

— LEGACY —

Cast Aluminium

TECHNICAL PRODUCT GUIDE



— LEGACY —

Cast Aluminium Gutters



Plain Half Round



Beaded Half Round



Beaded Deepflow



Victorian Ogee



Moulded Ogee

	100mm (4")	114mm (4.5")	125mm (5")	150mm (6")
Plain Half Round	✓	✓	✓	✓
Beaded Half Round	✓	✓	✓	
Beaded Deepflow		✓		
Victorian Ogee	✓	✓	✓	
Moulded Ogee	✓		✓	✓

Cast aluminium gutters have become the widely accepted alternative to Cast Iron and are now a first choice owing to their lightweight, corrosion resistant, low maintenance and aesthetically pleasing characteristics.

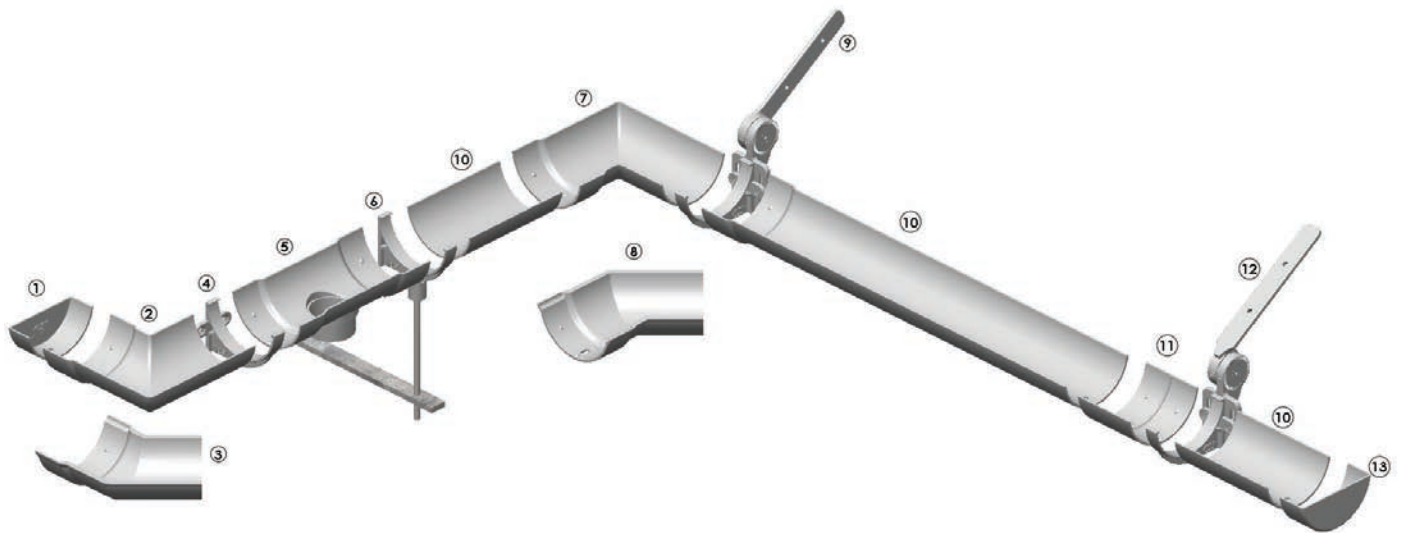
- Made from aluminium alloy LM6 to BS5750:2008.
- 100% recyclable.
- Lightweight.
- Marine grade.
- Variety of profiles available.
- Radius and special fittings can be provided.
- Mill finish or powder coated to your choice of RAL/BS Colour.
- Fitting instructions included with every delivery.



All Legacy cast aluminium gutter systems are left hand systems

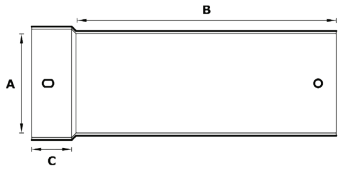


System Overview



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

Gutter Lengths

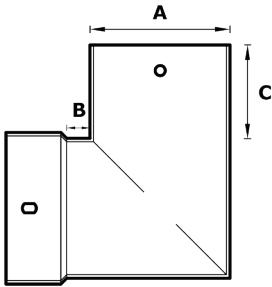


GUTTER SIZE A	B	C	DEPTH	PRODUCT CODE
100 (4")	1830	40	47	4CHRG1.8
114 (4½")	1830	40	51	4.5CHRG1.8
125 (5")	1830	40	59	5CHRG1.8
150 (6")	1830	40	63	6CHRG1.8

True and faceted radius gutters are available, for more information contact our Technical Team.



90° External Angle

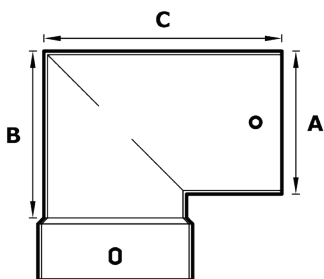


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	33	85	4CHRAX90
114 (4½")	33	78	4.5CHRAX90
125 (5")	33	75	5CHRAX90
150 (6")	33	75	6CHRAX90

Non standard angles available on request.



90° Internal Angle

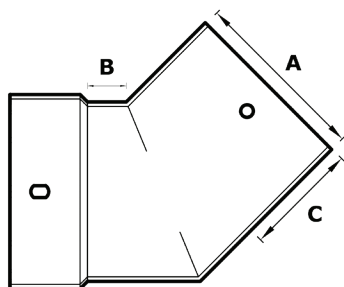


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	138	190	4CHRAI90
114 (4½")	152	197	4.5CHRAI90
125 (5")	164	206	5CHRAI90
150 (6")	190	232	6CHRAI90

Non standard angles available on request.



135° External Angle

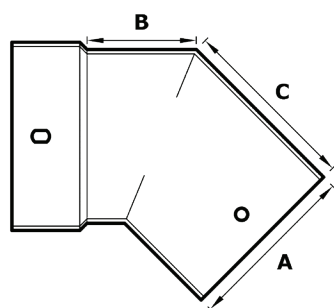


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	33	75	4CHRAX135
114 (4½")	33	78	4.5CHRAX135
125 (5")	33	71	5CHRAX135
150 (6")	33	71	6CHRAX135

Non standard angles available on request.



135° Internal Angle

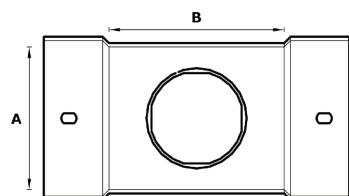


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	76	118	4CHRAI135
114 (4½")	82	124	4.5CHRAI135
125 (5")	87	125	5CHRAI135
150 (6")	97	136	6CHRAI135

Non standard angles available on request.



Running Outlet

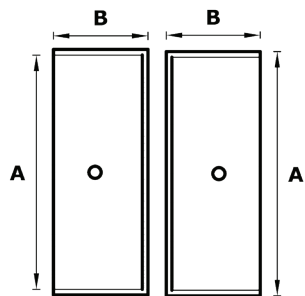


GUTTER SIZE A	OUTLET SIZE	B	PRODUCT CODE
100 (4")	Ø63	156	4CHRO2R
100 (4")	Ø76	156	4CHRO3R
114 (4½")	Ø63	156	4.5CHRO2R
114 (4½")	Ø76	156	4.5CHRO3R
125 (5")	Ø63	156	5CHRO2R
125 (5")	Ø76	156	5CHRO3R
150 (6")	Ø63	156	6CHRO2R
150 (6")	Ø76	154	6CHRO3R
150 (6")	Ø101	196	6CHRO4R



All dimensions shown in mm unless otherwise stated.

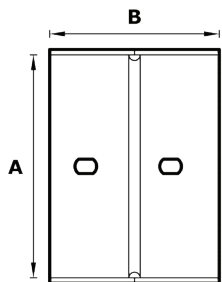
Stopends Internal/External



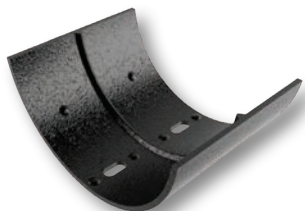
GUTTER SIZE A	B	PRODUCT CODE INT	PRODUCT CODE EXT
100 (4")	43	4CHRSEI	4CHRSEX
114 (4½")	43	4.5CHRSEI	4.5CHRSEX
125 (5")	43	5CHRSEI	5CHRSEX
150 (6")	43	6CHRSEI	6CHRSEX



Union Connector



GUTTER SIZE A	B	PRODUCT CODE
100 (4")	95	4CHRUC
114 (4½")	95	4.5CHRUC
125 (5")	95	5CHRUC
150 (6")	95	6CHRUC

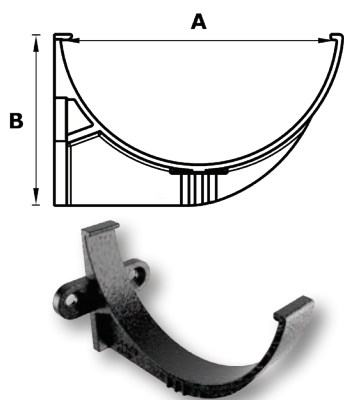


We manufacture and powder coat in-house, with short lead times, and items available from stock.



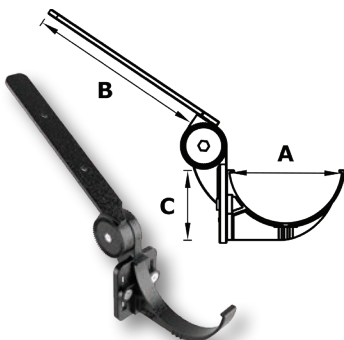
All dimensions shown in mm unless otherwise stated.

Fascia Bracket



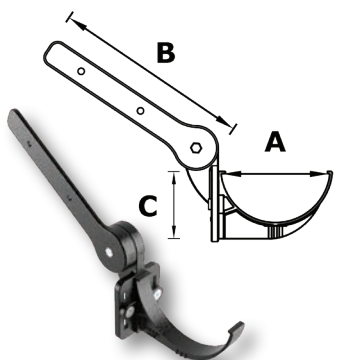
GUTTER SIZE A	B	PRODUCT CODE
100 (4")	71	4CHRBFB
114 (4½")	76	4.5CHRBFB
125 (5")	84	5CHRBFB
150 (6")	95	6CHRBFB

Top Fix Rafter Bracket



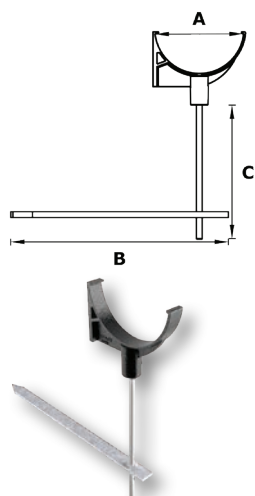
GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	195	71	4CHRBRT
114 (4½")	195	76	4.5CHRBRT
125 (5")	195	84	5CHRBRT
150 (6")	195	95	6CHRBRT

Side Fix Rafter Bracket



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	225	71	4CHRBRS
114 (4½")	225	76	4.5CHRBRS
125 (5")	225	84	5CHRBRS
150 (6")	225	95	6CHRBRS

Rise and Fall Bracket

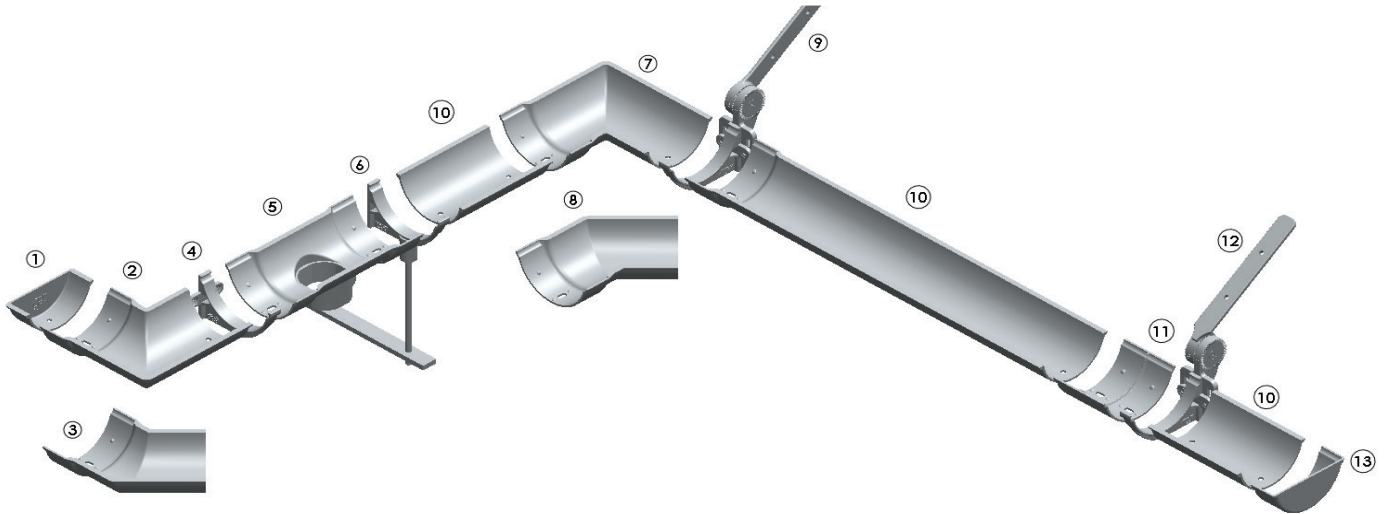


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	330	190	4CHRBRFB
114 (4½")	330	190	4.5CHRBRFB
125 (5")	330	190	5CHRBRFB
150 (6")	330	190	6CHRBRFB

All dimensions shown in mm unless otherwise stated.



System Overview

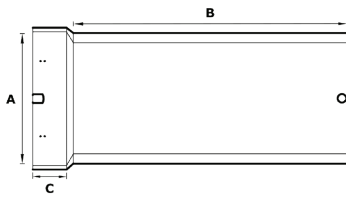


Number	Item	Number	Item
1	Internal Stopend	8	135° External Angle
2	90° External Angle	9	Side Fix Rafter Bracket
3	135° External Angle	10	Gutter Length
4	Fascia Bracket	11	Union Connector
5	Running Outlet	12	Top Fix Rafter Bracket
6	Rise and Fall Bracket	13	External Stopend
7	90° Internal Angle		

Cast Aluminium Gutter - Beaded Half Round



Gutter Lengths

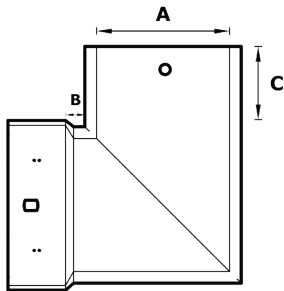


GUTTER SIZE A	B	C	DEPTH	PRODUCT CODE
100 (4")	1830	40	47	4CBHRG1.8
114 (4½")	1830	40	51	4.5CBHRG1.8
125 (5")	1830	40	59	5CBHRG1.8

True and faceted radius gutters are available, for more information contact our Technical Team.



90° External Angle

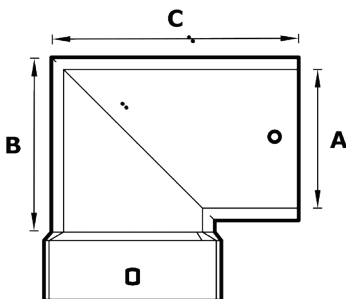


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	28	80	4CBHRAX90
114 (4½")	28	73	4.5CBHRAX90
125 (5")	28	70	5CBHRAX90

Non standard angles available on request.



90° Internal Angle



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	143	195	4CBHRAI90
114 (4½")	157	202	4.5CBHRAI90
125 (5")	169	211	5CBHRAI90

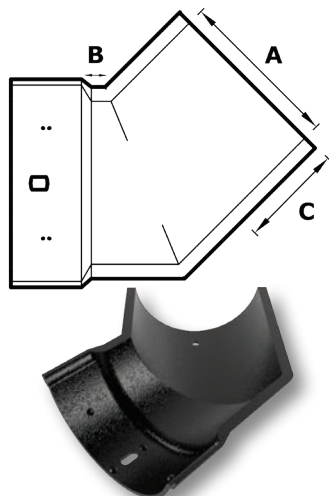
Non standard angles available on request.



All dimensions shown in mm unless otherwise stated.

Cast Aluminium Gutter - Beaded Half Round

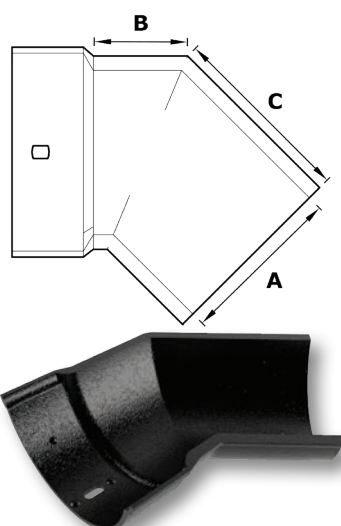
135° External Angle



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	31	73	4CBHRAX135
114 (4½")	31	73	4.5CBHRAX135
125 (5")	31	69	5CBHRAX135

Non standard angles available on request.

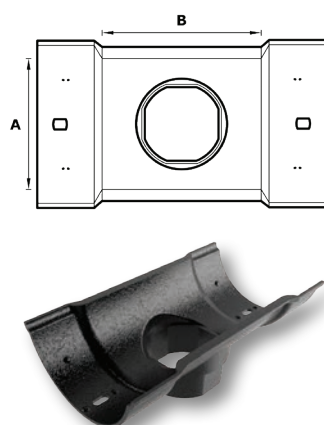
135° Internal Angle



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	76	118	4CBHRAI135
114 (4½")	84	126	4.5CBHRAI135
125 (5")	89	127	5CBHRAI135

Non standard angles available on request.

Running Outlets



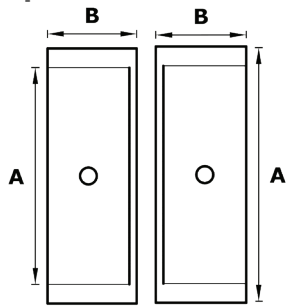
GUTTER SIZE A	OUTLET SIZE	B	PRODUCT CODE
100 (4")	Ø63	156	4CBHRO2R
100 (4")	Ø76	156	4CBHRO3R
114 (4½")	Ø63	156	4.5CBHRO2R
114 (4½")	Ø76	156	4.5CBHRO3R
125 (5")	Ø63	156	5CBHRO2R
125 (5")	Ø76	156	5CBHRO3R

All dimensions shown in mm unless otherwise stated.

Cast Aluminium Gutter - Beaded Half Round



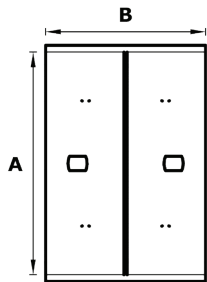
Stopsends Internal/External



GUTTER SIZE A	B	PRODUCT CODE INT	PRODUCT CODE EXT
100 (4")	43	4CBHRSEI	4CBHRSEX
114 (4½")	43	4.5CBHRSEI	4.5CBHRSEX
125 (5")	43	5CBHRSEI	5CBHRSEX



Union Connector



GUTTER SIZE A	B	PRODUCT CODE
100 (4")	95	4CBHRUC
114 (4½")	95	4.5CBHRUC
125 (5")	95	5CBHRUC

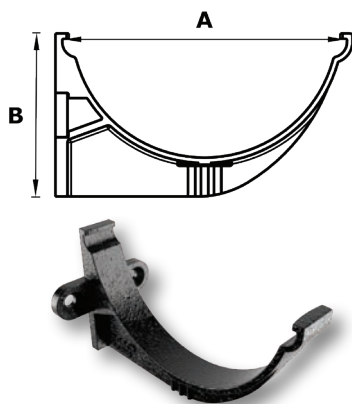


Trueline, for all your aluminium roofline requirements - fascia, soffit, cappings, copings and bespoke pressings.



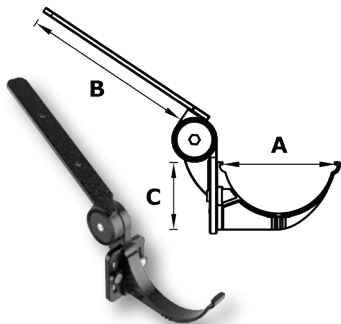
All dimensions shown in mm unless otherwise stated.

Fascia Bracket



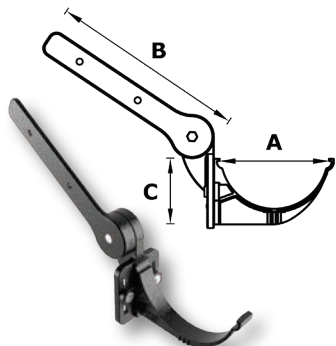
GUTTER SIZE A	B	PRODUCT CODE
100 (4")	71	4CBHRBF
114 (4½")	76	4.5CBHRBF
125 (5")	84	5CBHRBF

Top Fix Rafter Bracket



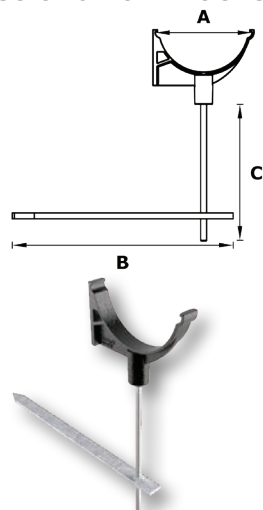
GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	195	71	4CBHRBRT
114 (4½")	195	76	4.5CBHRBRT
125 (5")	195	84	5CBHRBRT

Side Fix Rafter Bracket



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	225	71	4CBHRBRS
114 (4½")	225	76	4.5CBHRBRS
125 (5")	225	84	5CBHRBRS

Rise and Fall Bracket

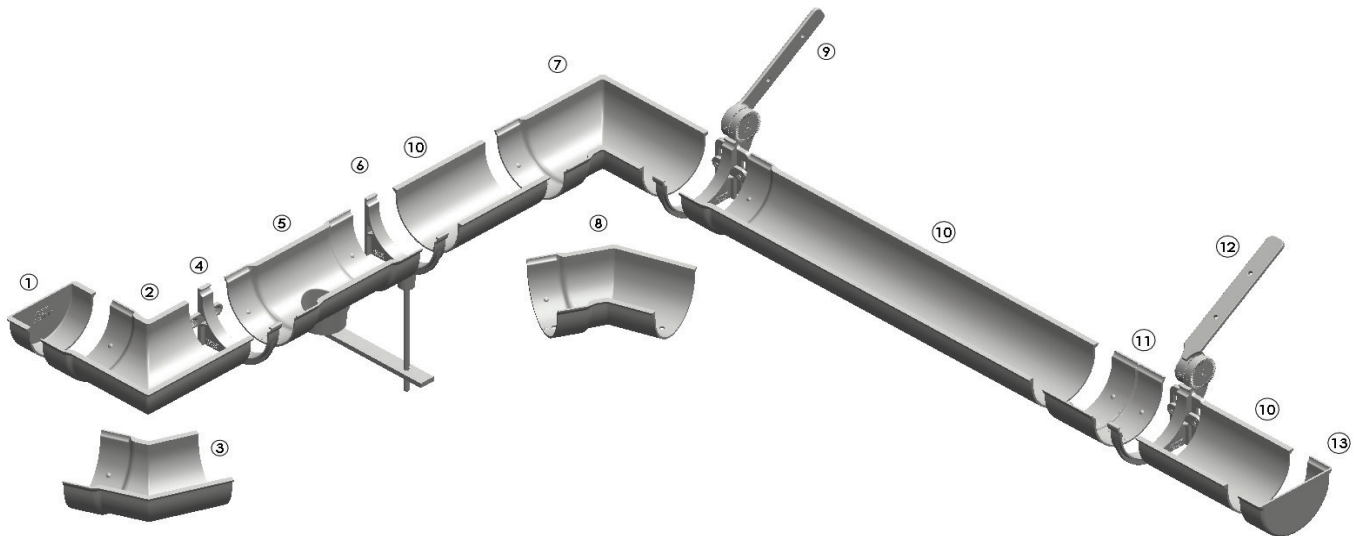


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	300	190	4CBHRBRF
114 (4½")	300	190	4.5CBHRBRF
125 (5")	300	190	5CBHRBRF

All dimensions shown in mm unless otherwise stated.



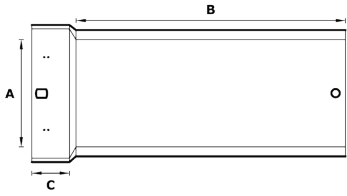
System Overview



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

Cast Aluminium Gutter - Deep Flow Half Round

Gutter Lengths

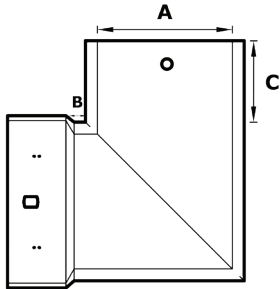


GUTTER SIZE A	B	C	DEPTH	PRODUCT CODE
114 (4½")	1830	50	75 (3")	4.5CDBHRG1.8

True and faceted radius gutters are available, for more information contact our Technical Team.



90° External Angle

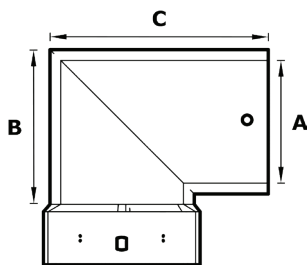


GUTTER SIZE A	B	C	PRODUCT CODE
114 (4½")	28	70	4.5CDBHRAX90

Non standard angles available on request.



90° Internal Angle



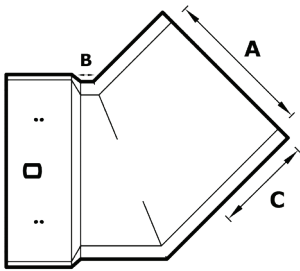
GUTTER SIZE A	B	C	PRODUCT CODE
114 (4½")	162	204	4.5CDBHRAI90

Non standard angles available on request.



All dimensions shown in mm unless otherwise stated.

135° External Angle

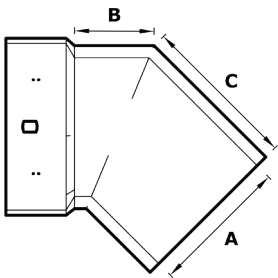


GUTTER SIZE A	B	C	PRODUCT CODE
114 (4½")	28	70	4.5CDBHRAX135

Non standard angles available on request.



135° Internal Angle

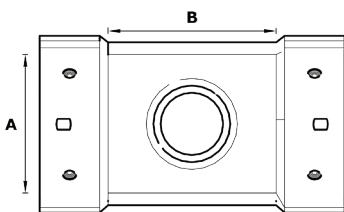


GUTTER SIZE A	B	C	PRODUCT CODE
114 (4½")	83	125	4.5CDBHRAI135

Non standard angles available on request.



Running Outlet

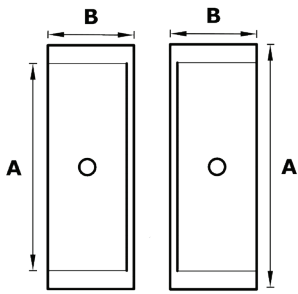


GUTTER SIZE A	OUTLET SIZE	B	PRODUCT CODE
114 (4½")	Ø63	156	4.5CDBHRO2R
114 (4½")	Ø76	156	4.5CDBHRO3R



All dimensions shown in mm unless otherwise stated.

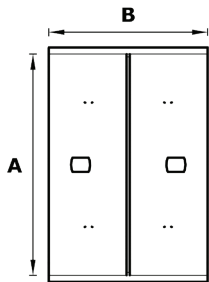
Stopsends Internal/External



GUTTER SIZE A	B	PRODUCT CODE INT	PRODUCT CODE EXT
114 (4½")	43	4.5CDBHRSEI	4.5CDBHRSEX



Union Connector



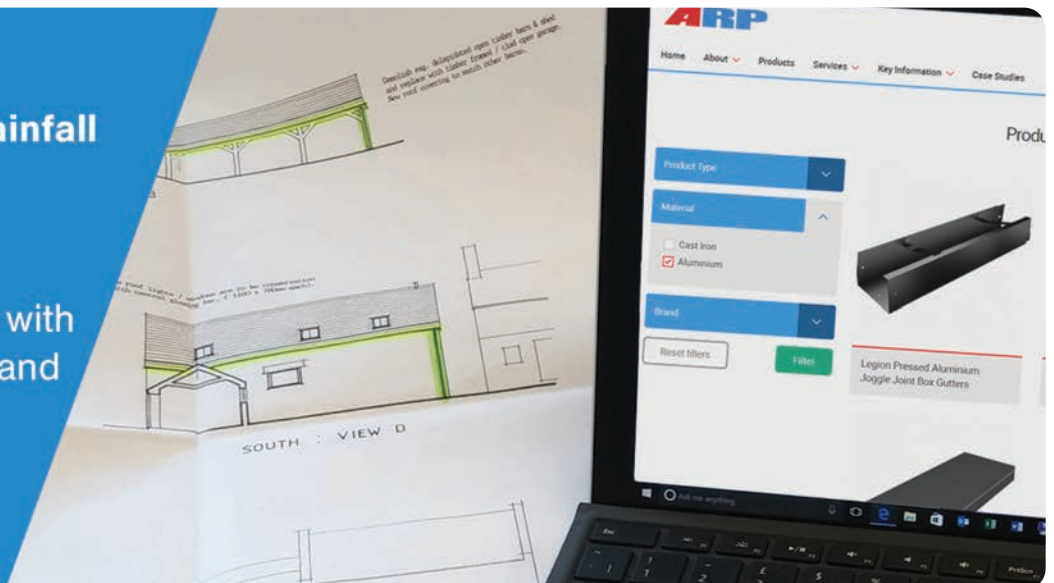
GUTTER SIZE A	B	PRODUCT CODE
114 (4½")	95	4.5CDBHRUC



Need help with rainfall calculations?

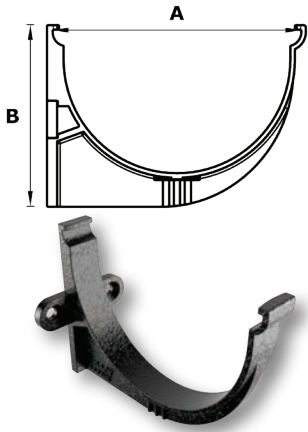
We can help.

Simply provide us with a few dimensions and we will do the rest for you.



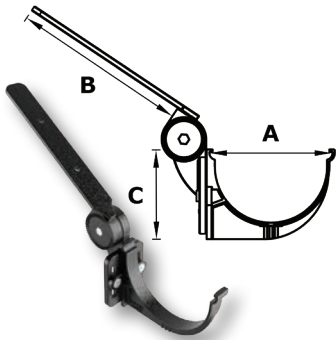
All dimensions shown in mm unless otherwise stated.

Fascia Bracket



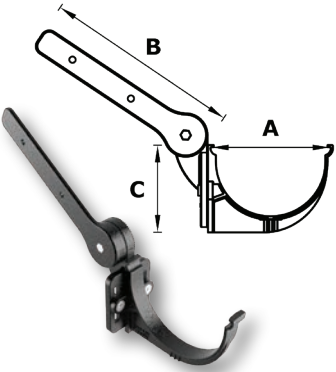
GUTTER SIZE A	B	PRODUCT CODE
114 (4½")	100	4.5CDBHRBF

Top Fix Rafter Bracket



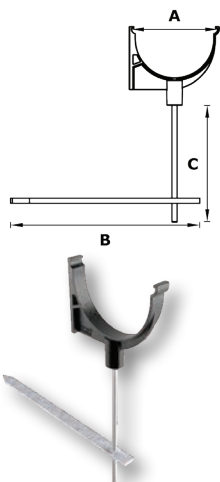
GUTTER SIZE A	B	C	PRODUCT CODE
114 (4½")	195	100	4.5CDBHRBRT

Side Fix Rafter Bracket



GUTTER SIZE A	B	C	PRODUCT CODE
114 (4½")	225	100	4.5CDBHRBS

Rise and Fall Bracket

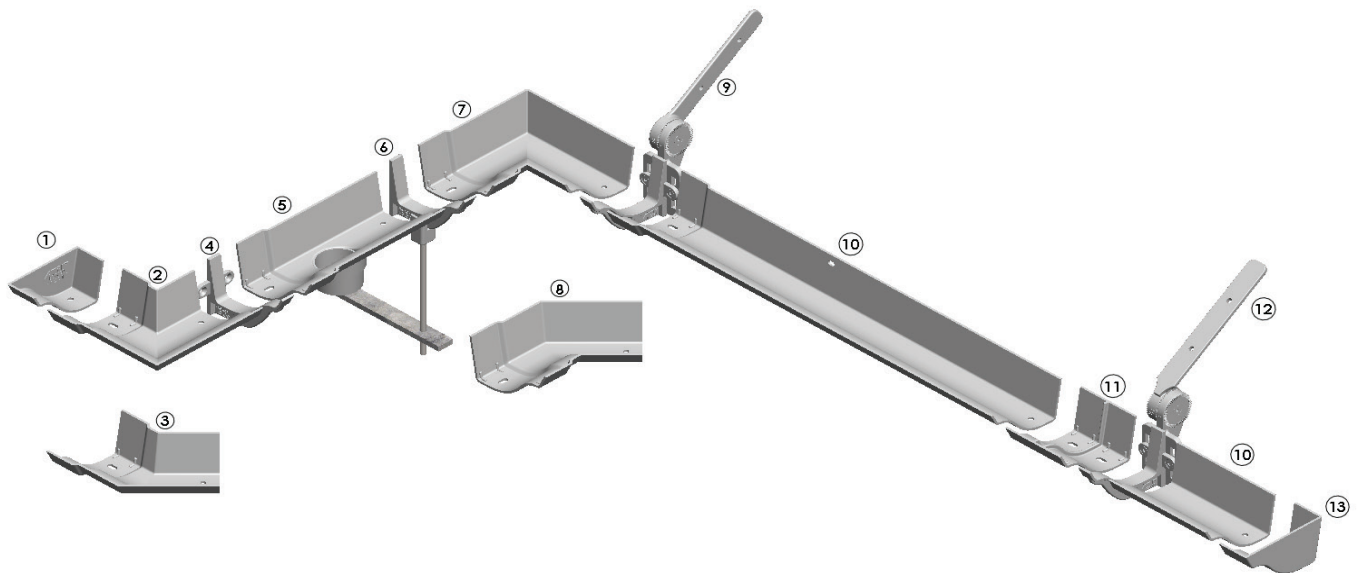


GUTTER SIZE A	B	C	PRODUCT CODE
114 (4½")	330	190	4.5CDBHRBRF

All dimensions shown in mm unless otherwise stated.



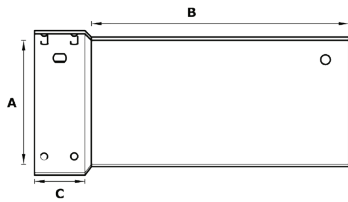
System Overview



Number	Item	Number	Item
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4	Fascia Bracket	11	Union Connector
5	Running Outlet	12	Top Fix Rafter Bracket
6	Rise and Fall Bracket	13	External Stopend
7	90° Internal Angle		

All dimensions shown in mm unless otherwise stated.

Gutter Lengths

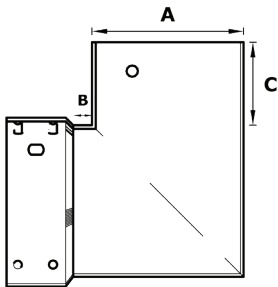


GUTTER SIZE A	B	C	DEPTH	PRODUCT CODE
100 (4")	1830	40	55	4CVOG1.8
114 (4½")	1830	40	61	4.5CVOG1.8
125 (5")	1830	40	67	5CVOG1.8

True and faceted radius gutters are available, for more information contact our Technical Team.



90° External Angle

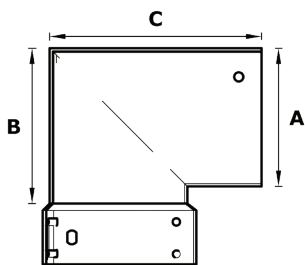


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	24	68	4CVOAX90
114 (4½")	19	63	4.5CVOAX90
125 (5")	24	68	5CVOAX90

Non standard angles available on request.

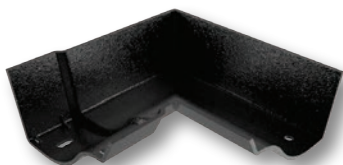


90° Internal Angle

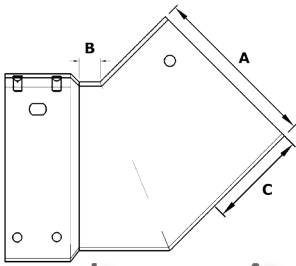


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	135	179	4CVOAI90
114 (4½")	143	189	4.5CVOAI90
125 (5")	157	201	5CVOAI90

Non standard angles available on request.



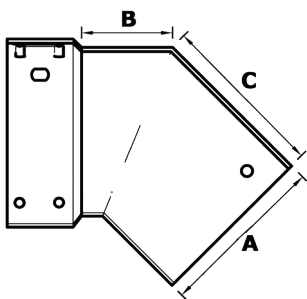
135° External Angle



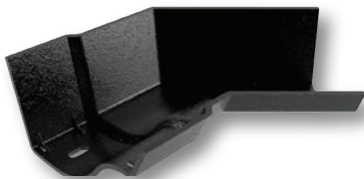
GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	24	75	4CVOAX135
114 (4½")	24	75	4.5CVOAX135
125 (5")	24	68	5CVOAX135



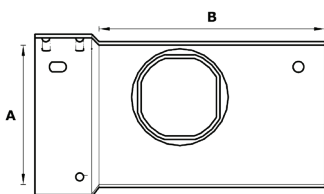
135° Internal Angle



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	70	121	4CVOI135
114 (4½")	75	126	4.5CVOI135
125 (5")	80	124	5CVOI135



Running Outlets

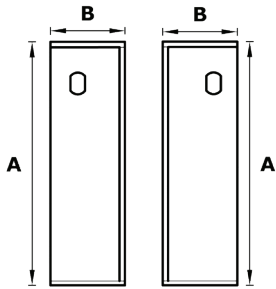


GUTTER SIZE A	OUTLET SIZE	B	PRODUCT CODE
100 (4")	Ø63	196	4CVOO2R
100 (4")	Ø76	196	4CVOO3R
114 (4½")	Ø63	196	4.5CVOO2R
114 (4½")	Ø76	196	4.5CVOO3R
125 (5")	Ø63	196	5CVOO2R
125 (5")	Ø76	196	5CVOO3R



All dimensions shown in mm unless otherwise stated.

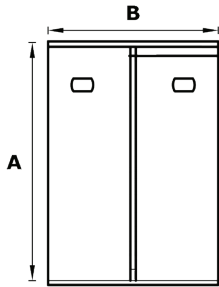
Stopends Internal/External



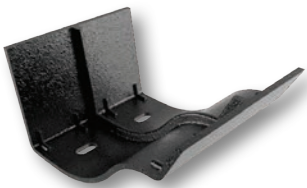
GUTTER SIZE A	B	PRODUCT CODE INT	PRODUCT CODE EXT
100 (4")	47	4CVOSEI	4CVOSEX
114 (4½")	47	4.5CVOSEI	4.5CVOSEX
125 (5")	47	5CVOSEI	5CVOSEX



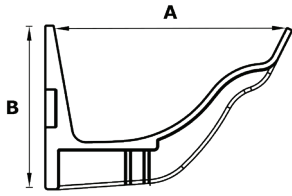
Union Connector



GUTTER SIZE A	B	PRODUCT CODE
100 (4")	96	4CVOUC
114 (4½")	96	4.5CVOUC
125 (5")	96	5CVOUC



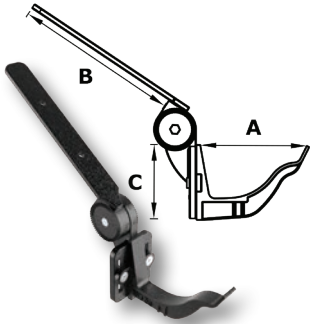
Fascia Bracket



GUTTER SIZE A	B	PRODUCT CODE
100 (4")	82	4CVOBF
114 (4½")	89	4.5CVOBF
125 (5")	96	5CVOBF

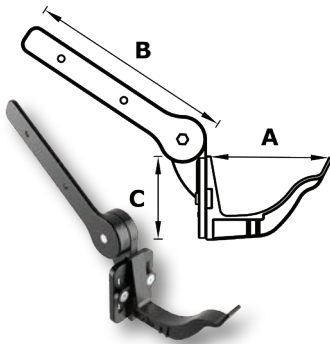


Top Fix Rafter Bracket



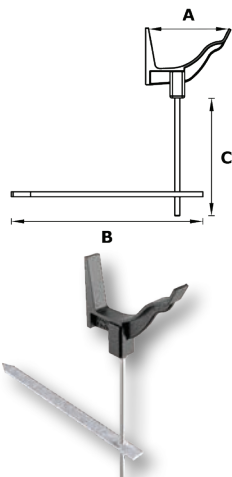
GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	195	82	4CVOBRT
114 (4½")	195	89	4.5CVOBRT
125 (5")	195	96	5CVOBRT

Side Fix Rafter Bracket



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	225	82	4CVOBRS
114 (4½")	225	89	4.5CVOBRS
125 (5")	225	96	5CVOBRS

Rise and Fall Bracket

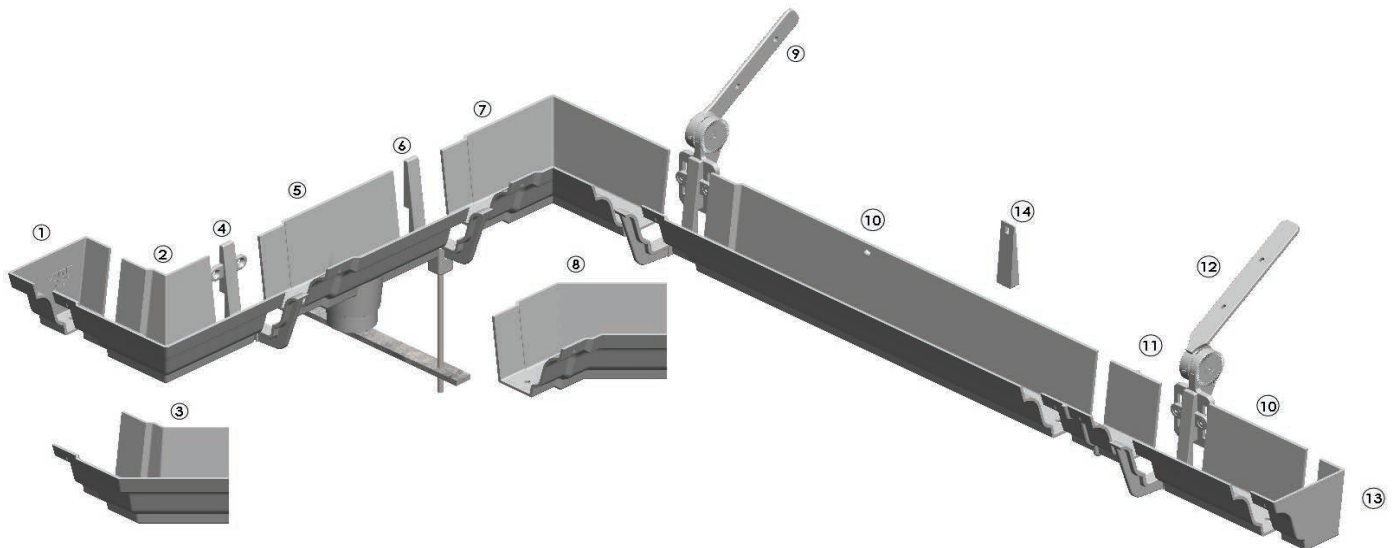


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	330	190	4CVOBRF
114 (4½")	330	190	4.5CVOBRF
125 (5")	330	190	5CVOBRF

All dimensions shown in mm unless otherwise stated.



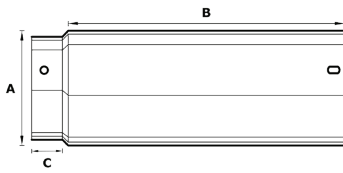
System Overview



Number	Item	Number	Item
1	Internal Stopend	8	135° Internal Angle
2	90° External Angle	9	Side Fix Rafter Bracket
3	135° External Angle	10	Gutter Length
4	Fascia Bracket	11	Union Connector
5	Running Outlet	12	Top Fix Rafter Bracket
6	Rise and Fall Bracket	13	External Stopend
7	90° Internal Angle	14	Direct Fix Wedge

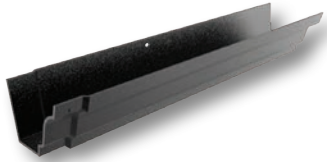
100x75mm & 125x100mm ranges are left hand systems; 150x100mm range is a right hand system.

Gutter Lengths

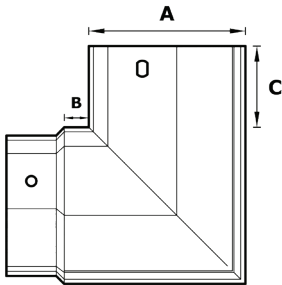


GUTTER SIZE A	B	C	DEPTH	PRODUCT CODE
100 (4")	1830	40	75 (3")	43CMOG1.8
125 (5")	1830	40	100 (4")	54CMOG1.8
150 (6")	1830	40	100 (4")	64CMOG1.8

True and faceted radius gutters are available, for more information contact our Technical Team.

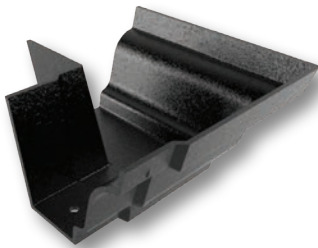


90° External Angle

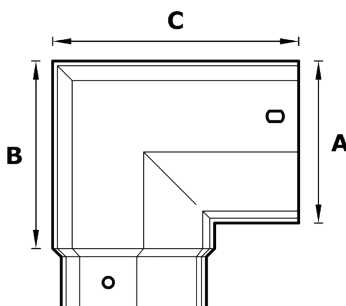


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	25	75	43CMOAX90
125 (5")	27	72	54CMOAX90
150 (6")	33	79	64CMOAX90

Non standard angles available on request.

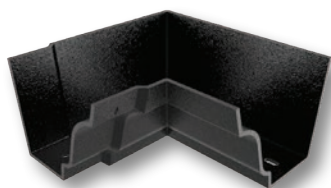


90° Internal Angle



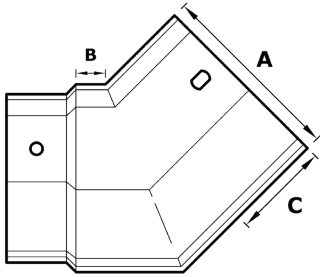
GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	131	173	43CMOAI90
125 (5")	163	206	54CMOAI90
150 (6")	190	234	64CMOAI90

Non standard angles available on request.



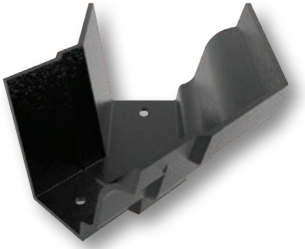
All dimensions shown in mm unless otherwise stated.

135° External Angle

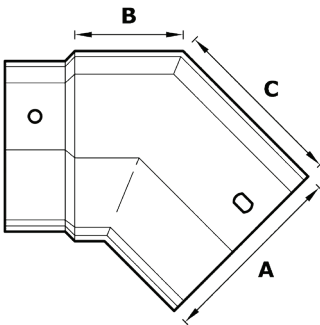


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	23	76	43CMOAX135
125 (5")	25	80	54CMOAX135
150 (6")	31	78	64CMOAX135

Non standard angles available on request.

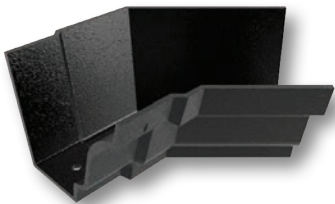


135° Internal Angle

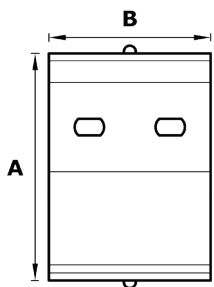


GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	67	120	43CMOAI135
125 (5")	78	137	54CMOAI135
150 (6")	95	142	64CMOAI135

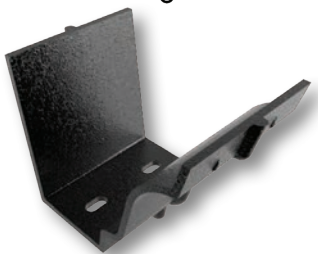
Non standard angles available on request.



Union Connector

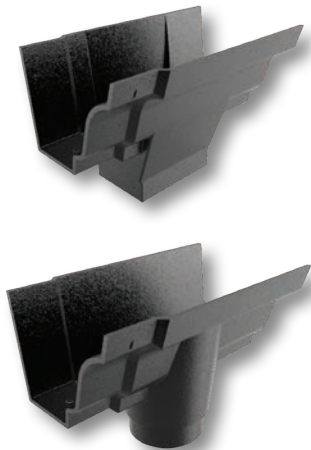
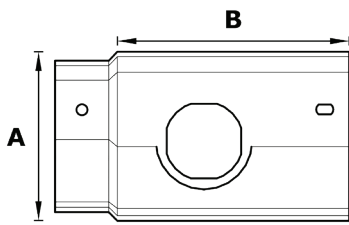


GUTTER SIZE A	B	PRODUCT CODE
100 (4")	91	43CMOUC
125 (5")	87	54CMOUC
150 (6")	92	64CMOUC



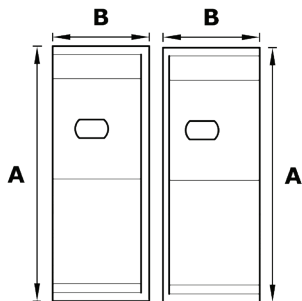
All dimensions shown in mm unless otherwise stated.

Running Outlet



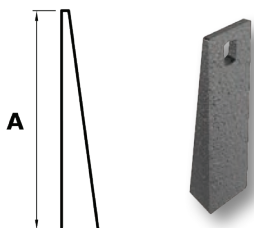
GUTTER SIZE A	OUTLET SIZE	B	PRODUCT CODE
100 (4")	Ø63	198	43CMOO2R
100 (4")	Ø76	198	43CMOO3R
100 (4")	76 Sq	198	43CMOO3S
100 (4")	101 x76 Rect	198	43CMOO43
125 (5")	Ø63	199	54CMOO2R
125 (5")	Ø76	200	54CMOO3R
125 (5")	Ø101	200	54CMOO4R
125 (5")	76 Sq	200	54CMOO3S
125 (5")	101 x76 Rect	200	54CMOO43
150 (6")	Ø63	199	64CMOO2R
150 (6")	Ø76	199	64CMOO3R
150 (6")	Ø101	199	64CMOO4R
150 (6")	76 Sq	199	64CMOO3S
150 (6")	101 x76 Rect	199	64CMOO43
150 (6")	101 Sq	199	64CMOO4S

Stopsends Internal/External



GUTTER SIZE A	B	PRODUCT CODE INT	PRODUCT CODE EXT
100 (4")	47	43CMOSEI	43CMOSEX
125 (5")	45	54CMOSEI	54CMOSEX
150 (6")	47	64CMOSEI	64CMOSEX

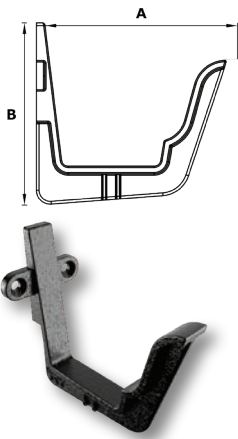
Direct Fix Wedge



GUTTER SIZE A	A	PRODUCT CODE
100 (4")	65	43CMOBDF
125 (5")	90	CMOGWEDGE
150 (6")	90	CMOGWEDGE

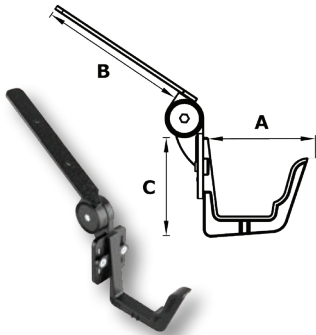
All dimensions shown in mm unless otherwise stated.

Fascia Brackets



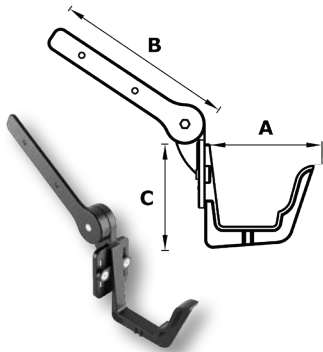
GUTTER SIZE A	B	PRODUCT CODE
100 (4")	104	43CMOBF
125 (5")	130	54CMOBF
150 (6")	131	64CMOBF

Top Fix Rafter Bracket



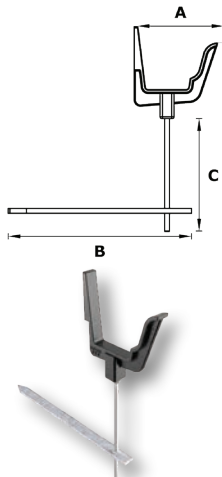
GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	195	104	43CMOBRT
125 (5")	195	130	54CMOBRT
150 (6")	195	131	64CMOBRT

Side Fix Rafter Bracket



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	225	104	43CMOBRS
125 (5")	225	130	54CMOBRS
150 (6")	225	131	64CMOBRS

Rise and Fall Bracket



GUTTER SIZE A	B	C	PRODUCT CODE
100 (4")	330	190	43CMOBRF
125 (5")	330	190	54CMOBRF
150 (6")	330	190	64CMOBRF

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 be 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 to a fall of 1:600 or a maximum of 1:350. 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.

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 (ARP Arbosil 1096) 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 (3mm) 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.



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.



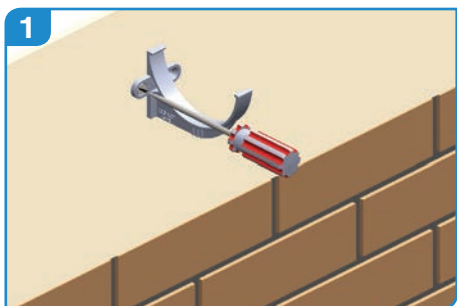
Installation Guide for HALF ROUND, DEEPFLOW & VICTORIAN OGEE SYSTEMS



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).

Legacy cast aluminium gutters are fitted using fascia brackets. Buildings without fascias may need a different type of bracketry. We offer rise & fall brackets and rafter brackets as options, however due of the variety of installations these do not suit BS/EN levels regarding loading, so advice should be sought on parameters of 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.

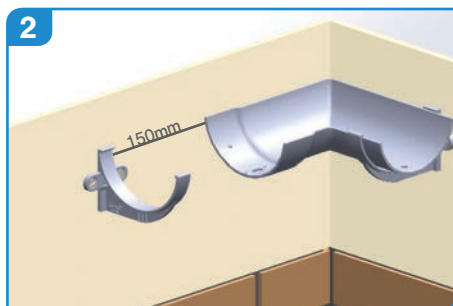
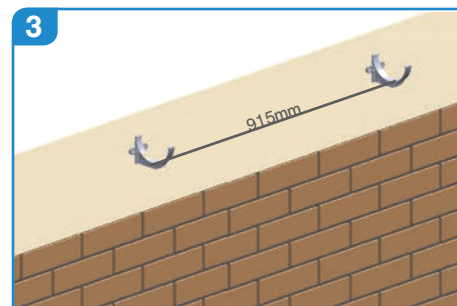


Image 2 shows the ideal bracket positioning for the angle and bracket to take the gutter length. (Max 150 mm from joint).

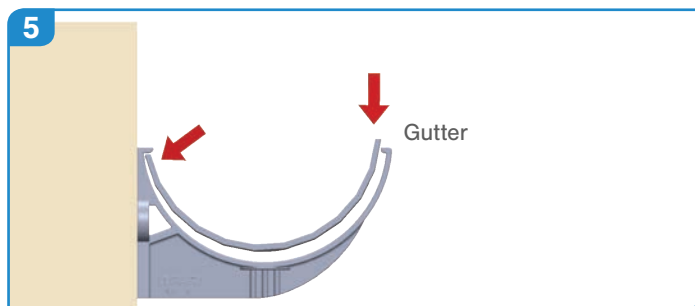


We recommend fixing brackets every 915mm and using an additional bracket for each outlet or angle.

Ideally using a string line or laser level between the two brackets, set out intermediate brackets at maximum centres of 915mm.



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).

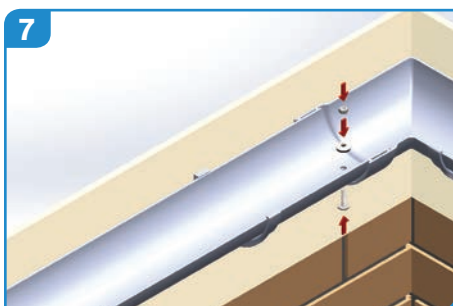


When fitting outlets and angles position the rear face of the gutter underneath the roof finish. Locate the gutter into the fascia bracket and then clip the front edge down into position.

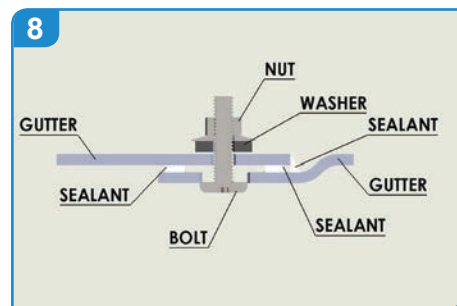
After fitting outlets and angles, proceed with fitting the gutter lengths using the same method.



Ensure that all fixing surfaces are clean and dry. Apply 2 x 6mm beads of low modulus sealant into the socket end of gutter, place gutter length into sealant/socket.



Push bolt through the sole of the gutter socket ensuring that the slot is filled with sealant before applying nut and washer, 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. Apply additional sealant as required to the internal face only to create a smooth bead.

N.B. Union connectors are available to allow the use of cut lengths.

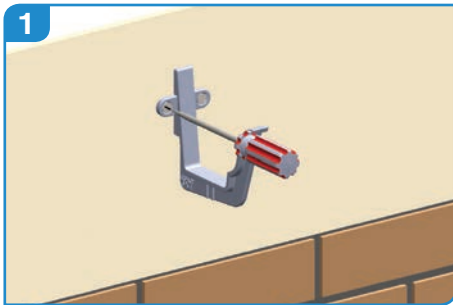


Any cut lengths should be de-burred and touched up with touch-up paint supplied prior to installation. For more information or further assistance, please contact us.

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).

Legacy cast aluminium gutters are fitted using fascia brackets. Buildings without fascias may need a different type of bracketry. We offer rise & fall brackets and rafter brackets as options, however due of the variety of installations these do not suit BS/EN levels regarding loading, so advice should be sought on parameters of 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.

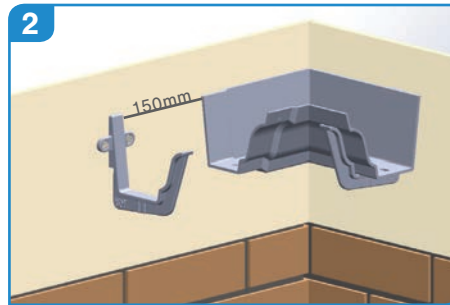
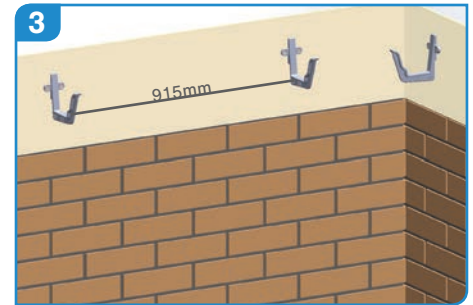


Image 2 shows the ideal bracket positioning for the angle and bracket to take the gutter length. (Max 150 mm from joint).

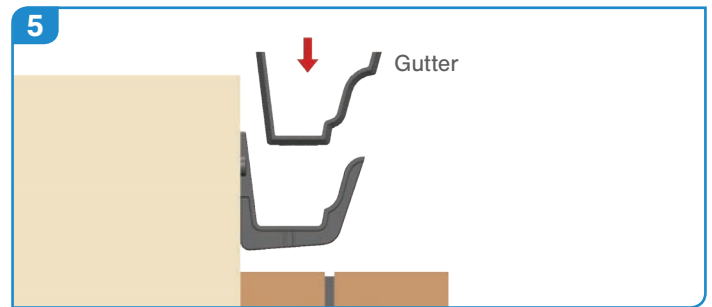


We recommend fixing brackets every 915mm and using an additional bracket for each outlet or angle.

Ideally using a string line or laser level between the two brackets, set out intermediate brackets at maximum centres of 915mm.

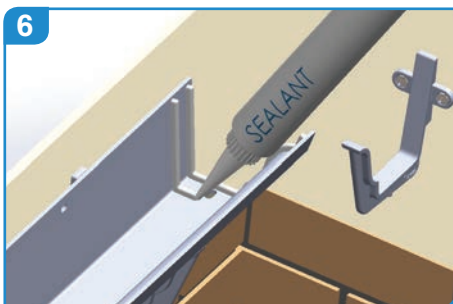


With the use of a plumb or laser line, position outlets over gullies and support with at least one bracket. Also include a bracket per angle (internal or external).

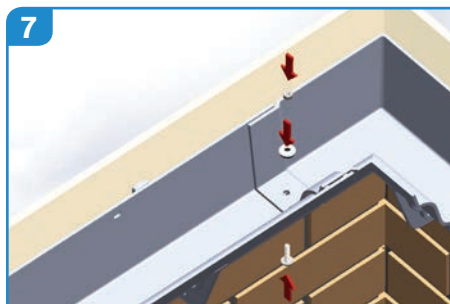


When fitting outlets and angles position the rear face of the gutter underneath the roof finish. Locate the gutter into the fascia bracket and then clip the front edge down into position.

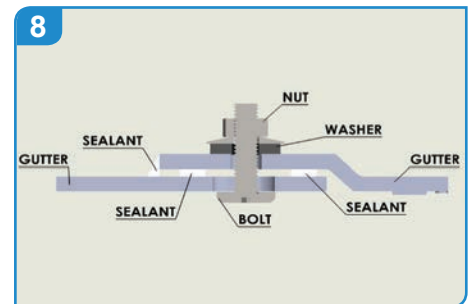
After fitting outlets and angles, proceed with fitting the gutter lengths using the same method.



Ensure that all fixing surfaces are clean and dry. Apply 2 x 6mm beads of low modulus sealant into the plain end of the gutter, place the spigot end of the gutter length into sealant.



Push bolt through the sole of the plain end of the gutter from the underside and position spigot end of gutter directly over joint. Ensure that the slot is filled with sealant before applying nut and washer, 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. Apply additional sealant as required to the internal face only to create a smooth bead.

N.B. Union connectors are available to allow the use of cut lengths.



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 our 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.