- Lightweight and strong.
- Durable and non-corrosive.
- Variety of profiles available.
- Radius and special fittings can be provided.
- Mill finish or powder coated to your choice of RAL/BS colour.
- Full fitting instructions included with every delivery.
- Expected to last in excess of 60 years, with minimal maintenance.



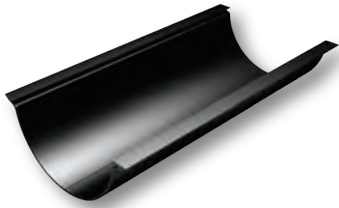
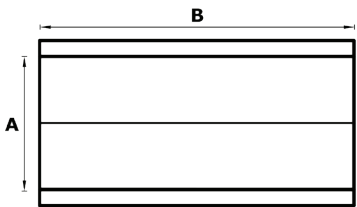


System Overview



Number	Item	Number	Item
1	Universal Stopend	6	Rise and Fall Bracket
2	135° Universal Angle	7	90° Universal Angle
3	Fascia Bracket	8	Side Fix Rafter Bracket
4	Union Connector	9	Gutter Length
5	Running Outlet	10	Top Fix Rafter Bracket

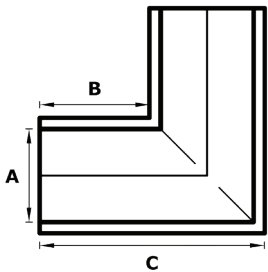
Gutter Lengths



GUTTER SIZE A	B	DEPTH	PRODUCT CODE
114	3000	59	4.5BHRG3
114	2500	59	4.5BHRG2.5
114	2000	59	4.5BHRG2
114	1000	59	4.5BHRG1
114	500	59	4.5BHRG0.5
125	3000	65	5BHRG3
125	2500	65	5BHRG2.5
125	2000	65	5BHRG2
125	1000	65	5BHRG1
125	500	65	5BHRG0.5
150	3000	79	6BHRG3
150	2500	79	6BHRG2.5
150	2000	79	6BHRG2
150	1000	79	6BHRG1
150	500	79	6BHRG0.5

Faceted Radius Gutters can be made to a template. 1m max template required, for more information contact our Technical Team.

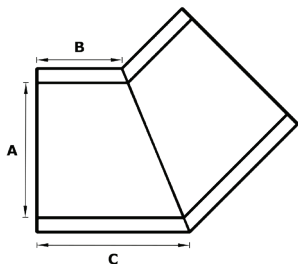
90° Universal Angle



GUTTER SIZE A	B	C	PRODUCT CODE
114	75	219	4.5BHRA90
125	75	232	5BHRA90
150	75	258	6BHRA90

Non standard angles available on request.

135° Universal Angle

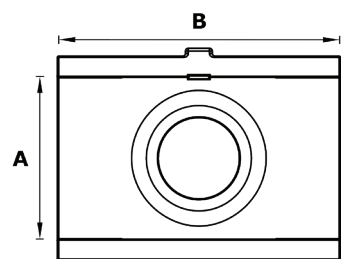


GUTTER SIZE A	B	C	PRODUCT CODE
114	75	135	4.5BHRA135
125	75	140	5BHRA135
150	75	151	6BHRA135

Non standard angles available on request.

All dimensions shown in mm unless otherwise stated.

Running Outlet



Standard

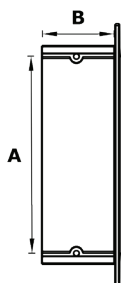


Tapered



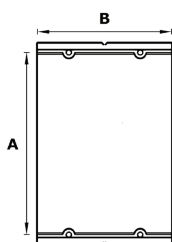
GUTTER SIZE A	OUTLET SIZE	OUTLET TYPE	B	PRODUCT CODE
114	Ø63	Tapered	200	4.5BHRO2R
114	Ø76	Tapered	200	4.5BHRO3R
114	63 sq	Standard	200	4.5BHRO2S
114	76 sq	Standard	200	4.5BHRO3S
114	101 x 76	Standard	200	4.5BHRO43
125	Ø63	Tapered	220	5BHRO2R
125	Ø76	Tapered	220	5BHRO3R
125	Ø101	Standard	220	5BHRO4R
125	63 sq	Standard	220	5BHRO2S
125	76 sq	Standard	220	5BHRO3S
125	101 x 76	Standard	220	5BHRO43
125	101 Sq	Standard	220	5BHRO4S
150	Ø63	Standard	260	6BHRO2R
150	Ø76	Standard	260	6BHRO3R
150	Ø101	Standard	260	6BHRO4R
150	63 sq	Standard	260	6BHRO2S
150	76 sq	Standard	260	6BHRO3S
150	101 x 76	Standard	260	6BHRO43
150	101 Sq	Standard	260	6BHRO4S

Universal Internal Stopend



GUTTER SIZE A	B	PRODUCT CODE
114	40	4.5BHRSE
125	40	5BHRSE
150	40	6BHRSE

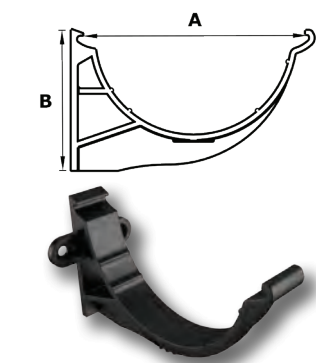
Union Connector



GUTTER SIZE A	B	PRODUCT CODE
114	80	4.5BHRUC
125	80	5BHRUC
150	80	6BHRUC

All dimensions shown in mm unless otherwise stated.

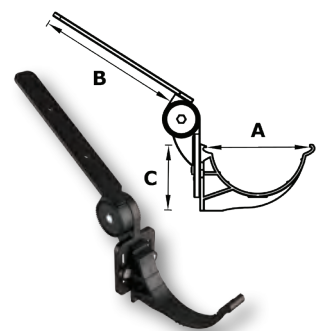
Fascia Bracket



GUTTER SIZE A	B	PRODUCT CODE
114	90	4.5BHRBF
125	100	5BHRBF
150	110	6BHRBF

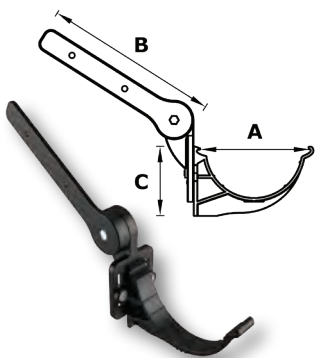
Width of fascia bracket = 25mm

Top Fix Rafter Bracket



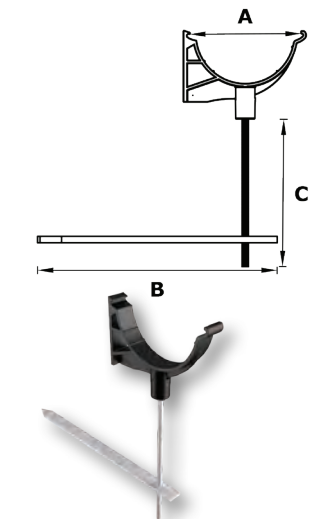
GUTTER SIZE A	B	C	PRODUCT CODE
114	195	90	4.5BHRBRT
125	195	100	5BHRBRT
150	195	110	6BHRBRT

Side Fix Rafter Bracket



GUTTER SIZE A	B	C	PRODUCT CODE
114	225	90	4.5BHRBRS
125	225	100	5BHRBRS
150	225	110	6BHRBRS

Rise and Fall Bracket

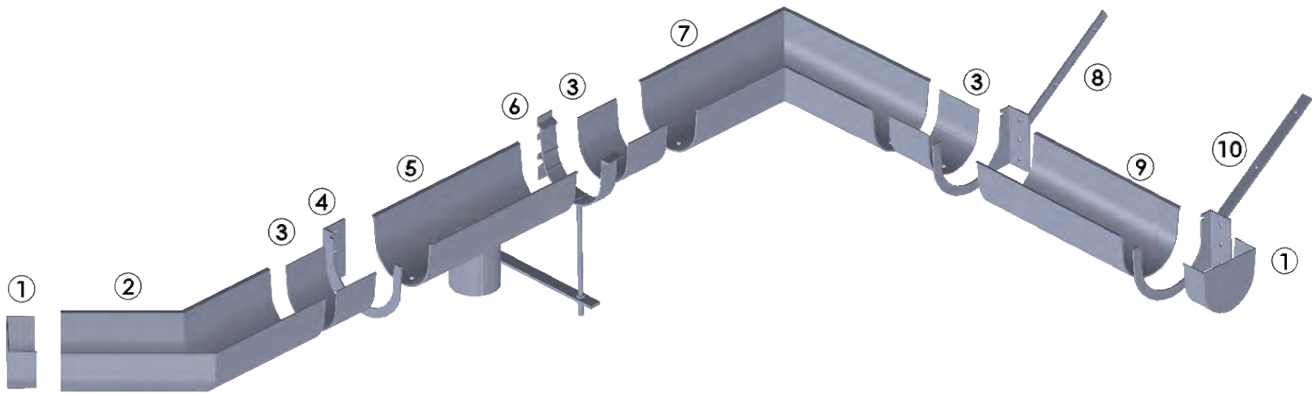


GUTTER SIZE A	B	C	PRODUCT CODE
114	330	190	4.5BHRBRF
125	330	190	5BHRBRF
150	330	190	6BHRBRF

All dimensions shown in mm unless otherwise stated.

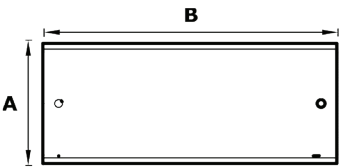


System Overview



Number	Item	Number	Item
1	Universal Stopend	6	Rise and Fall Bracket
2	135° Universal Angle	7	90° Universal Angle
3	Union Connector	8	Side Fix Rafter Bracket
4	Fascia Bracket	9	Gutter Length
5	Running Outlet	10	Top Fix Rafter Bracket

Gutter Lengths

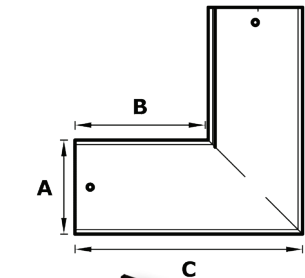


GUTTER SIZE A	B	DEPTH	PRODUCT CODE
125	3000	100	54DHRG3
125	2500	100	54DHRG2.5
125	2000	100	54DHRG2
125	1000	100	54DHRG1
125	500	100	54DHRG0.5

Faceted radius gutter available on request.

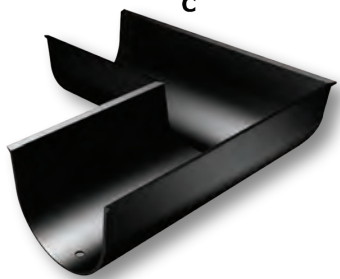


90° Universal Angle

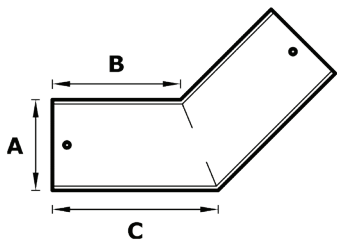


GUTTER SIZE A	B	C	PRODUCT CODE
125	150	275	54DHRA90

Non standard angles available on request.



135° Universal Angle



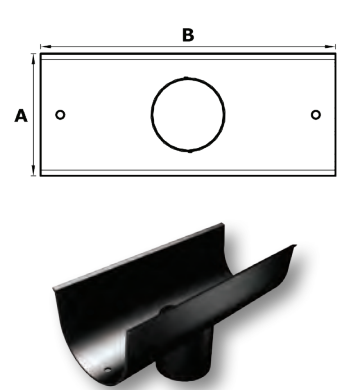
GUTTER SIZE A	B	C	PRODUCT CODE
125	150	203	54DHRA135

Non standard angles available on request.



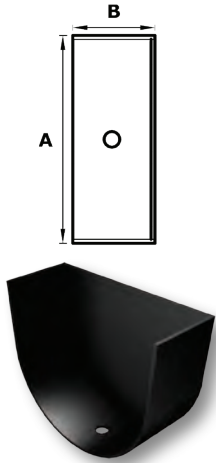
All dimensions shown in mm unless otherwise stated.

Running Outlet



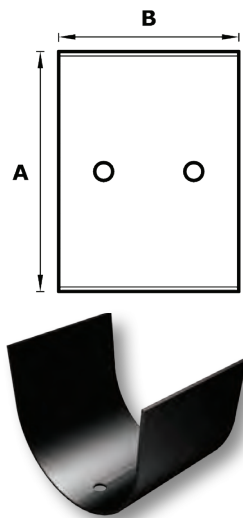
GUTTER SIZE A	OUTLET SIZE	B	PRODUCT CODE
125	Ø63	300	54DHRO2R
125	Ø76	300	54DHRO3R
125	Ø101	300	54DHRO4R
125	63 sq	300	54DHRO2S
125	76 sq	300	54DHRO3S
125	101 x 76	300	54DHRO43
125	101 sq	300	54DHRO4S

Universal Stopend



GUTTER SIZE A	B	PRODUCT CODE
125	40	54DHRSE

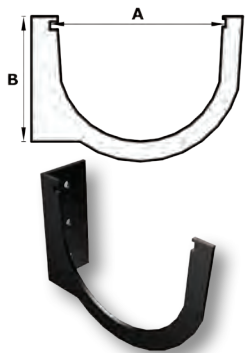
Union Connector



GUTTER SIZE A	B	PRODUCT CODE
125	80	54DHRUC

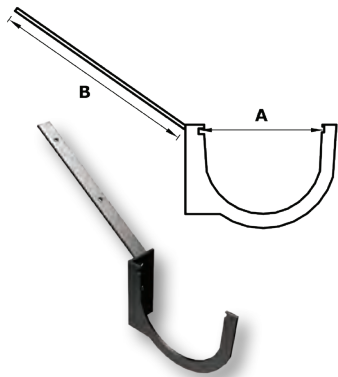
All dimensions shown in mm unless otherwise stated.

Fascia Bracket



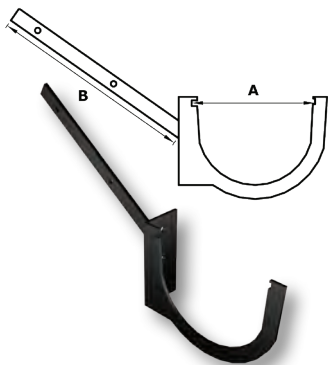
GUTTER SIZE A	B	PRODUCT CODE
125	100	54DHRBF

Top Fix Rafter Bracket



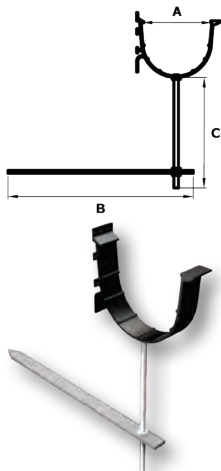
GUTTER SIZE A	B	PRODUCT CODE
125	230	54DHRBRT

Side Fix Rafter Bracket



GUTTER SIZE A	B	PRODUCT CODE
125	230	54DHRBRS

Rise and Fall Bracket

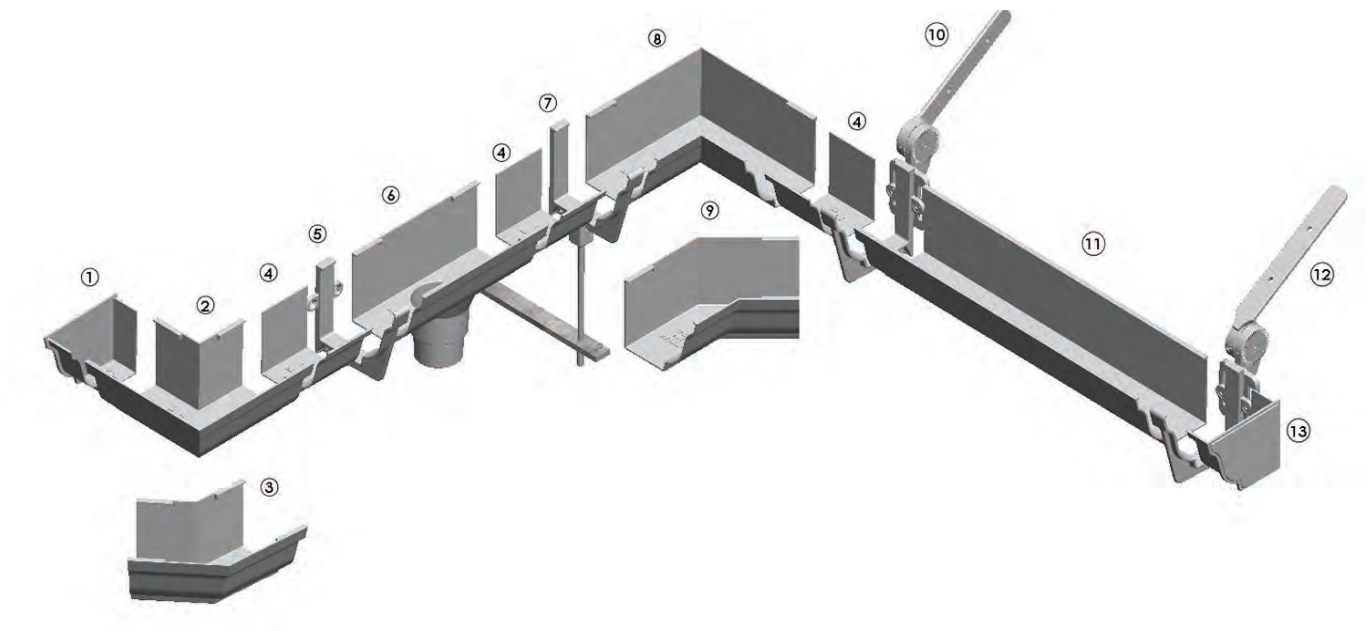


GUTTER SIZE A	B	C	PRODUCT CODE
125	230	200	54DHRBRF

All dimensions shown in mm unless otherwise stated.

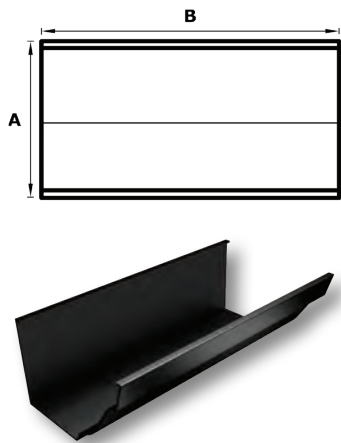


System Overview



Number	Item	number	Item
1	Left Hand Stopend	8	90° Internal Angle
2	90° External Angle	9	135° Internal Angle
3	135° External Angle	10	Side Fix Rafter Bracket
4	Union Connector	11	Gutter Length
5	Fascia Bracket	12	Top Fix Rafter Bracket
6	Running Outlet	13	Right Hand Stopend
7	Rise and Fall Bracket		

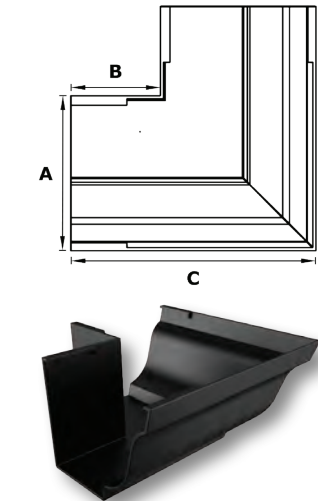
Gutter Lengths



GUTTER SIZE A (W X D)	B	PRODUCT CODE
100 x 75	3000	43VOG3
100 x 75	2500	43VOG2.5
100 x 75	2000	43VOG2
100 x 75	1000	43VOG1
100 x 75	500	43VOG0.5
125 x 100	3000	54VOG3
125 x 100	2500	54VOG2.5
125 x 100	2000	54VOG2
125 x 100	1000	54VOG1
125 x 100	500	54VOG0.5
150 x 100	3000	64VOG3
150 x 100	2500	64VOG2.5
150 x 100	2000	64VOG2
150 x 100	1000	64VOG1
150 x 100	500	64VOG0.5

Faceted radius gutter available on request.

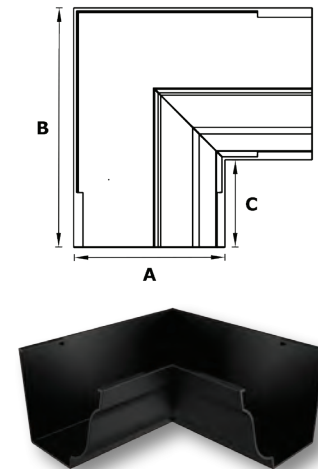
90° External Angle



GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
100 x 75	75	180	43VOAX90
125 x 100	75	205	54VOAX90
150 x 100	75	234	64VOAX90

Non standard angles available on request.

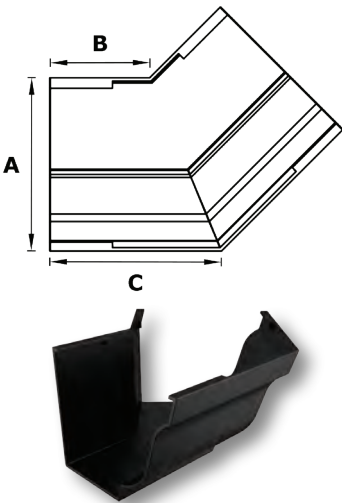
90° Internal Angle



GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
100 x 75	180	75	43VOAI90
125 x 100	205	75	54VOAI90
150 x 100	234	75	64VOAI90

Non standard angles available on request.

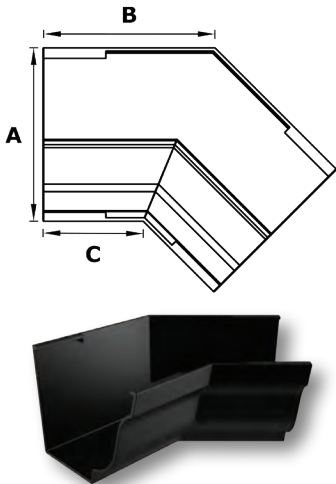
135° External Angle



GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
100 x 75	75	118	43VOAX135
125 x 100	75	129	54VOAX135
150 x 100	75	141	64VOAX135

Non standard angles available on request.

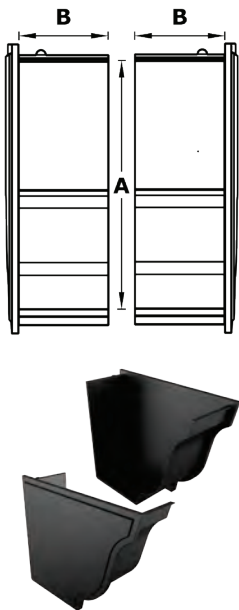
135° Internal Angle



GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
100 x 75	75	118	43VOAI135
125 x 100	75	129	54VOAI135
150 x 100	75	141	64VOAI135

Non standard angles available on request.

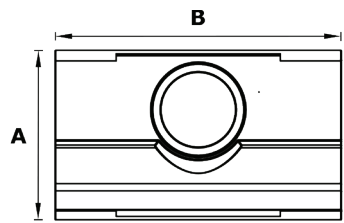
Stopends



GUTTER SIZE A (W X D)	B	PRODUCT CODE LH	PRODUCT CODE RH
100 x 75	40	43VOSEL	43VOSER
125 x 100	40	54VOSEL	54VOSER
150 x 100	40	64VOSEL	64VOSER

All dimensions shown in mm unless otherwise stated.

Running Outlet



Standard

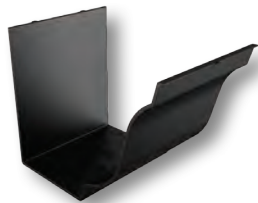
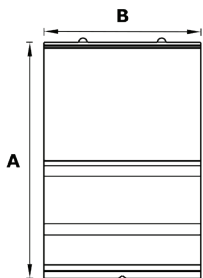


Tapered



GUTTER SIZE A (W X D)	OUTLET SIZE	OUTLET TYPE	B	PRODUCT CODE
100 x 75	Ø63	Standard	200	43VOO2R
100 x 75	Ø76	Standard	200	43VOO3R
100 x 75	63 sq	Standard	200	43VOO2S
100 x 75	76 sq	Standard	200	43VOO3S
100 x 75	101 x 76	Standard	200	43VOO43
125 x 100	Ø63	Tapered	220	54VOO2R
125 x 100	Ø76	Tapered	220	54VOO3R
125 x 100	Ø101	Standard	220	54VOO4R
125 x 100	63 sq	Standard	220	54VOO2S
125 x 100	76 sq	Standard	220	54VOO3S
125 x 100	101 x 76	Standard	220	54VOO43
125 x 100	101 Sq	Standard	220	54VOO4S
150 x 100	Ø63	Standard	220	64VOO2R
150 x 100	Ø76	Tapered	220	64VOO3R
150 x 100	Ø101	Tapered	220	64VOO4R
150 x 100	63 sq	Standard	220	64VOO2S
150 x 100	76 sq	Standard	220	64VOO3S
150 x 100	101 x 76	Standard	220	64VOO43
150 x 100	101 Sq	Standard	220	64VOO4S

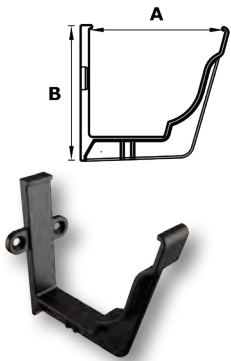
Union Connector



GUTTER SIZE A (W X D)	B	PRODUCT CODE
100 x 75	80	43VOUC
125 x 100	80	54VOUC
150 x 100	80	64VOUC

All dimensions shown in mm unless otherwise stated.

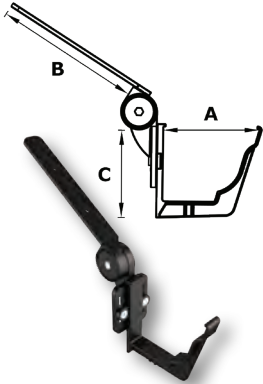
Fascia Bracket



GUTTER SIZE A (W X D)	B	PRODUCT CODE
100 x 75	108	43VOBF
125 x 100	132	54VOBF
150 x 100	130	64VOBF

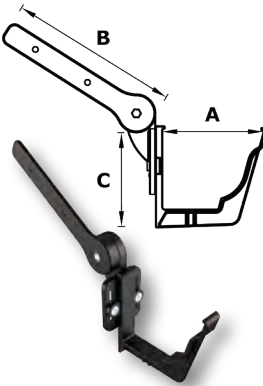
Width of fascia bracket = 25 mm

Top Fix Rafter Bracket



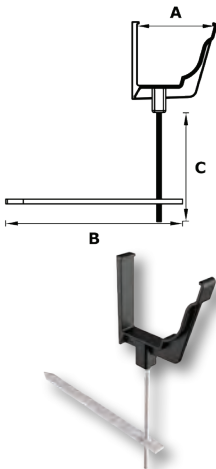
GUTTER SIZE A (W X D)	B	PRODUCT CODE
100 x 75	195	43VOBRT
125 x 100	195	54VOBRT
150 x 100	195	64VOBRT

Side Fix Rafter Bracket



GUTTER SIZE A (W X D)	B	PRODUCT CODE
100 x 75	225	43VOBRS
125 x 100	225	54VOBRS
150 x 100	225	64VOBRS

Rise and Fall Bracket

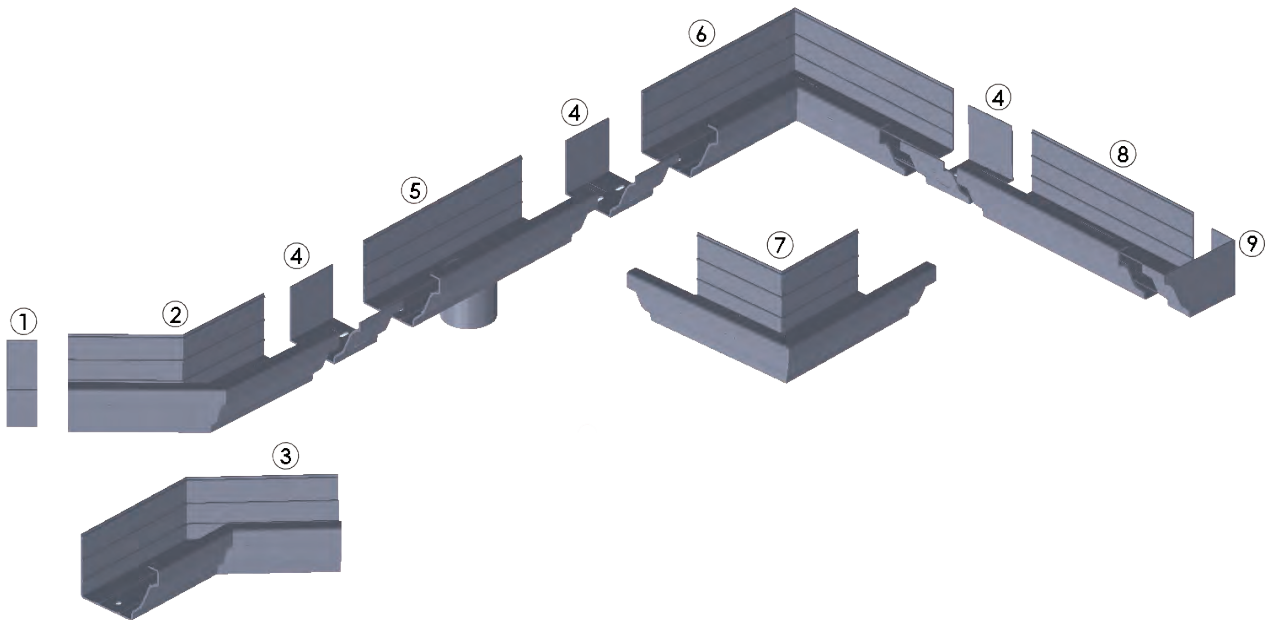


GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
100 x 75	330	190	43VOBRF
125 x 100	330	190	54VOBRF
150 x 100	330	190	64VOBRF

All dimensions shown in mm unless otherwise stated.

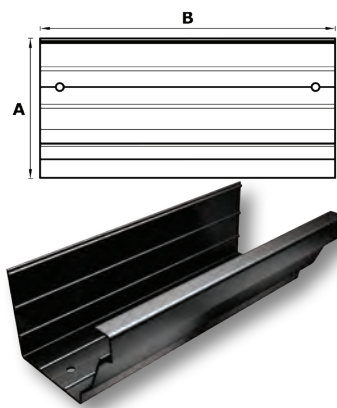


System Overview



Number	Item	Number	Item
1	Left Hand Stopend	6	90° Internal Angle
2	135° External Angle	7	90° External Angle
3	135° Internal Angle	8	Gutter Length
4	Union Connector	9	Right Hand Stopend
5	Running Outlet		

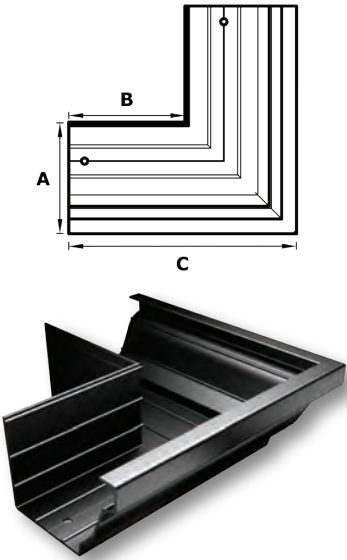
Gutter Lengths



GUTTER SIZE A (W X D)	B	PRODUCT CODE
200 x 150	3000	86MOG3
200 x 150	2500	86MOG2.5
200 x 150	2000	86MOG2
200 x 150	1000	86MOG1
200 x 150	500	86MOG0.5

Faceted radius gutter available on request.

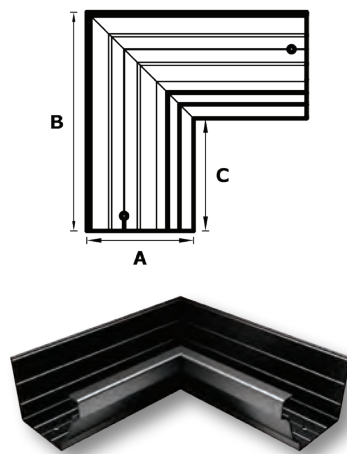
90° External Angle



GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
200 x 150	150	350	86MOAX90

Non standard angles available on request.

90° Internal Angle

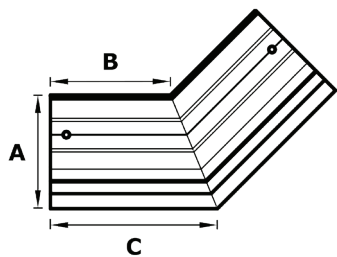


GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
200 x 150	350	150	86MOAI90

Non standard angles available on request.

All dimensions shown in mm unless otherwise stated.

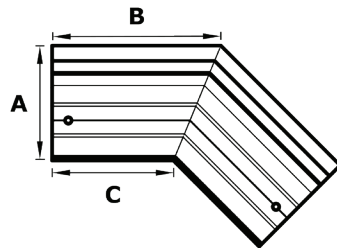
135° External Angle



GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
200 x 150	150	233	86MOAX135

Non standard angles available on request.

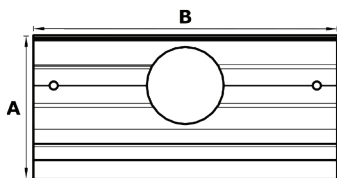
135° Internal Angle



GUTTER SIZE A (W X D)	B	C	PRODUCT CODE
200 x 150	233	150	86MOAI135

Non standard angles available on request.

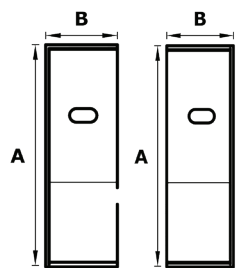
Running Outlet



GUTTER SIZE A (W X D)	OUTLET SIZE	B	PRODUCT CODE
200 x 150	Ø63	300	86MOO2R
200 x 150	Ø76	300	86MOO3R
200 x 150	Ø101	300	86MOO4R
200 x 150	63 sq	300	86MOO2S
200 x 150	76 sq	300	86MOO3S
200 x 150	101 x 76	300	86MOO43
200 x 150	101 Sq	300	86MOO4S

All dimensions shown in mm unless otherwise stated.

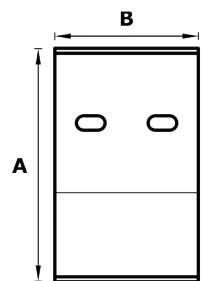
Stopends



GUTTER SIZE A (W X D)	B	PRODUCT CODE LH	PRODUCT CODE RH
200 x 150	40	86MOSEL	86MOSER



Union Connector



GUTTER SIZE A (W X D)	B	PRODUCT CODE
200 x 150	80	86MOUC



Looking for Cast Iron?

We have a full range of Gutters, Downpipes and Hoppers.



All dimensions shown in mm unless otherwise stated.

BEFORE YOU START

General Site Working

BS 8000 Workmanship on building sites, Parts 13 through to 16 with respect to above ground drainage and sanitaryware appliances are relevant in general terms.

Handling and Storage

Gutters, downpipes and fittings, particularly with polyester powder coat finish should be handled with care and preferably stored under cover on racks to prevent scratching. Whilst not known to pose any health hazard, it is recommended that protective gloves be worn when handling mill finish aluminium.

All lengths are supplied in a protective polythene wrapping with components similarly wrapped and stored in cardboard boxes. If painted product is to be stored outside, cover with tarpaulin to protect against rainfall and direct sunlight as if water gets trapped inside the protective covering and is exposed to warm sunlight then it may leave permanent watermarks on the paint finish. Mill finish items should be stored under cover to avoid uneven oxidization prior to being fitted.

Cutting and Drilling

Gutter sections may be cut and drilled on site using standard metalworking tools, however the use of angle grinders is not recommended. Where gutters or fittings are powder coated, then cut edges should be de-burred and then repainted with touch-up paint (available from ARP).

Gutter Position

Gutters may be laid level or to a fall of 1:600. Care must be taken to ensure the gutters are not laid too low so rainfall overshoots the gutter, or too high so that damage could be caused by sliding snow. Although at the discretion of the installer and dependant upon local climatic conditions and roof slope/finish, setting out with the front edge of the fascia bracket in line with the pitch of the roof (use straight edge) is a recommended method.

Gutter Position

The current recommendations from the Metal Gutter Manufacturers Association (MGMA) is to position gutters as Fig 1.

Fig 1 is more resistant to sliding snow than Fig 2.

There are certain conditions where a Fig 1 installation might allow water to over shoot the gutter or high wind conditions may allow water to blow back behind the gutter.

Fig 1 is the preferred option for the majority of the UK, but the decision should be made based on site conditions. We can provide more detailed advice if required.

Materials Checklist

- Spirit level/straight edge ☐
- Suitable screwdriver/attachment ☐
- Sealant caulking gun ☐
- Pencil or chalk ☐
- String or laser line ☐
- Hacksaw/electric jigsaw/chopsaw ☐
- Tape measure ☐
- Small wrench ☐

Jointing

Any use of sealant must not be carried out in wet weather or in temperatures below 5°C or above 50°C. All Joint surfaces must be perfectly clean and dry. Only a low modulus sealant must be used to prevent early failure. Ensure that the gutter joint sockets/spigots are correctly aligned with each other to ensure free thermal movement (3-4mm) within the gutter joint.

Fixing

It is important that all fixings are suitable for both the substrate and the load. They must therefore be of the appropriate size and of a compatible material to ensure no electrolytic corrosion occurs. ARP recommends that stainless steel (preferably austenitic) screws must be used to fix gutters, whether direct, fascia or rafter bracket fixed.

The below table shows the system and bracket options available.

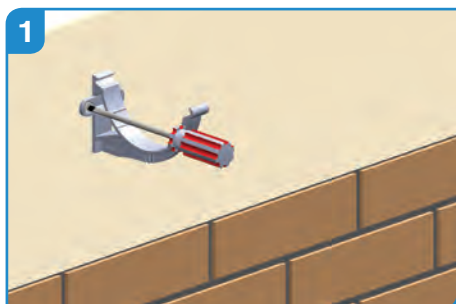
	Fascia Brackets	Direct Fix	Rafter Brackets	Rise & Fall Brackets
Beaded Half Round	Y	N	Y	Y
Deepflow Half Round	Y	N	Y	Y
Vintage Ogee Snap-fit	Y	Y	Y	Y
Modern Ogee	N	Y	N	N



GUTTER FIXING

We advise that you ensure the fixing background (e.g fascia board) is securely fixed, level and able to support the weight of the gutter at full capacity and that the roof overhang is correct – see gutter position.

Buildings without fascias may need a different type of bracketry. ARP offer a range of brackets to suit most applications. ARP offer side and top fix rafter arms as well as rise and fall brackets. The latter do not meet current BS/EN load requirements so advice should be sort on the parameter of their use.



Start by deciding whether to fit the gutter level or with a fall to 1:600. Fit a bracket at each end of a run. Position brackets correctly for an angle or stopend.

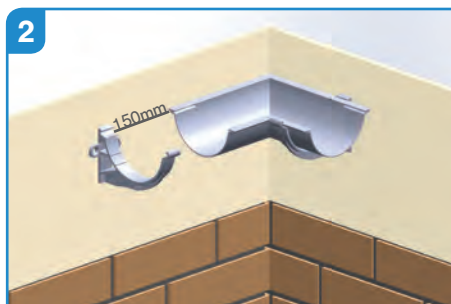
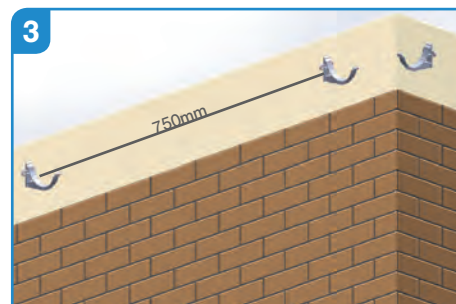


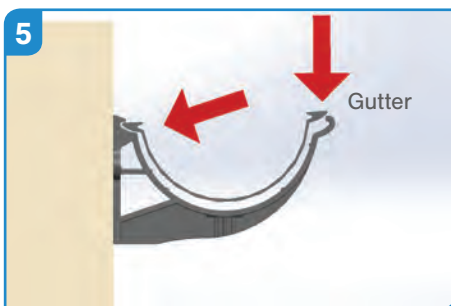
Image 2 shows the bracket positioning for the angle and bracket to take the gutter length.



We recommend fixing brackets every 750mm and using an additional bracket for each outlet or angle. Ideally using a string line or laser level between the two brackets, set out intermediate brackets at maximum centres of 750mm.

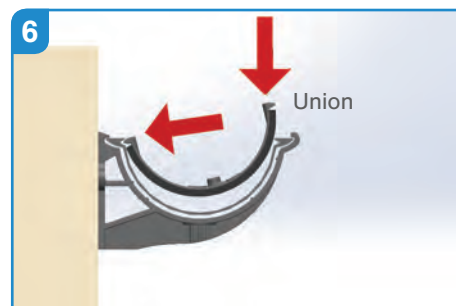


With the use of a plumb or laser line, position outlets over gullies and support with at least one bracket. Also include a bracket per angle (internal or external).



When fitting outlets and angles tuck the rear face of the gutter underneath the roof finish. Locate the gutter into the fascia bracket and then clip the front edge down into position.

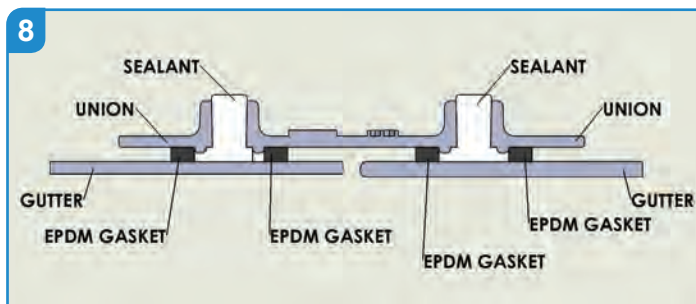
After fitting outlets and angles, proceed with fitting the gutter lengths using the same method.



Ensure that all fixing surfaces are clean and dry. Placing the union into the groove in the rear face of the gutter and clip down into place on the front edge.



Trim 4-5 mm off top of nozzle so it fits snugly into the large holes in the base of the union, inject the special* low modulus sealant supplied into one of the large holes in the bottom of the union until the sealant appears at both of the smaller holes at the rim of the union. Repeat the action on the other large hole. (*Sealant only available from ARP).



Ensure you apply the sealant gently to ensure the void is fully filled.

Clean off any excess sealant and then use the same process for every joint until the work is completed.

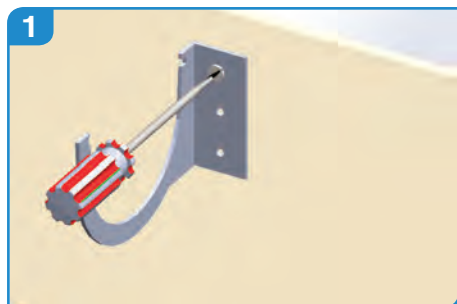


Any cut lengths should be de-burred and touched up with touch-up paint supplied prior to installation. For more information or further assistance, please contact us.

GUTTER FIXING

We advise that you ensure the fixing background (e.g fascia board) is securely fixed, level and able to support the weight of the gutter at full capacity and that the roof overhang is correct – see gutter position.

Sentinel Deepflow guttering is fitted using fascia brackets. Buildings without fascias may need a different type of bracketry. ARP offer a range of brackets to suit most applications. ARP offer side and top fix rafter arms as well as rise and fall brackets. The latter do not meet current BS/EN load requirements so advice should be sort on the parameter of their use.



Start by deciding whether to fit the gutter level or with a fall to 1:600. Fit a bracket at each end of a run. Position brackets correctly for an angle or stopend.

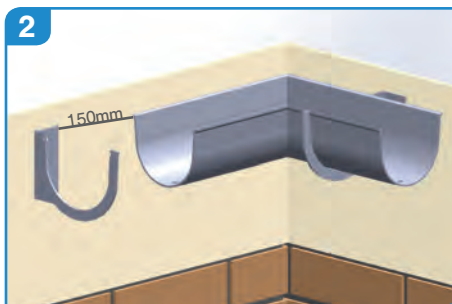
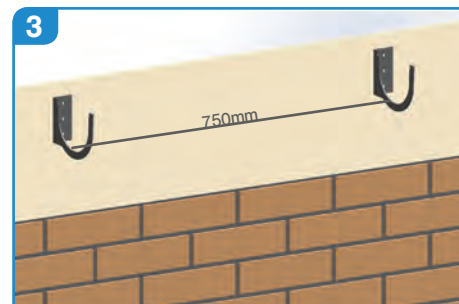


Image 2 shows the bracket positioning for the angle and bracket to take the gutter length.

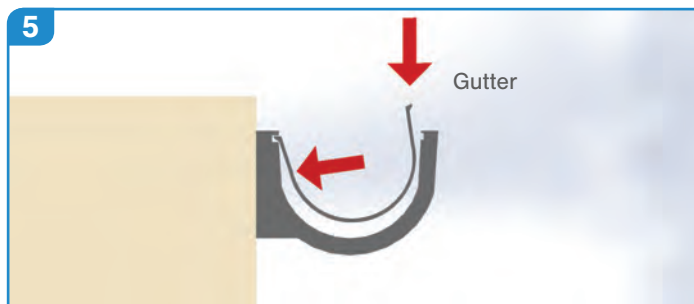


We recommend fixing brackets every 750mm and using an additional bracket for each outlet or angle.

Ideally using a string line or laser level between the two brackets, set out intermediate brackets at maximum centres of 750mm.



With the use of a plumb or laser line, position outlets over gullies and support with at least one bracket. Also include a bracket per angle (internal or external).

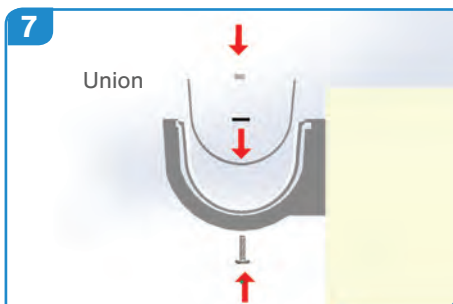


When fitting outlets and angles position the rear face of the gutter underneath the roof finish. Locate the gutter into the fascia bracket and then clip the front edge down into position.

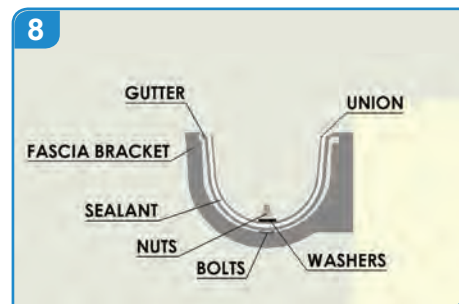
After fitting outlets and angles, proceed with fitting the gutter lengths using the same method.



Ensure that all fixing surfaces are clean and dry. Apply 6mm bead of low modulus sealant to each side of the joint.



Push bolts through the sole of the gutter from the underside and position union into the gutter ensuring that the slotted holes in the union are filled with sealant as the union is pressed into place. Apply nuts and washers and gently tighten (Do not overtighten as this may force the sealant out of the joint).



Clean off any excess sealant to either side of the joint or apply additional as required to create a smooth bead.

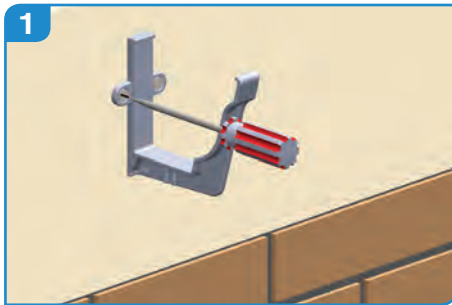


Any cut lengths should be de-burred and touched up with touch-up paint supplied prior to installation. For more information or further assistance, please contact us.

GUTTER FIXING

We advise that you ensure the fixing background (e.g fascia board) is securely fixed, level and able to support the weight of the gutter at full capacity and that the roof overhang is correct – see gutter position.

Sentinel Vintage Ogee guttering is fitted using fascia brackets. Buildings without fascias may need a different type of bracketry. ARP offer a range of brackets to suit most applications. ARP offer side and top fix rafter arms as well as rise and fall brackets. The latter do not meet current BS/EN load requirements so advise should be sort on the parameter of their use.



Start by deciding whether to fit the gutter level or with a fall to 1:600. Fit a bracket at each end of a run. Position brackets correctly for an angle or stopend.

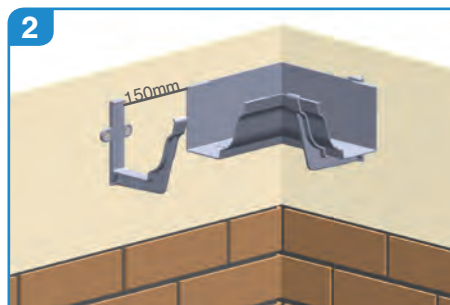
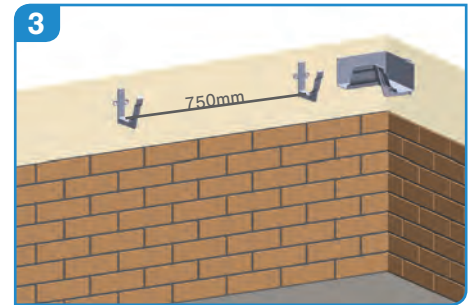
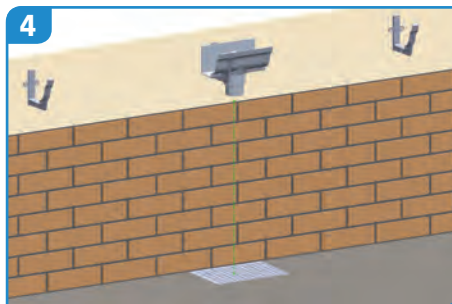


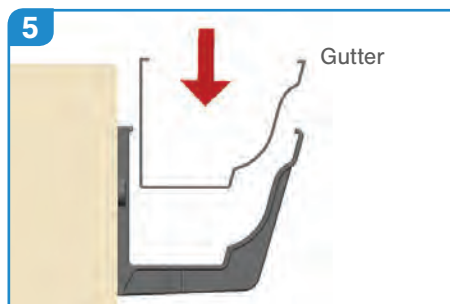
Image 2 shows the bracket for the angle and a bracket to take the gutter length.



We recommend fixing brackets every 750mm and using an additional bracket for each outlet or angle. Ideally using a string line or laser level between the two brackets, set out intermediate brackets at maximum centres of 750mm.



With the use of a plumb or laser line, position outlets over gullies and support with at least one bracket. Also include a bracket per angle (internal or external).



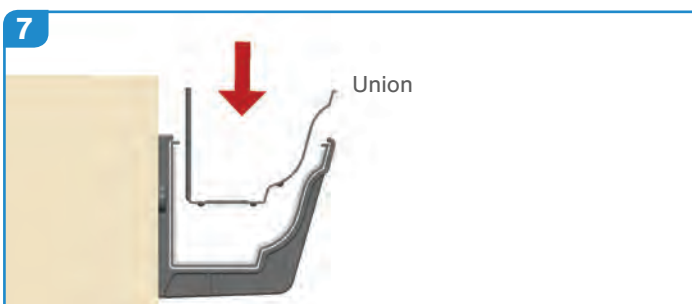
When fitting outlets and angles tuck the rear face of the gutter underneath the roof finish. Locate the gutter into the fascia bracket and then press down into position.

After fitting outlets and angles, proceed with fitting the gutter lengths using the same method.

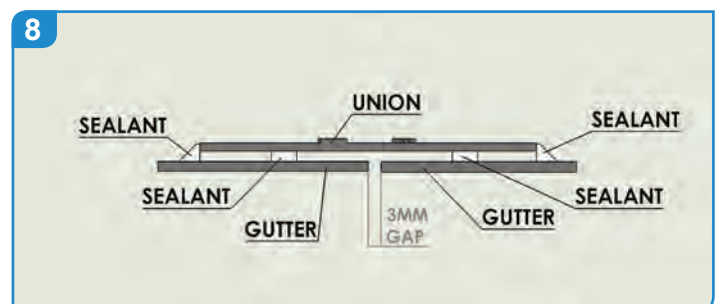


Ensure that all fixing surfaces are clean and dry. Place union adjacent to joint in gutter in preparation for fitting.

Apply a 6mm bead of low modulus sealant to each side of the joint.



After sealant is applied to gutter surfaces place union over joint and press down firmly until the union clips into place on both front and rear face of the gutter.



Clean off excess sealant along the edges of the joint. Use the same process for every joint until the work is completed

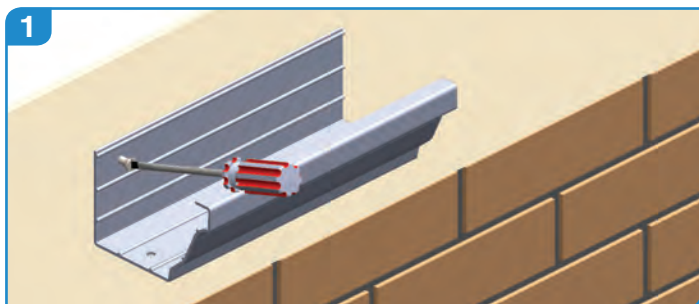


Any cut lengths should be de-burred and touched up with touch-up paint supplied prior to installation. For more information or further assistance, please contact us.

GUTTER FIXING

We advise that you ensure the fixing background (e.g fascia board) is securely fixed, level and able to support the weight of the gutter at full capacity and that the roof overhang is correct – see gutter position.

Sentinel Modern Ogee guttering is a direct fix system, so no need for extra bracketry.



Modern Ogee is fitted direct to the fascia board at 600 mm centres and has pre-drilled holes for fixing. Start by deciding whether to fit the gutter level or with a fall to 1:600.

Ideally using a string line or laser level, set out position from bottom edge of gutter.

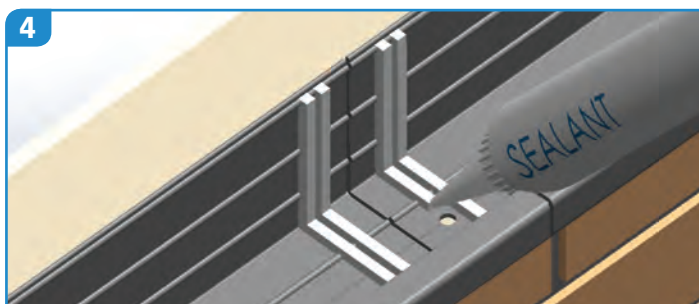


Fit outlets and angles first.

With the use of a plumb or laser line to set outlets over gullies. Fix gutter lengths utilising the pre-drilled fixing holes at 600 mm centres in the rear face of the gutter.



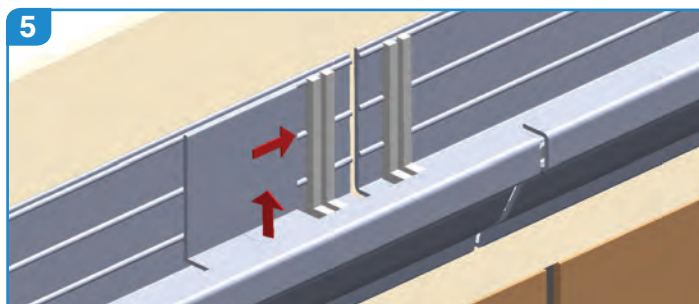
After outlets are positioned fit corners if applicable and then proceed to fit gutter lengths between corners and outlets.



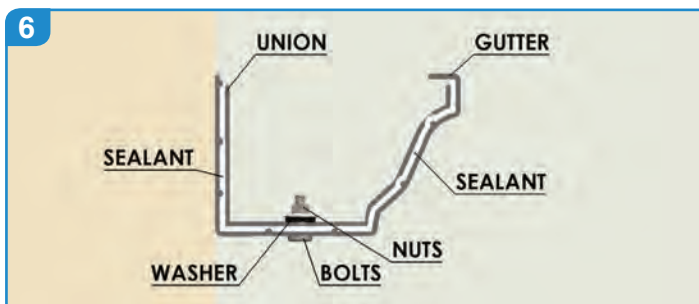
Place the union in the gutter adjacent to the joint.

Ensure that all fixing surfaces are clean and dry.

Apply 2 x 6mm beads of low modulus sealant to each side of the joint.



Push bolts through the sole of the gutter from the underside, lift and slide the union across the joint making sure the slotted holes in the union are filled with sealant as the union is pressed into place.



Apply nuts and washers and gently tighten (Do not overtighten as this may force the sealant out of the joint).

Clean off any excess sealant to either side of the joint or apply additional as required to create a smooth bead.



Any cut lengths should be de-burred and touched up with touch-up paint supplied prior to installation. For more information or further assistance, please contact us.

General specification clauses for aluminium rainwater systems are provided below. For project specific specification advice, contact ARP's Technical Team.

EXECUTION

600 PREPARATION

specified in this section, ensure that:

- Below ground drainage is ready to receive rainwater or that the discharge can be dispersed by approved means to prevent damage or disfigurement of the building fabric.
- Any specified painting of surfaces which will be concealed or inaccessible is completed.

605 INSTALLATION GENERALLY:

- Install pipework/gutters to ensure the complete discharge of rainwater from the building without leaking.
- Obtain all components for each type of pipework/guttering from the same manufacturer unless specified otherwise.
- Provide access fittings and rodding eyes as necessary in convenient locations to permit adequate cleaning and testing of pipework.
- Avoid contact between dissimilar metals and other materials which would result in electrolytic corrosion.
- Do not bend plastics or galvanised steel pipes.
- Adequately protect pipework/gutters from damage and distortion during construction. Fit purpose made temporary caps to prevent ingress of debris. Fit all access covers, cleaning eyes and blanking plates as the work proceeds.
- Where not specified otherwise use plated, sherardized, galvanised or non-ferrous fastenings, suitable for the purpose and background, and compatible with the material being fixed.

610 FIXING AND JOINTING GUTTERS:

- Fix securely at specified centres and at all joints in gutters, with additional brackets near angles and outlets.
- Provide for thermal and building movement when fixing and jointing, and ensure that clearances are not reduced as fixing proceeds.
- Seal as specified to make watertight.
- Spread jointing compound evenly over jointing faces.
- Remove surplus, squeezed out compound and neatly clean off.
- Ensure that roofing underlay is dressed into gutter.

615 SETTING OUT EAVES GUTTERS

- Gutters must be installed level or to a fall of between 1:350 and 1:600 unless otherwise specified.
- The gutter should be positioned at a level where the front lip of the gutter is 10mm under the line of the roof pitch ensuring excess debris and snow are not held within the gutter or back up the roof.
- Position outlets to align with connections to below ground drainage, unless shown otherwise on drawings.

630 RAINWATER OUTLETS:

Ensure that:

- Outlets are securely fixed before connecting pipework.
- Junctions between outlets and pipework can accommodate all movement in the structure and pipework caused by expansion.

435 FIXING PIPEWORK:

- In accordance with BS8230, fixed securely maximum of 2 metre centres.
- Make changes in direction of pipe runs only where shown on drawings unless otherwise approved.
- Access to be provided on every drop, in the form of a show or access plate.
- Fix branches and low gradient sections with uniform and adequate falls to drain efficiently.
- Fix externally socketed pipes/fittings with sockets facing upstream.
- Provide additional supports as necessary to support junctions and changes in direction.
- Fix every length of pipe at or close below the socket collar or coupling.
- Provide a load bearing support for vertical pipes at not less than every storey level. Tighten fixings as the work proceeds so that every storey is self supporting and undue weight is not imposed on fixings at the base

of the pipe.

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

650 JOINTING PIPEWORK/GUTTERS:

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

675 COATED PIPEWORK/GUTTERS:

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

690 ELECTRICAL CONTINUITY:

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

700 ACCESS FOR TESTING AND MAINTENANCE:

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

COMPLETION

900 TESTING GENERALLY:

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

910 GUTTER TEST:

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

915 MAINTENANCE INSTRUCTIONS

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

920 IMMEDIATELY BEFORE HANDOVER:

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

A typical NBS specification for Sentinel aluminium gutters is provided below. A full range of NBS specifications are available to download from ARP's online Specification Builder at www.arp-ltd.com/spec-builder.

For project specific advice, please contact our Technical Team on 0116 289 4400



SENTINEL

R10 Rainwater Drainage Systems

2 To be read with Preliminaries/General conditions.

GENERAL

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

SYSTEM PERFORMANCE

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

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

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

PRODUCTS

311 SENTINEL EXTRUDED ALUMINIUM GUTTERS

Gutters & Fittings: To BS 9101:2017
Manufacturer: ARP Ltd, Unit 2 Vitruvius Way, Meridian Business Park, Braunstone, Leicester, LE19 1WA
Tel: 0116 289 4400.
Email: sales@arp-ltd.com
Reference: Sentinel Extruded Aluminium Rainwater System
Profile: [Beaded Half Round] or [Deepflow Half Round] or [Vintage Ogee] or [Modern Ogee] **Delete as applicable**
Size: [114mm] or [125mm] or [150mm] or [100x75mm] or [125x100mm] or [150x100mm] or [200x150mm] **Delete as applicable**
Flow performance: As stated in ARP literature.
Outlet Size: [63mm diameter] or [76mm diameter] or [101mm diameter] or [63mm square] or [76mm square] or [101mm square] or [101 x 76mm Rectangular] **Delete as applicable**
Type / grade: Extruded from 6063 T6 alloy to BS EN 12020
Brackets: [Fascia Bracket] or [Direct Fix] **Delete as applicable**
Finish: Polyester powder coated to BS EN 12206-1:2004
Colour: TBC
Functional life expectancy: 60 years
Joining: Union Clips fitted internally at the joint and sealed with ARP approved low modulus sealant.
Fixing: At maximum 750mm centres and at each fitting, using austenitic stainless steel fixings.

Download your copy of our R10 Specifications from www.arp-ltd.com/specification/