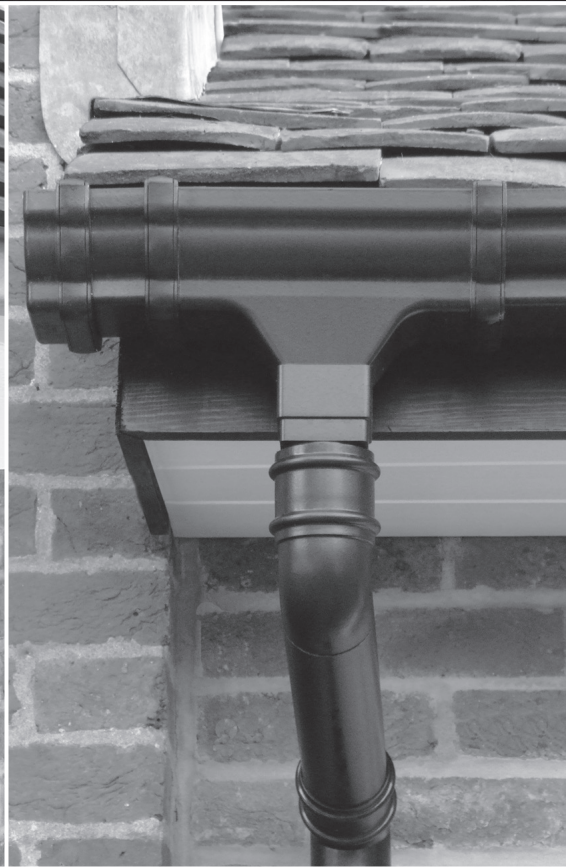


“Cast Iron” Style Rainwater & Soil Systems



FloPlast “Cast Iron” Style Rainwater Systems replicate traditional Cast Iron styling with all the benefits of a modern UPVC system. The product is quick and easy to install, is corrosion free with no need for painting. FloPlast “Cast Iron” Style Rainwater gives the home owner all of the aesthetic features of traditional cast systems but at less than half the cost.

System Features and Benefits

- 3 profiles available - Half Round, Hi-Cap and Niagara
- Lightweight and resilient material
- Reduced labour costs
- Ideal for new build and renovation projects
- Architectural features e.g. Hopper Motifs
- 20 Year “Cast Iron” Colour Guarantee

Standards/Quality Control

FloPlast consider that an integral part of our business undertaking is to minimise any potentially harmful effects on the environment that our activities may cause. FloPlast aim to take into account sustainability in our product design, applications and commitment to the protection of the environment and prevention of pollution, in all we do.

FloPlast operations embrace energy, quality and environment management systems which have been accredited by BSI to BS EN ISO 9001:2008 Certificate No. FM 501414, BS EN ISO 14001:2004 Certificate No. EMS 538445, BS EN ISO 18001:2007 Certificate No. OHS 593622 and BS EN ISO 50001:2011 Certificate No. ENMS 638370.



All products are subject to continuous quality control procedures and products manufactured to British Standard Specifications are marked accordingly. For CE DOP's (Declaration of Performance), please refer to our website at www.floplast.co.uk.

Increasingly, organisations need to demonstrate their environmental credentials to their customer. The Carbon Trust Standard certifies organisations for real carbon reduction and a commitment to ongoing reductions and is an award for organisations that can prove that they have measured, managed and reduced their carbon emissions year on year.

By reducing carbon emissions, FloPlast has demonstrated that taking action on climate change, by proactively managing regulatory compliance, delivers energy cost reductions, an enhanced reputation and satisfied employees & stakeholders.

As one of only a handful of companies within our industry to have achieved this award, it demonstrates that FloPlast is at the forefront of addressing environmental issues. The award is recognition of the action taken within the organisation to reduce our carbon footprint rather than paying others to offset it.

Transport, Handling and Storage

FloPlast “Cast Iron” Style pipes and gutters are supplied in secure bales bound with straps within timber frames, **FloPlast** recommend that movement of bales is carried out by fork lift or other mechanical device using webbing or rope strings.

The bales may be stacked up to a maximum of three high, providing that the timber frames are placed on each other.

Fittings are generally supplied in plastic bags and should be stored away from direct sunlight. If they have to be stored outside, the bags should be opened to prevent temperature build-up.

Terms and Conditions of Sale

Goods are sold subject to our Standard Terms and Conditions of Sale, copies of which are available upon request. **FloPlast Limited** reserve the right to modify or extend any product range or published information without prior notice.

FLOPLAST MARKETING SUPPORT

Our in-house Marketing department can provide you with a range of support materials e.g. brochures, banners, stockist boards, bespoke leaflets, bin labels, P.O.S and posters. FloPlast is fully committed to

working with its partners. As such, we are always receptive to new ideas and are open to discussing any Marketing initiatives, which our partners may wish to undertake.



"Cast Iron" Style Leaflets

Our "Cast Iron" Style information leaflets clearly identify codes and descriptions of each product range; user friendly to ensure smooth and efficient order process.



"Cast Iron" Style Rainwater Trade Counter Boards

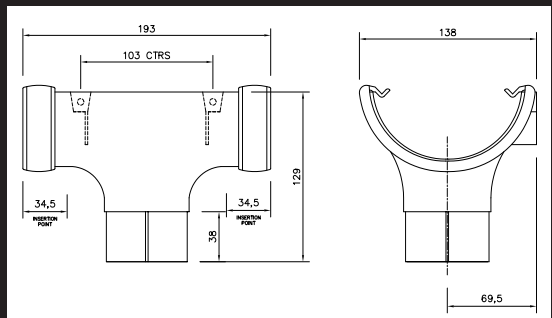
Perfect for any Trade Counter, giving the customer a chance to see, touch and feel the product in the flesh and learn more.

FLOPLAST CAD DRAWINGS

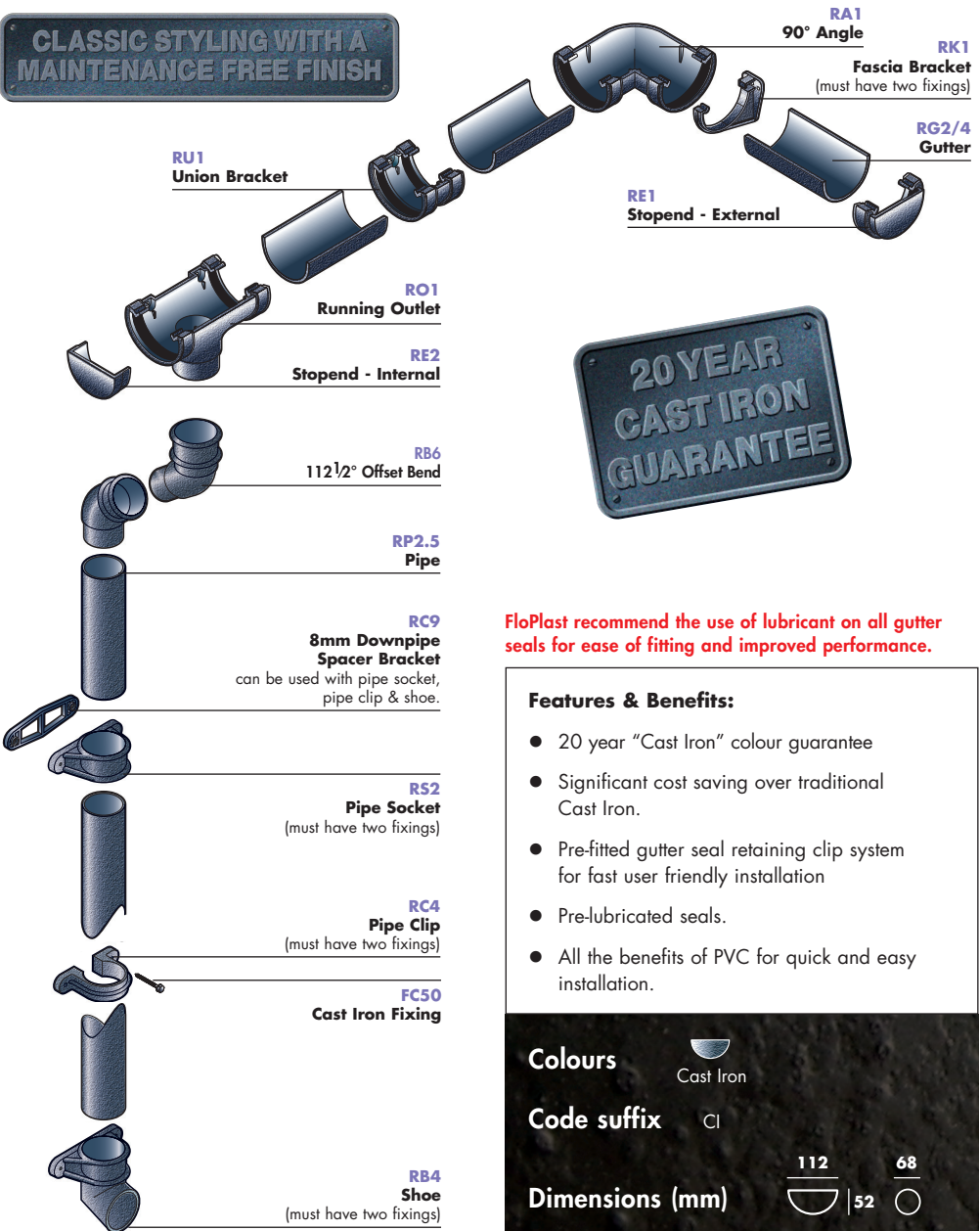
The benefits of CAD drawings are well known by the Architect/Specifier community. Drawings are available to download for each product that

FloPlast manufacture. Please visit www.floplast.co.uk and click on the 'links' section. For your convenience, files are downloadable as either a .dwg (primarily for CAD programs) or as a PDF for easy viewing.

All files determine design lengths required by the Architect/Specifier to enable them to produce accurate drawings.



CLASSIC STYLING WITH A MAINTENANCE FREE FINISH



FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

Features & Benefits:

- 20 year "Cast Iron" colour guarantee
- Significant cost saving over traditional Cast Iron.
- Pre-fitted gutter seal retaining clip system for fast user friendly installation
- Pre-lubricated seals.
- All the benefits of PVC for quick and easy installation.

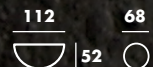
Colours



Code suffix

CI





Dimensions (mm)



112MM GUTTER & FITTINGS BS EN 607:2004, BS 12200-1:2000, BS EN 1462:2004

Gutter and pipe code reference numbers refer to length of run: 2 metres, 2.5 metres and 4 metres.

For Ancillaries and Spares see page 10.








Product	Code	
Gutter		
	4m	RG4
	2m	RG2
Angle		
	90°	RA1
	135°	RA2
	any degree	RA9*







*FloPlast will fabricate any non-standard angle to special order





Product	Code	
Running Outlet - 68mm round		
		RO1
Stopend Outlet - 68mm round		
		RO2
Stopend		
	External	RE1
	Internal	RE2

Product	Code	
Fascia Bracket		
		RK1
Union Bracket		
		RU1
To Cast Iron Ogee gutter adaptors		
	R/H	RD3
	L/H	RD4
To Half Round Cast Iron gutter adaptors		
		RD5

68MM ROUND DOWNPIPE & FITTINGS BS EN 607:2004, BS 12200-1:2000, BS EN 1462:2004

Product	Code	
Pipe		
	2.5m	RP2.5
Offset Bend		
	92½°	RB8
	112½°	RB6
Shoe		
		RB4*
Pipe Clip		
		RC4*
Pipe Socket		
		RS2*
67½° Branch		
		RY1

Product	Code	
Access Pipe		
		RX1
Square/Round Downpipe Adaptor		
		RDS2
Universal Hopper		
	Connects to 65mm square & 68mm round downpipe	RH1
Ogee Hopper		
	Connects to 68mm round and 65mm square downpipes.	RH4*
Rectangular Hopper**		
	Connects to 68mm round and 65mm square downpipes.	RH5*
Cast Iron Fixings*		
		FC50
12 gauge x 50mm stainless steel fixings for "cast Iron" Range (socket fixings).		

Product	Code	
Fleur-de-Lis		
	40mm	FL55
	52mm	FL70
Tudor Rose		
	40mm	TR55
	52mm	TR70
Decorative Square		
	40mm	DS55
	52mm	DS70
Lion's Head		
	40mm	LH55
	52mm	LH70

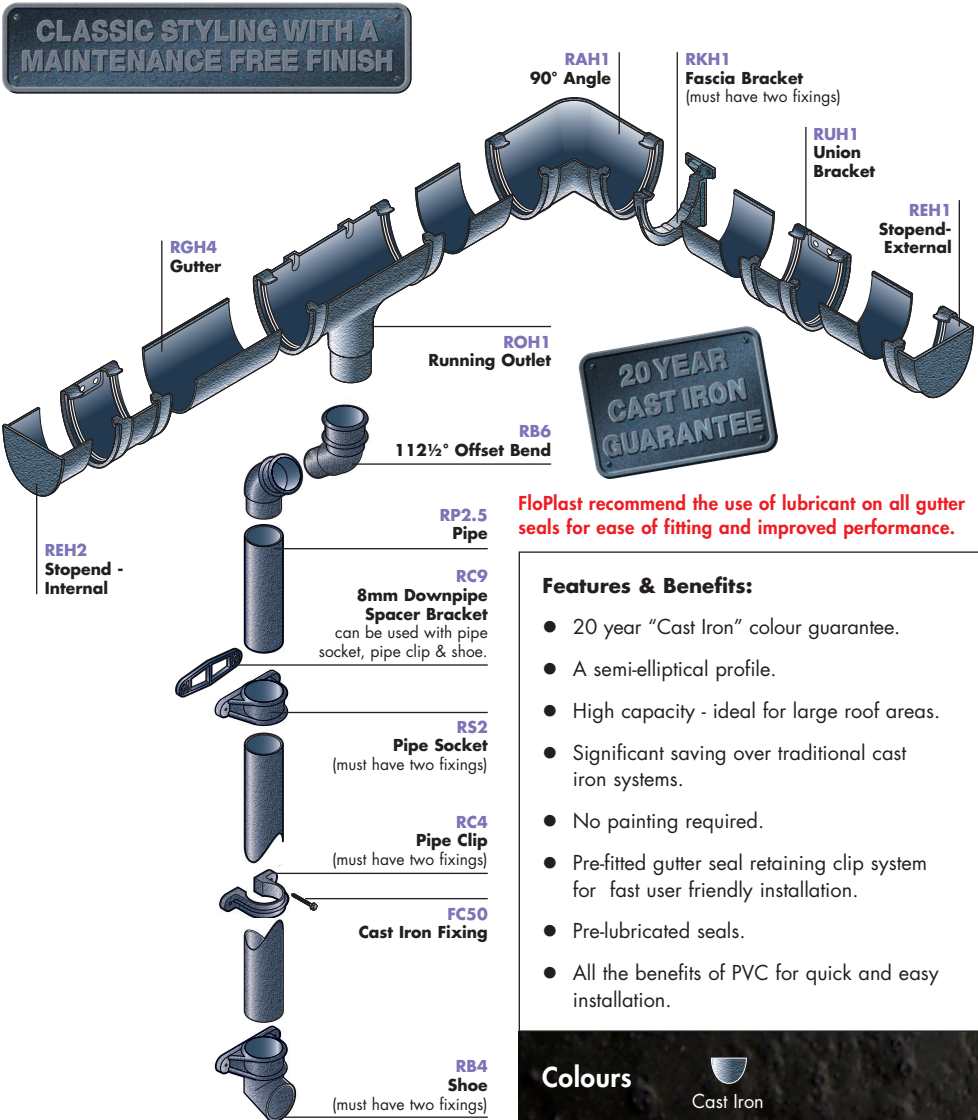
Motifs can be applied to hoppers or running outlets using a proprietary adhesive such as Siroflex MS Polymer.

** This product is rotationally moulded and subject to bowing along its length up to +/-4%.

*With fixing lugs (Requires 2 x FC50 fixings)

*Fixing instructions for the FC50 (Cast Iron fixing bolts)

The FC50 is a 12 gauge x 50mm Stainless Steel Bolt, that requires a 12mm, 12 point star head socket to tighten it. When using these fixings on Ogee and Rectangular Hoppers we recommend that a 3/4" top washer is used. When fixing product to concrete, brick, block etc fix FC50 in the same way as any other screw by using a plug type fixing, and into timber by pilot drilling a starter hole first.



Features & Benefits:

- 20 year "Cast Iron" colour guarantee.
- A semi-elliptical profile.
- High capacity - ideal for large roof areas.
- Significant saving over traditional cast iron systems.
- No painting required.
- Pre-fitted gutter seal retaining clip system for fast user friendly installation.
- Pre-lubricated seals.
- All the benefits of PVC for quick and easy installation.

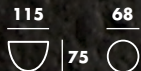
Colours



Code suffix

CI





Dimensions (mm)




115MM GUTTER & FITTINGS BS EN 607:2004, BS 12200-1:2000, BS EN 1462:2004

Gutter and pipe code reference numbers refer to length of run: 2.5 metres and 4 metres.

For Ancillaries and Spares see page 10.








Product	Code	
Gutter		
	4m	RGH4
Angle		
	90°	RAH1
	135°	RAH2
	any degree	RAH9 [#]







Product	Code	
Running Outlet - 68mm round		
		ROH1
Stopend		
	External	REH1
	Internal	REH2
Fascia Bracket		
		RKH1





Product	Code	
Union Bracket		
		RUH1

[#]FloPlast will fabricate any non-standard angle to special order

68MM ROUND DOWNPIPE & FITTINGS BS EN 607:2004, BS 12200-1:2000, BS EN 1462:2004

Product	Code	
Pipe		
	2.5m	RP2.5
Offset Bend		
	92½°	RB8
	112½°	RB6
Shoe		
		RB4 [#]
Pipe Clip		
		RC4 [#]
Pipe Socket		
		RS2 [#]
67½° Branch		
		RY1

Product	Code	
Access Pipe		
		RX1
Square/Round Downpipe Adaptor		
		RDS2
Universal Hopper		
	Connects to 65mm square & 68mm round downpipe	RH1
Ogee Hopper		
	Connects to 68mm round and 65mm square downpipes.	RH4 [#]
Rectangular Hopper**		
	Connects to 68mm round and 65mm square downpipes.	RH5 [#]
Cast Iron Fixings*		
		FC50
12 gauge x 50mm stainless steel fixings for "cast iron" Range (socket fixings).		

Product	Code	
Fleur-de-Lis		
	40mm 52mm	FL55 FL70
Tudor Rose		
	40mm 52mm	TR55 TR70
Decorative Square		
	40mm 52mm	DS55 DS70
Lion's Head		
	40mm 52mm	LH55 LH70

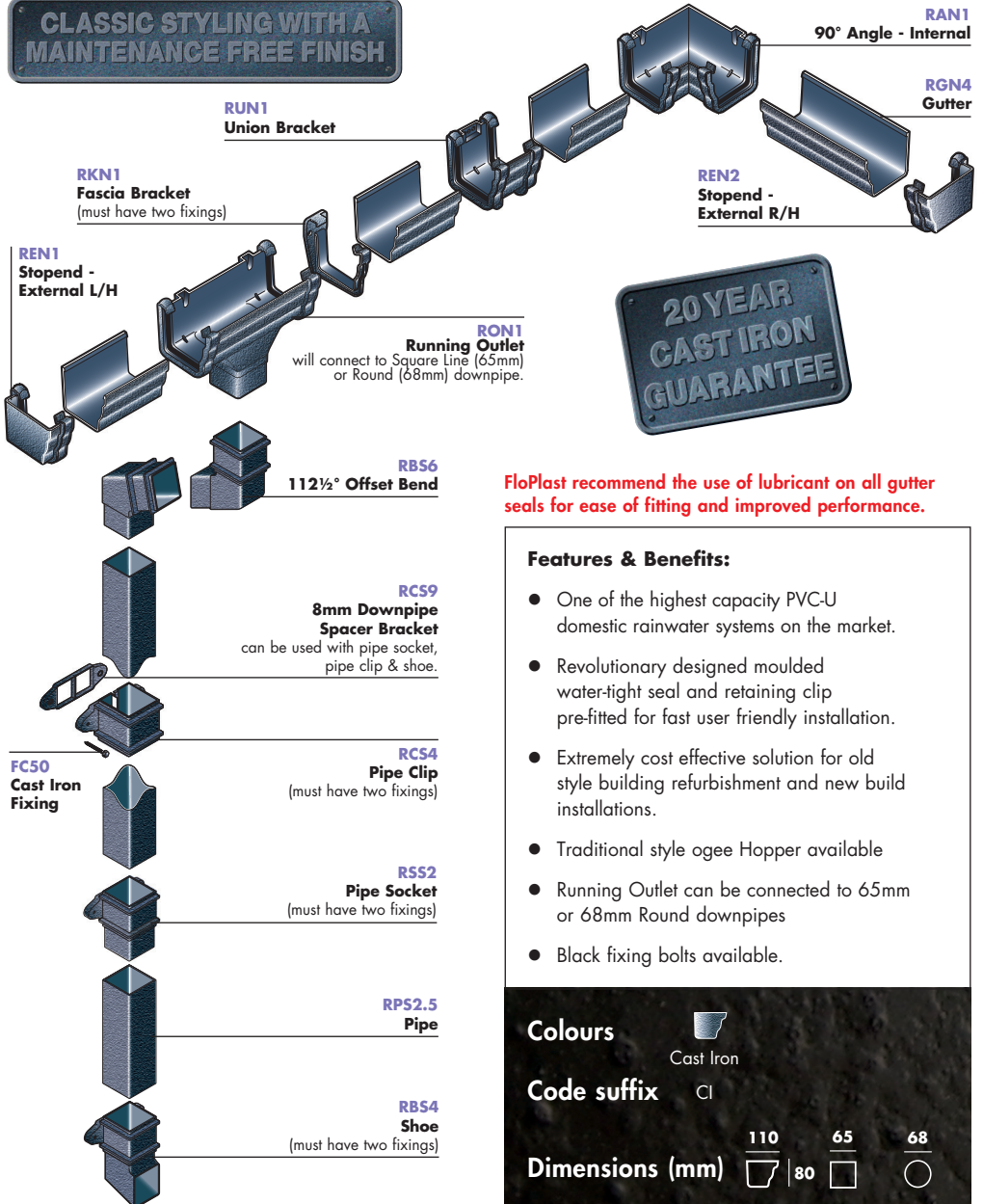
Motifs can be applied to hoppers or running outlets using a proprietary adhesive such as Siroflex MS Polymer.
** This product is rotationally moulded and subject to bowing along its length up to +/-4%.

*With fixing lugs (Requires 2 x FC50 fixings)

*Fixing instructions for the FC50 (Cast Iron fixing bolts)

The FC50 is a 12 gauge x 50mm Stainless Steel Bolt, that requires a 12mm, 12 point star head socket to tighten it. When using these fixings on Ogee and Rectangular Hoppers we recommend that a 3/4" tap washer is used. When fixing product to concrete, brick, block etc fix FC50 in the same way as any other screw by using a plug type fixing, and into timber by pilot drilling a starter hole first.






CLASSIC STYLING WITH A MAINTENANCE FREE FINISH













110MM GUTTER & FITTINGS BS EN 607:2004, BS 12200-1:2000, BS EN 1462:2004

Gutter and pipe code reference numbers refer to length of run: 2.5 metres, 3 metres and 4 metres.








For Ancillaries and Spares see page 10.






Product	Code
Gutter	
	4m RGN4 3m RGN3
90° Angle	
	Internal RAN1
	External RAN2
135° Angle	
	Internal RAN3
	External RAN4

Product	Code
Angle - Any Degree	
	RAN9#
Running Outlet - Multi Outlet	
	RON1
Stopend Outlet - 65mm	
	L/H RON2
	R/H RON3
Union Bracket	
	RUN1

Product	Code
Stopend - External	
	L/H REN1
	R/H REN2
Stopend - Internal	
	L/H REN3
	R/H REN4
Fascia Bracket	
	RKN1

65MM SQUARE DOWNPIPE & FITTINGS BS EN 607:2004, BS 12200-1:2000, BS EN 1462:2004

Product	Code
Pipe 2.5m	
	RPS2.5
Offset Bend	
	92½° RBS8
	112½° RBS6
Shoe	
	RBS4#
Pipe Clip	
	RCS4#
Pipe Socket	
	RSS2#
67½° Branch	
	RYS2

Product	Code
Square/Round Downpipe Adaptor	
	RDS2
Universal Hopper	
	Connects to 65mm square & 68mm round downpipe RH1
Ogee Hopper	
	Connects to 68mm round and 65mm square downpipes. RH4#
Rectangular Hopper**	
	Connects to 68mm round and 65mm square downpipes. RH5#
Cast Iron Fixings*	
	FC50
12 gauge x 50mm stainless steel fixings for "cast Iron" Range (socket fixings).	

Product	Code
Fleur-de-Lis	
	40mm FL55 52mm FL70
Tudor Rose	
	40mm TR55 52mm TR70
Decorative Square	
	40mm DS55 52mm DS70
Lion's Head	
	40mm LH55 52mm LH70

Motifs can be applied to hoppers or running outlets using a proprietary adhesive such as Siroflex MS Polymer.

** This product is rotationally moulded and subject to bowing along its length up to +/-4%.

Please note: Round downpipe can also be used, please see page 5 and 7.




















***Fixing instructions for the FC50 (Cast Iron fixing bolts)**
The FC50 is a 12 gauge x 50mm Stainless Steel Bolt, that requires a12mm, 12 point star head socket to tighten it. When using these fixings on Ogee and Rectangular Hoppers we recommend that a 3/4" tap washer is used. When fixing product to concrete, brick, block etc fix FC50 in the same way as any other screw by using a plug type fixing, and into timber by pilot drilling a starter hole first.

- Traditional look.
- No painting required.
- Lightweight and resilient material.
- Corrosion free.
- Hoppers available in three different styles.
- Motifs available in 4 different styles to enhance hoppers.

***Fixing instructions for the FC50 (Cast Iron fixing bolts)**
 The FC50 is a 12 gauge x 50mm Stainless Steel Bolt, that requires a 12mm, 12 point star head socket to tighten it. When using these fixings on Ogee and Rectangular Hoppers we recommend that a 3/4" tap washer is used. When fixing product to concrete, brick, block etc fix FC50 in the same way as any other screw by using a plug type fixing, and into timber by pilot drilling a starter hole first.

Product	Code
Universal Hopper	
	RH1
Connects to 65mm square & 68mm round downpipes.	
Ogee Hopper	
	RH4
Requires 2 x FC50 fixings per fitting. Connects to 68mm round and 65mm square downpipes.	
Rectangular Hopper	
	RH5
Requires 2 x FC50 fixings per fitting. Connects to 68mm round and 65mm square downpipes. This product is rotationally moulded and subject to bowing along its length up to +/-4%.	

ANCILLARIES AND SPARES

Product	Code	Product	Code	Product	Code
Universal Rainwater Adaptor		Balloon: Leaf Protection System		40ml Compressed Silicone Lubricant Spray	
 Connects to 110mm drainage	D96	 (Outlet Guard)	OG1		SL40
Universal Rise & Fall Bracket		DrainGuard (Black)		Spare Gutter Seals	
	RF1	 Fits round and square downpipe	DG1	 Round	RRS1
Rafter Bracket Top Fix		Snow/Tile Guard - 2m		 Niagara	RRNS1
	RR1	 Snow / Tile Guard Bracket	SG1	 Hi-Cap	RRHS1
Rafter Bracket Side Fix		8mm Universal Fascia Bracket Spacer		Spare Gutter Clips	
	RR2	 8mm Universal Fascia Bracket Spacer	RS9	 Round	RRC1
GutterBrush (black)		(Black/white only) Suitable for Half Round, Square Line, Niagara Ogee and Hi-Cap gutters only	RS9	 Niagara	RRNC1
 Debris eliminator (4m)	GB4	8mm Downpipe Spacer Brackets		 Hi-Cap	RRHC1
NEW GutterBrush (white)		Only use with RS2, RC4 & RB4 (Black/white only)	RC9	Cast Iron Fixings	
 Debris eliminator (4m)	GB4	For use with 68mm Round downpipe			FC50
FloGuard: Leaf Protection System 5m Pack		Only use with RS2, RCS4 & RBS4 (Black/white only)	RCS9	12 gauge x 50mm stainless steel fixings for "cast Iron" Range (socket fixings).	
	FG1	For use with 65mm Square downpipe			

PRODUCT FEATURES

92½ Offset Bends

- Available in both round and square fittings.
- Allows offset to be tighter under the soffit.
- Aids the installation of downpipes in awkward or restricted areas i.e around corners of buildings.
- Produces a compact installation.
- Lightweight and resilient material.



Rainwater Diverter

- Saving water.
- Saving the environment.
- Saving money.
- Easy to fit.
- Prevents excess overflow from the butt; designed to bypass the diverter and continue down the pipe.
- Fits 65mm Square and 68mm PVC-U Rainwater pipes.



Universal Hopper

- Modern design.
- Larger capacity.
- Can be enhanced with "Cast Iron" Style Motifs to give that period feel.
- Corrosion free.



Applications

FloPlast Rainwater Systems are suitable for all applications and types of building, including domestic, commercial and industrial.

Composition

All products are manufactured from unplasticised polyvinyl chloride (PVC-U) and comply with the material requirements of either BS EN 12200-1:2000, BS EN 607:2004 or BS EN 1462:2004 as relevant.

Rainwater gutters and pipes are manufactured by a continuous extrusion process. Fittings are produced on high-pressure injection moulding machines. All fittings are manufactured to close tolerances allowing accurate incorporation of design features.

Accreditation

All of our profiles are manufactured to BS EN 607:2004 (Gutters and fittings), BS EN 12200-1:2000 & BS EN 1329-1:2000 (Downpipes and fittings), BS EN 1462:2004 (Gutter brackets) within a quality management system assessed and registered by British Standards as meeting the requirements of BS EN ISO 9001:2000 (Certificate Number FM:501414).

Supply

Products are available from a national network of distributors and stockists. For details of your local stockist contact our Sales Office on 01795 421422.

Specification, Technical Advice and Design Guidance

A free advisory service is available to offer technical assistance regarding product and installation details. Those involved with the building industry may take advantage of design services provided by the company for customers who have made a commitment to use or specify FloPlast products.

Installation

1. Plan your installation using the component diagrams to assist you in selecting the correct type and quantity of products required.
 - Fascia brackets should be spaced at a maximum of one metre apart on straight gutter runs. (800mm in the case of the Niagara system, 600mm in the case of the Xtraflo system). When using 80mm Round Downpipe with Hi-Cap and Niagara Systems, fascia brackets should be spaced at a maximum of 800mm intervals. In areas where there is the possibility of high levels of snowfall, fascia brackets should be spaced at a maximum of 400mm centres.
 - Angles and stopends should have a fascia bracket within 150mm of the fitting.
 - A supporting pipe clip should be used on shoes, branches and bends where necessary.
 - Support downpipes below offset and at maximum intervals of 1.8 metres.
2. Where necessary remove the old gutter and replace old fascia board with FloPlast low maintenance PVC-UE co-extruded fascia board.
3. Establish the position of the running outlet, usually over an existing drain, and fix securely to fascia board.
4. Fix a fascia bracket 100mm short of furthest point from the outlet. Allow for a fall to the outlet (1:350 is recommended) using a string line.
5. Fixings:
 - Fix fascia and union brackets at required intervals.
 - Fascia brackets should be positioned so as to avoid the fixing screws splitting the top edge of any timber fascia board. All brackets should be secured to the fascia board with two 25mm x 5mm (1" x 10) screws.
 - Unions should be fixed using two 25mm x 5mm (1" x 10) screws.
 - Outlets and angles should be fixed using two 25mm x 5mm (1" x 10) screws where possible.
 - Rainwater downpipe clips, sockets, shoes and hoppers should be fixed using two x FC50

fixings. The FC50 is a 12 gauge x 50mm Stainless Steel bolt, that requires 12mm, 12 point star head socket to tighten it. When using these fixings to attach the Ogee and Rectangular Hopper we advise that a 3/4" tap washer is used. It is attached to concrete, brick, block etc in the same way as any other screw by using a plug type fixing, and into timber by pilot drilling a starter hole first.

6. Lubricate all gutter seals with FloPlast silicone spray lubricant to ensure an easy fit and to allow for movement caused by expansion and contraction.
7. Working from the running outlet insert the back edge of the gutter under the retaining lip of the wrap around clip. Using slight downward pressure on the gutter, snap the front edge of the retaining clip over the front of the gutter. (Ensure that the marked expansion allowance is kept.)
8. Use a union bracket or angle to join to next gutter length in order to build up a gutter run. Use a spend to complete the run.
9. Downpipe installation starts at the outlet. If an offset is required use two offset bends with or without a short piece of pipe. Ensure a 6mm gap is left at the top of the downpipe for expansion.

Capacity of Drainage

To select the gutter size appropriate to your requirements, two factors must be taken into consideration.

- Roof Area
- Gutter Flow Capacity

Snow loading statement: In areas of high snow risk, FloPlast strongly recommend using Snow Guard; this will assist in the slow release of melting snow into gutters and prevent snow slippage which is particularly prevalent where slate style tiles are installed. Please see page 5 or visit www.floplast.co.uk.



Carrying Capacities for Gutter

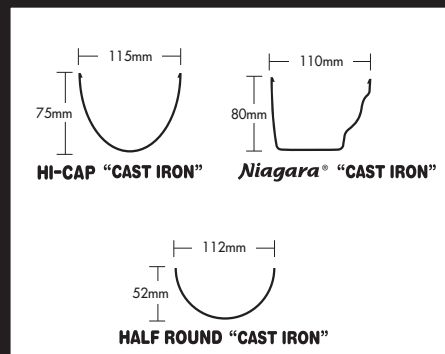
The carrying capacity of gutters varies under differing conditions. The main variables are whether or not the gutter is fitted to a fall and whether the outlet is placed in the centre or at one end of the gutter run.

Gutter flow rates will vary according to the type and configuration of downpipe system being used, however downpipe sizing is not a normal design consideration, as the downpipe systems manufactured by FloPlast have flow capacities approximately ten times greater than the gutter systems they drain.

The carrying capacities in litres per second for gutters, taking into account the major variables, are specified in the performance table on page 26 of our PVC-U Rainwater Systems brochure.

Design Data

All gutter dimensions are nominal.



Pipe Dimensions	Normal Size	Actual OD
Circular	68mm (2½")	68.48mm
Square	68mm (2½")	65mm

For more information on design factors, expansion tests, roof area calculating and flow rates, please see our current PVC-U Rainwater Systems brochure or visit our website at www.floplast.co.uk

“CAST IRON” RING SEAL SOIL SYSTEM PVC-U

- All sockets come complete with a “Cast Iron” Style socket shroud.
- “Cast Iron” Style PVC-U System manufactured to BS EN 1329 - 1:2000, BS 4514:2001.
- Traditional 1.8 metre length plain ended pipe.
- Pipe clips also replicate the authentic cast iron style.
- Strap on boss.
- Complements FloPlast’s extremely successful Half Round, Hi-Cap and Niagara “Cast Iron” Style Rainwater Systems.



Product	Code
1.8m Pipe - Plain Ended - 110mm	SP9
110mm Pipe Coupling (Requires 2 x FC65 fixings)	SP115
Pipe Clip (Requires 2 x FC65 fixings)	SP84
8mm Pipe Spacer Bracket	SP89
92½° (87½°) Bend (Socket/spigot)	SP161*
135° (45°) Bend (Socket/spigot)	SP163*
92½° (87½°) Bend (Double socket)	SP561*
135° (45°) Bend (Double/spigot)	SP563*
92½° (87½°) Double Branch	SP230*
92½° (87½°) Branch	SP190*
92½° (87½°) Branch (Without side bosses)	SP192*
92½° (87½°) Access bend	SP169*

Product	Code
Access Pipe (Socket/spigot)	
	SP274*
Boss Pipe (Socket/spigot)	
	SP581*
Strap Boss	
	SP319
Cast Iron Fixings**	
	FC65##
110mm Vent Terminal	
	SP302
110mm Weathering Collar	
	SP300
500x600mm Weathering Slate	
	SP320
Flexible Coupling 98-115mm	
	D102
Boss Adaptor - Rubber Push - Fit	
	32mm SP10 40mm SP11 50mm SP12
40ml Compressed Silicone Lubricant Spray	
	SL40
800gm Lubricant Gel	
	SG800
100gm Silicone Grease	
	SG100

Fixing Guide

Install and test system in accordance with BS EN 1610:1998.

- Commence the stack from the base and work up. Mark the position of brackets and drill and fix screws before erecting the stack.
- Fix pipe or socket brackets at maximum 1.8m centres vertical and at maximum 1m centres horizontal.
- An allowance for expansion should be made by withdrawing all pipe and fitting spigots from sockets by 10mm.
- The Double Socket Coupling (SP115) and Pipe Clip (SP84) should be fixed using 2 x FC65 fixings. The FC65 is a 12 gauge x 65mm Stainless Steel bolt, that requires 12mm, 12 point star head socket to tighten it.
- The use of silicone lubricant on all seals will facilitate jointing.
- The system should incorporate suitable access points to enable testing and maintenance of the system.



Other systems available:

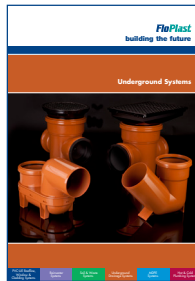
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KM 501316



KM 512474



KM 544331



KM 548614



KM 36801



KM 563461



KM 544332



KM 563460



KM 572704



KM 563462



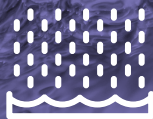
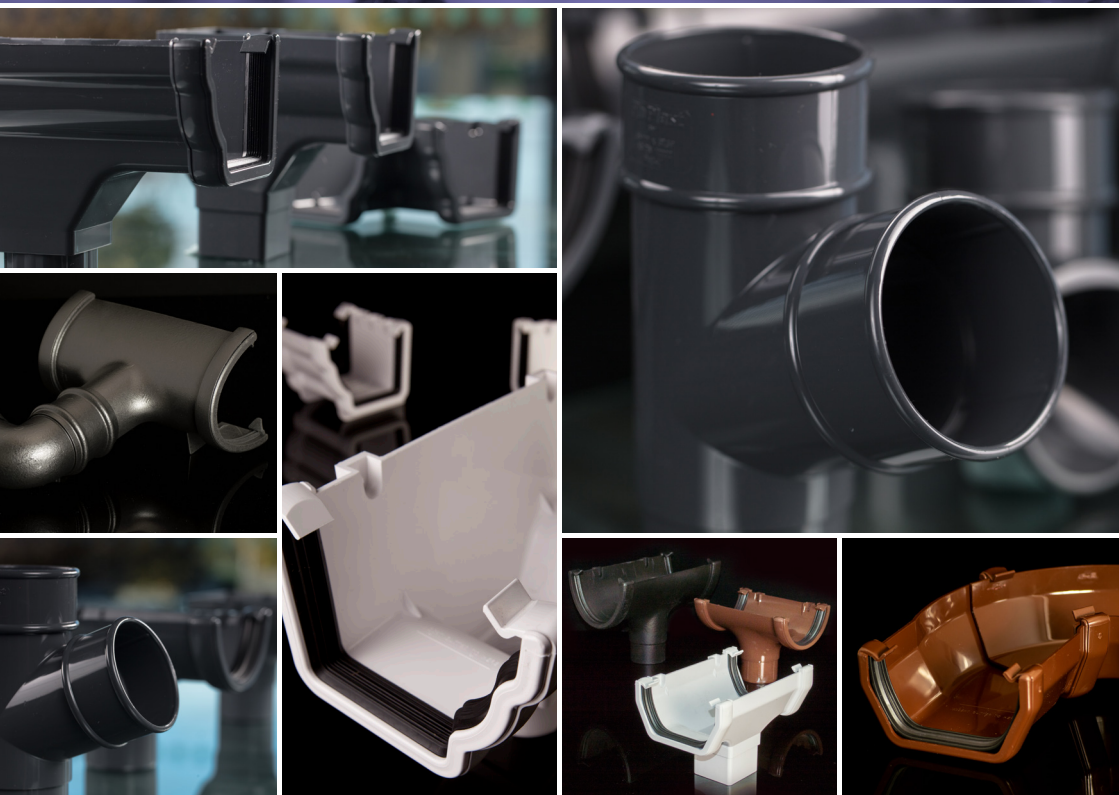
4/08/15



www.floplast.co.uk

FloPlast
building the future

Rainwater Systems



www.floplast.co.uk



Introduction to Rainwater Systems

FloPlast, a name synonymous with high quality PVC-U roofline products for new build and home improvement projects, with its wide range of rainwater systems.

FloPlast Rainwater Systems offer a wide choice of profile design, both traditional and modern, in a range of colours to suit all tastes and applications.

The **FloPlast** reputation for technical excellence, competitively priced and quality finished products have established the company as a leading supplier of PVC-U plastic building products.

Standards/Quality Control

FloPlast operations embrace Quality, Environment and Energy Management Systems which have been accredited by BSI to:

- BS EN ISO 9001 Certificate No. FM 501414
- BS EN ISO 14001 Certificate No. EMS 538445
- BS EN ISO 45001 Certificate No. OHS 593622
- ISO 50001 Certificate No. ENMS 638370

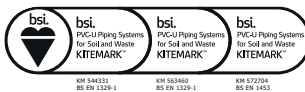


All products are subject to continuous quality control procedures and products manufactured to British Standard Specifications are marked accordingly.

All products comply with the material requirements of:

- BS EN 12200-1 and BS EN 1329-1
- BS 1453-1 (downpipes and fittings)
- BS EN 607 (gutters and fittings)
- BS EN 1462 (eaves brackets)

FloPlast Rainwater Systems have been awarded the prestigious BSI Kitemark (KM 501316) (excluding MiniFlo and "Cast Iron" Style).



Product Guarantees

FloPlast Rainwater Systems benefit from a 10 Year Performance and Colour Guarantee on the black, white, brown, grey and anthracite ranges and 20 years for the "Cast Iron" style systems.

Register Guarantee Online - www.floplast.co.uk





Features and Benefits

- Suitable for all types of buildings including domestic, commercial and industrial.
- Components have a consistent finish and colour and are low maintenance.
- Tough and durable, yet lightweight for ease of installation, they will withstand normal ladder weight.
- High gloss finish with blemish free surface, providing excellent all round weathering and colour fastness.
- Comprehensive range of systems, colours and fittings to provide solutions to all installation requirements.
- Cost effective solution to rainwater collection and drainage.
- Well defined stylish contours ensure a seamless match with the architecture of all properties, new or old.

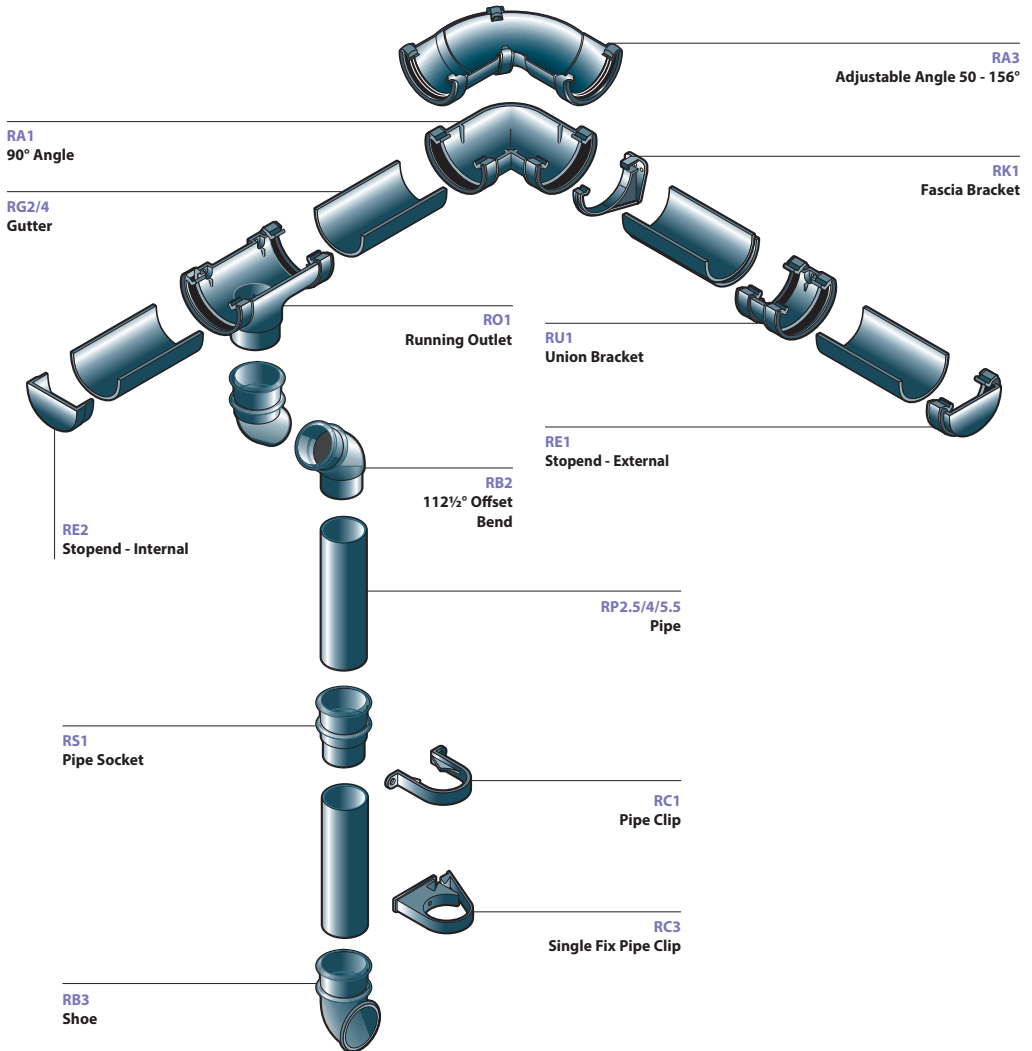
Specification, Technical Advice and Design

An advisory service is available to offer technical assistance regarding product selection and installation. Those associated with the building industry can take advantage of design services provided by the company for customers who have made a commitment to use or specify FloPlast products.

- Wrap around retaining clip on the majority of gutter fittings allows a fast positive joint to be made. Clips are easily removed should any adjustments be required during installation of the gutter system, making the system very user friendly. It also facilitates dismantling and re-assembly of the gutter system during any period of property maintenance.
- Extended gutter unions, with extra wide seals designed to eliminate the “roll-over” effect from gutter movement from thermal expansion and contraction, whilst still maintaining a watertight seal.
- All gutter fittings have positioning guide marks to allow for thermal expansion and contraction.
- Hoppers, running and stopend outlets are designed to accept sockets or plain-ended downpipe.
- Running and stopend outlets have twin fixing holes and fascia brackets offer a choice of single or twin-screw fixing.



Half Round 112mm/68mm Rainwater System



FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

RAINWATER SYSTEMS



Half Round 112mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462



Colour











Dimensions





Features & Benefits:

- The original Half Round profile.
- A practical, easy to install system.
- Good flow capacity.
- Pre-fitted gutter seal retaining clip system for fast, user friendly installation.
- Cost effective solution for both new build and refurbishment applications.
- Connects to most other systems, using our extensive range of adaptors.

Product	Colour	Code
Gutter 	2m 	RG2
	3m 	RG3
	4m 	RG4

Product	Colour	Code
Angle 	90° 	RA1
	135° 	RA2





Product	Colour	Code
Adjustable Angle 50° - 156° 		RA3

Product	Colour	Code
Angle - Any Degree 		RA9


FloPlast will fabricate any non-standard angle to special order.





Product	Colour	Code
Running Outlet 		RO1

Product	Colour	Code
Stopend Outlet 		RO2

Product	Colour	Code
Stopend 	External 	RE1
	Internal 	RE2

Product	Colour	Code
Fascia Bracket 		RK1

Product	Colour	Code
Union Bracket 		RU1

Product	Colour	Code
To Cast Iron Ogee Gutter Adaptors 	R/H 	RD3
	L/H 	RD4

Product	Colour	Code
To Half Round Cast Iron Adaptor 		RD5

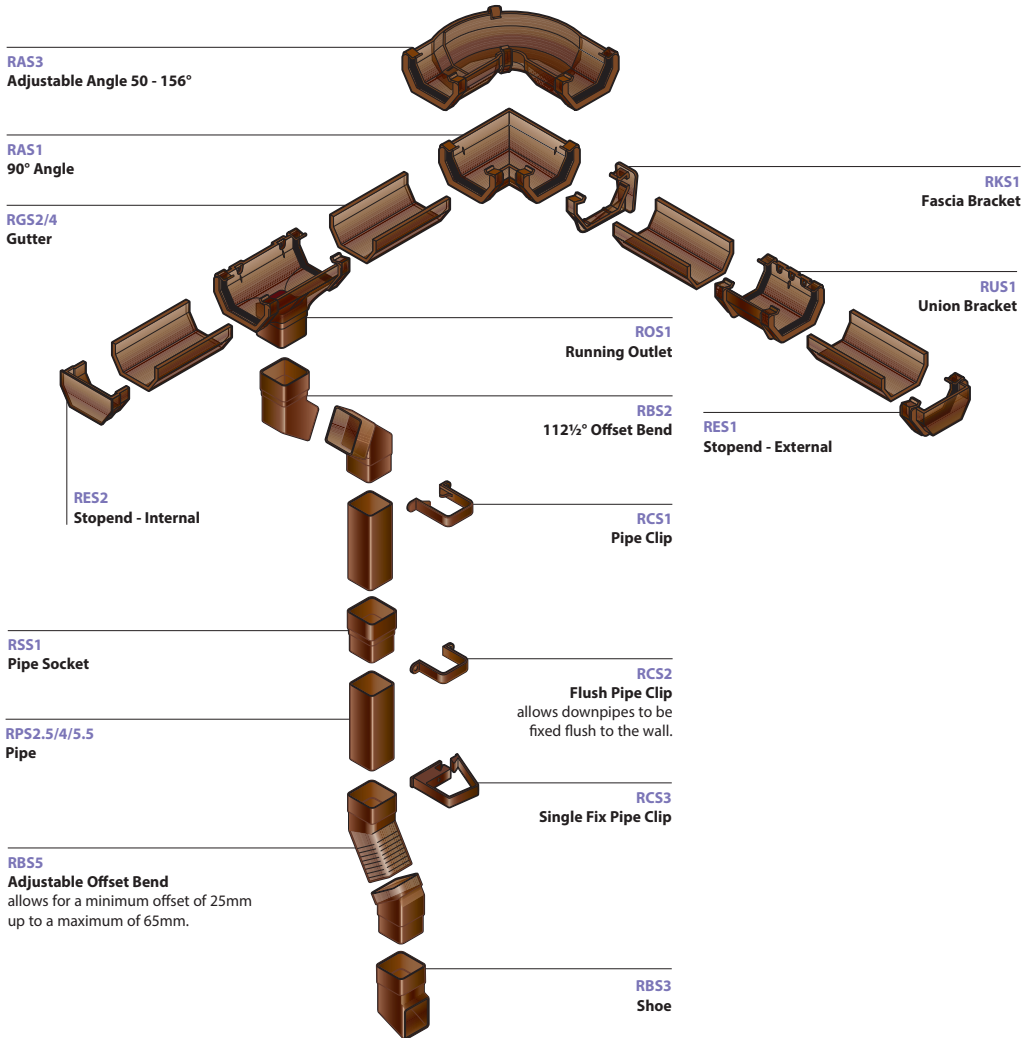
For 68mm Round Downpipe see page 12.

CI For "Cast Iron" Style see page 20

Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey



Square Line 114mm/65mm Rainwater System



FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

RAINWATER SYSTEMS



Square Line 114mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462



bsi.
PVC-U eaves gutters
and fittings
KITEMARK®
EN 607:2006
BS EN 607

bsi.
Brackets for eaves
gutters
KITEMARK®
EN 902:2006
BS EN 1462

bsi.
PVC-U Rainwater
Plumbing Systems
KITEMARK®
EN 902:2006
BS EN 12200-1

Colour



Dimensions



Features & Benefits:

- Attractive rectilinear profile.
- Flow capacity in excess of Half Round.
- Pre-fitted gutter seal retaining clip system for fast user friendly installation.
- Cost effective solution for both new build and refurbishment applications.
- Connects to most other metal or plastic systems using our extensive range of adaptors.

Product	Colour	Code
---------	--------	------

Gutter		
	2m	B W BR RGS2
	3m	B W BR RGS3
	4m	B W BR AG RGS4

Angle		
	90°	B W BR AG RAS1
	135°	B W BR AG RAS2

Adjustable Angle 50° - 156°		
		B W BR RAS3

Angle - Any Degree		
		B W BR AG RAS9

FloPlast will fabricate any non-standard angle to special order.

Running Outlet		
		B W BR AG ROS1

Stopend Outlet		
		B W BR AG ROS2

Product	Colour	Code
---------	--------	------

Stopends		
	External	B W BR AG RES1
	Internal	B W BR AG RES2

Fascia Bracket		
		B W BR AG RKS1

Union Bracket		
		B W BR AG RUS1

Square/Round Gutter Adaptor		
		B W BR RDS1

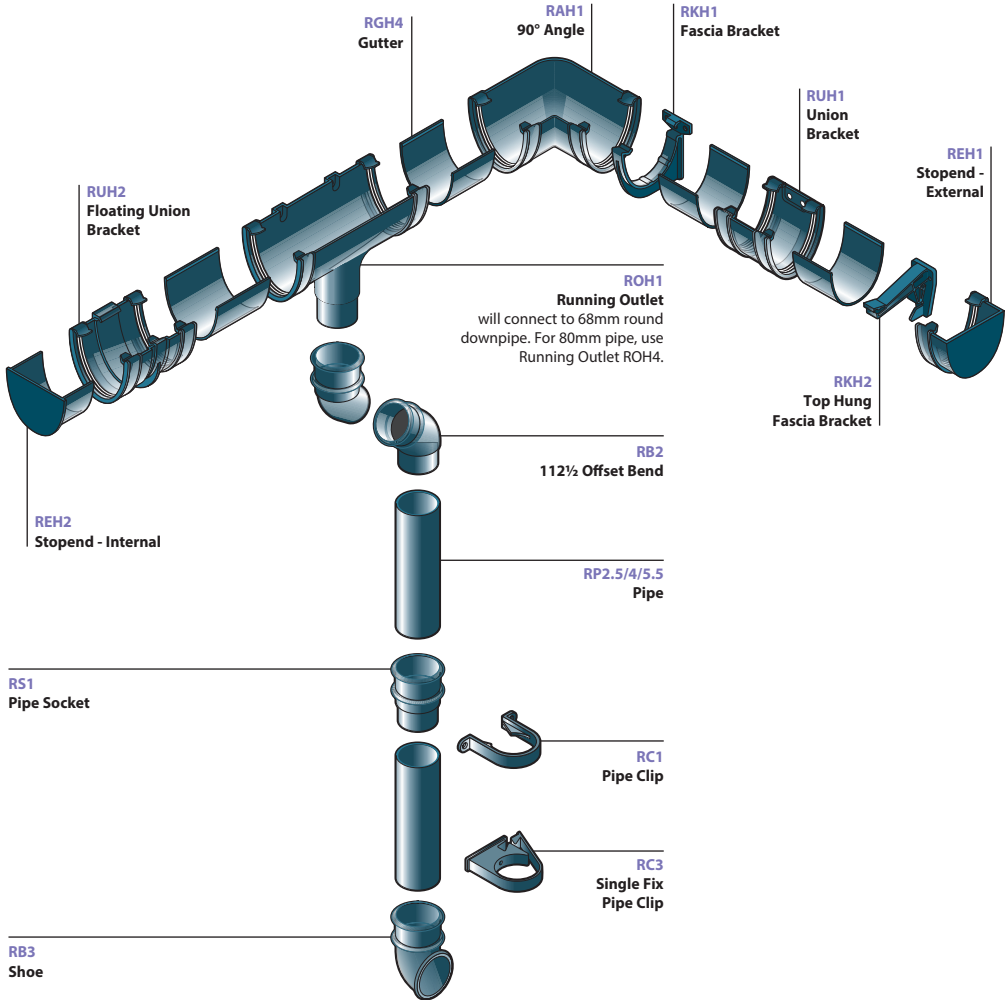
To Cast Iron Gutter Adaptors		
	0gee R/H	B W BR RDS3
	0gee L/H	B W BR RDS4
	Half Round	B W BR RDS5

For 65mm Square Downpipe see page 13.

Important when ordering: Please add colour reference to code: **B** Black **W** White **G** Grey **AG** Anthracite Grey



Hi-Cap 115mm/68mm/80mm Rainwater System



FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

RAINWATER SYSTEMS



Hi-Cap 115mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462



Colour

B **W** **BR**

G **AG**

Dimensions


115





Features & Benefits:

- A semi-elliptical profile.
- Pre-fitted gutter seal retaining clip system for fast user friendly installation.
- The high flow rate could result in less outlets and reduced drainage runs.
- Both 68mm and 80mm round downpipes can be connected to the gutter system.
- For an improved aesthetic gutter line when viewed from below, use RKH2 top hung bracket.

Product	Colour	Code
---------	--------	------

Gutter				
	4m	B W BR G AG	RGH4	

Angle			
-------	--	--	--



	90°	B W BR G AG	RAH1
	135°	B W BR G AG	RAH2

Angle - Any Degree			
--------------------	--	--	--

		B W BR G AG	RAH9
--	--	--	------

FloPlast will fabricate any non-standard angle to special order.



Running Outlet			
----------------	--	--	--

	68mm	B W BR G AG	ROH1
	80mm	B W BR G	ROH4



Stopend Outlet			
----------------	--	--	--

		B W BR G AG	ROH2
--	--	--	------

Product	Colour	Code
---------	--------	------

Stopend			
	External	B W BR G AG	REH1
	Internal	B W BR G AG	REH2

Fascia Bracket			
----------------	--	--	--

		B W BR G AG	RKH1
	Top Hung	B W	RKH2



Union Bracket			
---------------	--	--	--

		B W BR G AG	RUH1
--	--	--	------

Floating Union Bracket			
------------------------	--	--	--

		B W	RUH2
---	--	-------------------	------

Gutter Adaptors			
-----------------	--	--	--

	Half Round	B W BR	RHR3
	Square Line	B W BR	RHS3

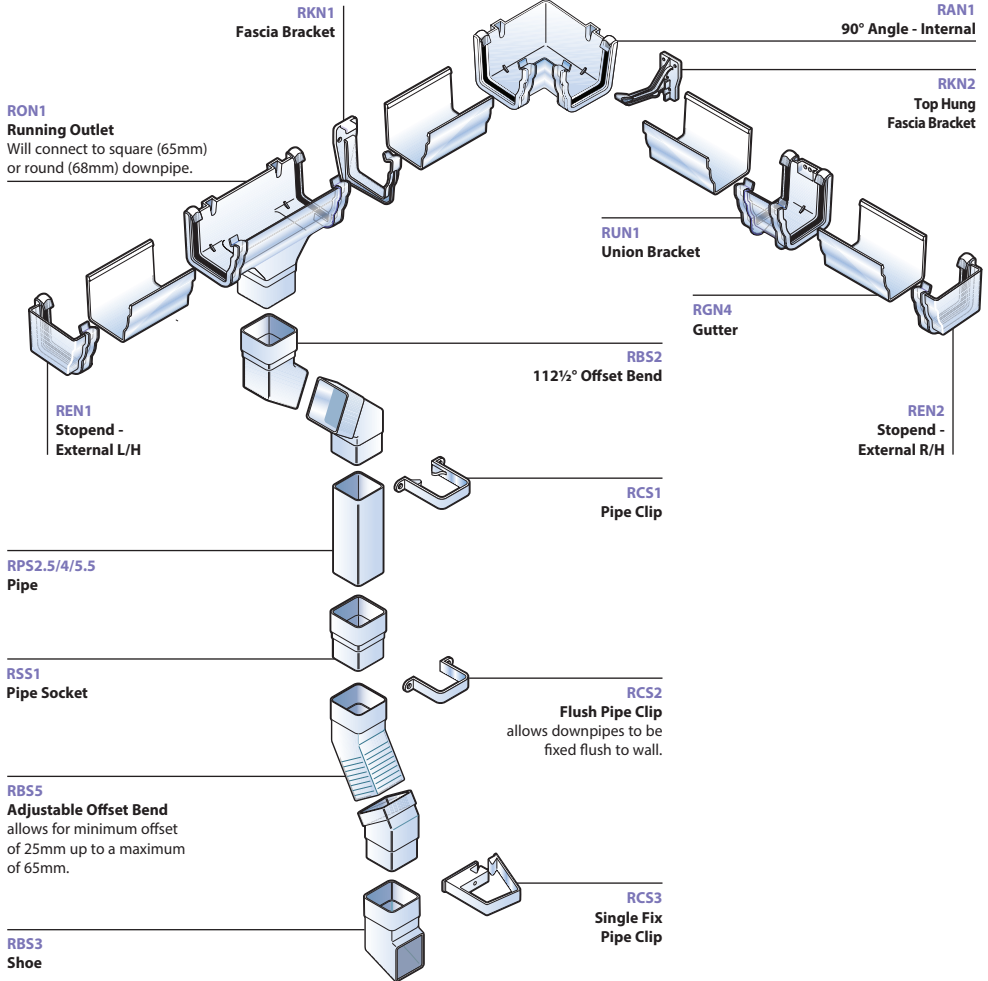
For 68mm Round Downpipe see page 12.

For 80mm Round Downpipe see page 14.

Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey



Niagara Ogee 110mm/65mm/68mm/80mm Rainwater System



FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

RAINWATER SYSTEMS



Niagara Ogee 110mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462



EN 502316
BS EN 607

EN 502316
BS EN 1462

EN 502316
BS EN 12200-1

Colour



Dimensions



Features & Benefits:

- A traditional ogee style profile.
- One of the highest capacity PVC-U domestic Rainwater Systems.
- Pre-fitted seal and retaining clip.
- Suitable for all properties, old and new.
- Can be connected to either 65mm square, 68mm and 80mm round downpipes.
- For an improved aesthetic gutter line when viewed from below, use RKN2 top hung bracket.

Product	Colour	Code
Gutter 	4m B W BR AG	RGN4
90° Angle 	Internal B W BR AG	RAN1
	External B W BR AG	RAN2
135° Angle 	Internal B W BR AG	RAN3
	External B W BR AG	RAN4
Angle - Any Degree 	B W BR	RAN9
FloPlast will fabricate any non-standard angle to special order.		
Running Outlet - Multi Fit - 65mm Square/68mm Round 	B W BR AG	RON1
Stopend Outlets - 65mm Square 	L/H B W BR AG	RON2
	R/H B W BR AG	RON3
Running Outlet - 80mm Round 	B W BR	RON4
Stopend Outlets - 80mm Round 	L/H B W BR	RON5
	R/H B W BR	RON6

Product	Colour	Code
External Stopends 	L/H B W BR AG	REN1
	R/H B W BR AG	REN2
Internal Stopends 	L/H B W BR AG	REN3
	R/H B W BR AG	REN4
Fascia Bracket 	B W BR AG	RKN1
	Top Hung B W BR	RKN2
Union Bracket 	B W BR	RUN1
Niagara to Half Round Gutter Adaptors 	R/H B W BR	RNR3
	L/H B W BR	RNR4
Niagara to Square Line Gutter Adaptors 	R/H B W BR	RNS3
	L/H B W BR	RNS4

For 68mm Round Downpipe see page 12.

For 65mm Square Downpipe see page 13.

For 80mm Round Downpipe see page 14.

CI For "Cast Iron" Style see page 24

Important when ordering: Please add colour reference to code: **B** Black **W** White **G** Grey **AG** Anthracite Grey

RAINWATER SYSTEMS



68mm Round Downpipe and Fittings Standard: BS EN 12200 - 1



BS EN 12200-1

Colour



Dimensions



Features & Benefits:

- Can be used with Half Round, Hi-Cap, Niagara and Square Line Rainwater Systems.
- Durable and lightweight.
- A practical, easy to install system.
- Cost effective.
- Easy to cut using a fine toothed saw.
- Suitable for new build and refurbishment applications.

Product	Colour	Code
---------	--------	------

Pipe			
	2.5m	B W BR G AG	RP2.5
	4m	B W BR G AG	RP4
	5.5m	B W BR G AG	RP5.5

Offset Bends

	92 $\frac{1}{2}$ °	B W BR G AG	RB1
	112 $\frac{1}{2}$ °	B W BR G AG	RB2

67 1/2° Branch

	B W BR G AG	RY1
--	--	-----

Shoes

	B W BR G AG	RB3
	B W	RB4 ¹

Pipe Sockets

	B W BR G AG	RS1
	B W	RS2 ³

Product	Colour	Code
---------	--------	------

Pipe Clips		
	B W BR G AG	RC1
	B W BR G	RC3
	B W	RC4 ²

Access Pipe

	B W BR G AG	RX1
--	--	-----

Hopper: Connects to 65mm square & 68mm round downpipe

	B W BR G AG	RHS1
--	--	------

¹ Must be used in conjunction with RC4 and RS2.

² Must be used in conjunction with RB4 and RS2.

³ Must be used in conjunction with RC4 and RB4.

Cl For "Cast Iron" Style see page 26

Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey

RAINWATER SYSTEMS



65mm Square Downpipe and Fittings

Standard: BS EN 12200 -1



EN 501334
BS EN 12200-1

Colour



Dimensions


65





Features & Benefits:

- Attractive square profile.
- Can be used with Squareline and Niagara Rainwater Systems.
- Durable and lightweight.
- A practical, easy to install system.
- Cost effective.
- Easy to cut using a fine toothed saw.
- Suitable for new build and refurbishment applications.



Product Colour Code

Product	Colour	Code
	2.5m	B W BR AG RPS2.5
	4m	B W BR AG RPS4
	5.5m	B W BR AG RPS5.5

Offset Bend

	92½°	B W BR AG RBS1
	112½°	B W BR AG RBS2



Shoe

		B W BR AG RBS3
	With fixing lugs	B W RBS4 ¹




Adjustable Offset Bend

		B W BR RBS5
--	--	----------------------------------

Pipe Sockets

		B W BR AG RSS1
	With fixing lugs	B W RSS2 ²

Product Colour Code

Product	Colour	Code
		B W BR AG RCS1
	Flush	B W BR RCS2
	Single Fix	B W BR RCS3
	With fixing lugs	B W RCS4 ³

Sq/Rd Downpipe Adaptor: Connects to 68mm round downpipe

		B W BR AG RDS2
--	--	--

67½° Branch

		B W BR AG RYS1
---	--	--

Square Access Pipe

		B W BR AG RXS1
---	---	--

Hopper: Connects to 65mm square & 68mm round downpipe

		B W BR AG RHS1
---	--	--

¹ RBS1 must be used in conjunction with RCS4 and RSS2.

² RSS2 must be used in conjunction with RCS4 and RBS4.

³ RCS4 must be used in conjunction with RBS4 and RSS2.

CI For "Cast Iron" Style see page 27

Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey

RAINWATER SYSTEMS



80mm Round Downpipe and Fittings Standard: BS EN 12200 -1



BS 50334
BS EN 12200-1

Colour











Dimensions



Features & Benefits:

- Large round profile.
- Can be used with Hi-Cap and Niagara Rainwater Systems.
- Durable and lightweight.
- A practical, easy to install system.
- Cost effective.
- Easy to cut using a fine toothed saw.
- Suitable for new build and refurbishment applications.

Product	Colour	Code
Pipe		
	4m	B W BR G RPH4
Offset Bend		
	92½°	B W BR G RBH1
	112½°	B W BR G RBH2
Shoe		
		B W BR G RBH3
Pipe Clip		
	Single Fix	B W BR G RCH3
67½° Branch		
		B W BR G RYH1
Pipe Socket		
		B W BR G RSH1
80mm Rainwater Adaptor: Connects 110mm Drainage		
		B D97






Product	Colour	Code
Hopper		
		B W BR G RHH1



Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey









Spares Gutter Clips

Product	Colour	Code
Half Round Gutter Clip		
	B W BR G AG CI	RRC1
Square Line Gutter Clip		
	B W BR AG	RRSC1
Hi-Cap Gutter Clip		
	B W BR G AG CI	RRHC1
Niagara Ogee Gutter Clip		
	B W BR AG CI	RRNC1
XtraFlo Gutter Clip		
	B W G	RRXC1



Spares Gutter Seals

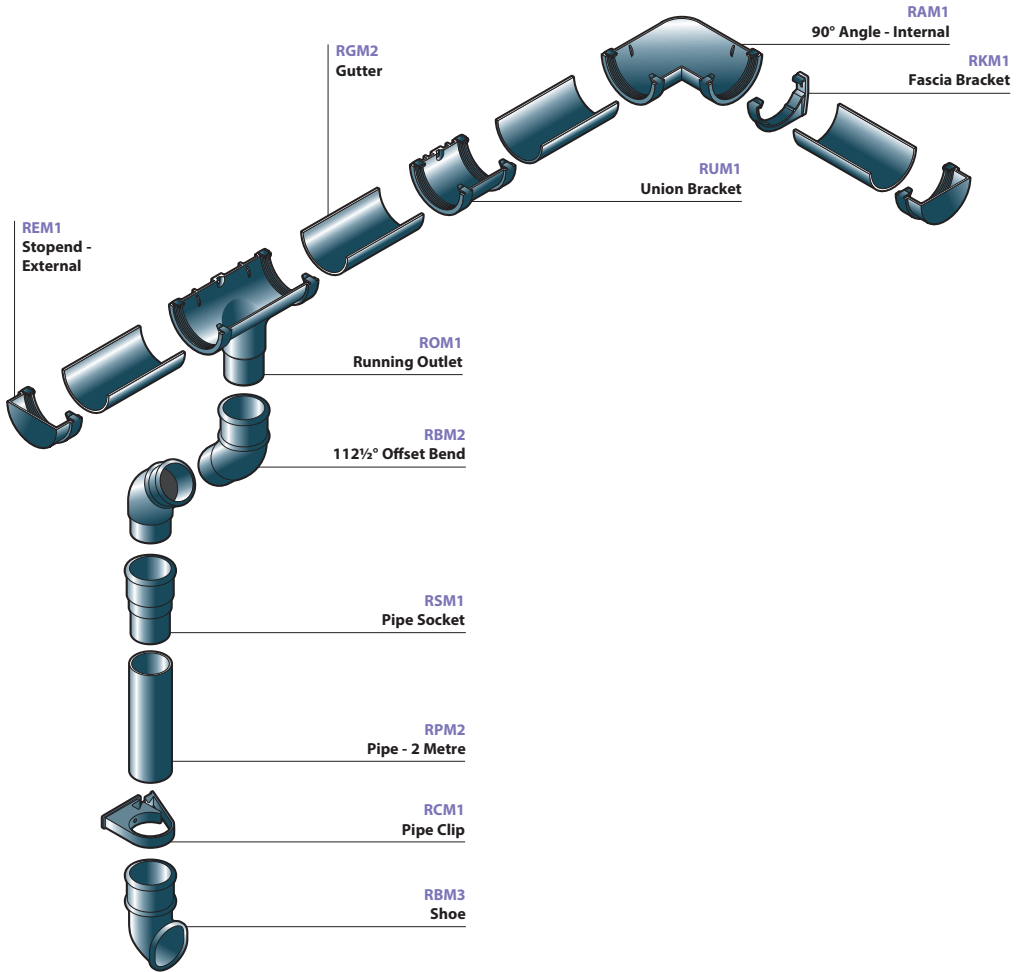
Product	Code
Half Round Gutter Seal	
	RRS1
Square Line Gutter Seal	
	RRSS1
Hi-Cap Gutter Seal	
	RRHS1

Product	Code
Niagara Ogee Gutter Seal	
	RRNS1
MiniFlo Gutter Seal	
	RRMS1
XtraFlo Gutter Seal	
	RRXS1

Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey **CI** "Cast Iron" Style



MiniFlo 76mm/50mm Rainwater System



FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

RAINWATER SYSTEMS



MiniFlo 76mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour



Dimensions



Features & Benefits:

- A smaller system based on the original Half Round profile.
- An ideal solution for garages, sheds, summer houses and most garden buildings.
- Pre-fitted gutter seal retaining clip system for fast user-friendly installation.
- A practical, easy to install system.

Product Colour Code

Product	Colour	Code
Gutter		RGM2
	2m	

Product	Colour	Code
Angle		RAM1
	90°	

Product	Colour	Code
	135°	RAM2

Product	Colour	Code
Running Outlet		ROM1

Product Colour Code

Product	Colour	Code
Stopend Outlet		ROM2

Product	Colour	Code
Stopend		REM1

Product	Colour	Code
Fascia Bracket		RKM1

Product Colour Code

Product	Colour	Code
Union Bracket		RUM1

Product	Colour	Code
Half Shed Pack - Black Only		MS1

50mm Round Downpipe and Fittings Standard: BS EN 12200 -1

Product Colour Code

Product	Colour	Code
Pipe		RPM2
	2m	

Product	Colour	Code
Offset Bend 92½°		RBM1

Product	Colour	Code
Offset Bend 112½°		RBM2

Product Colour Code

Product	Colour	Code
Shoe		RBM3

Product	Colour	Code
67½° Branch		RYM1

Product	Colour	Code
Pipe Clip		RCM1

Product Colour Code

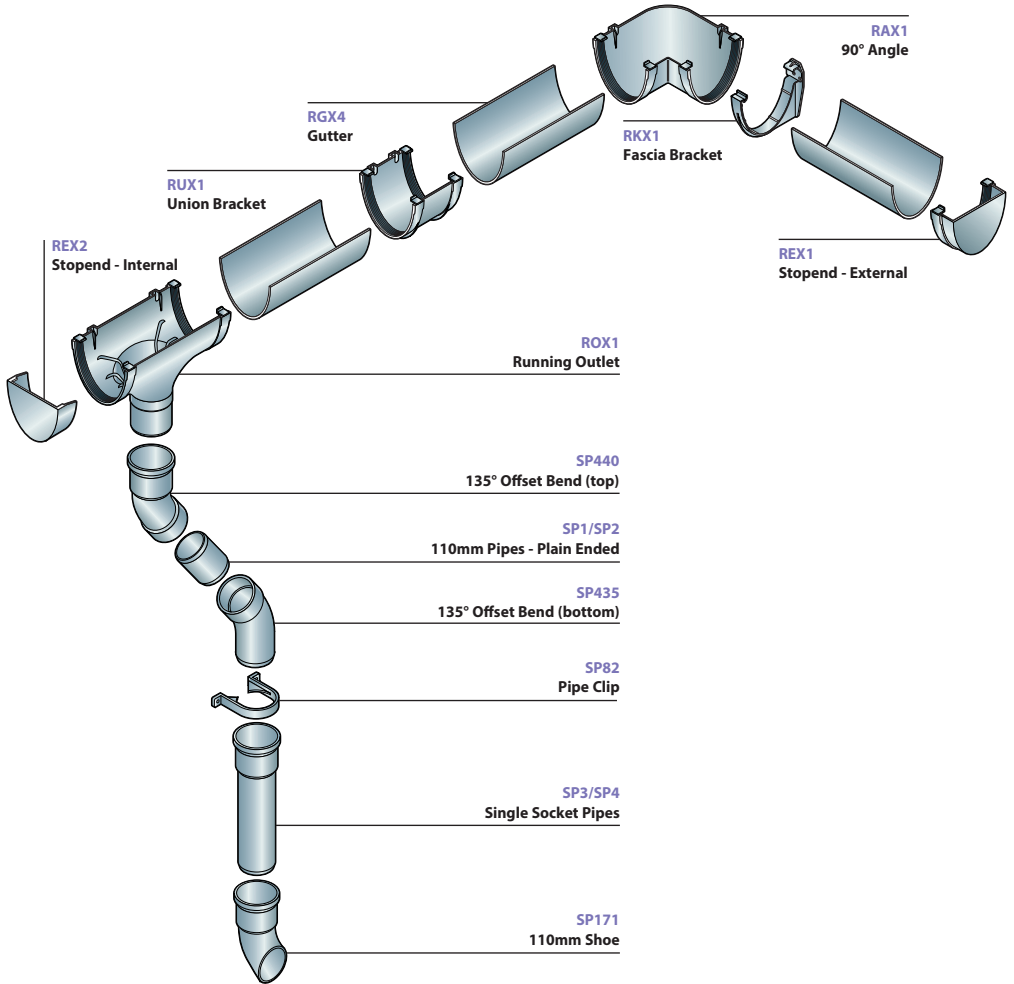
Product	Colour	Code
Pipe Socket		RSM1

Product	Colour	Code
MiniFlo Rainwater Diverter		RVM1

Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey



XtraFlo 170mm/110mm Rainwater System



FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

RAINWATER SYSTEMS



XtraFlo 170mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462



Colour



Dimensions



Features & Benefits:

- A semi-elliptical profile designed to enhance water flow.
- Ideal for large domestic/commercial buildings/warehouses/offices/apartment blocks or schools.
- Vortex outlet designed to promote a vacuum effect to increase the flow rate.
- Pre-fitted gutter seal for fast user-friendly installation.
- Utilises our 110mm soil system for downpipes.

Product	Colour	Code
Gutter		
	4m	RGX4

Product	Colour	Code
Angle 90°		
		RAX1

Product	Colour	Code
Running Outlet		
		ROX1

Product	Colour	Code
Fascia Bracket		
		RKX1

Product	Colour	Code
Union Bracket		
		RUX1

Product	Colour	Code
External Stopend		
		REX1

Product	Colour	Code
Internal Stopend		
		REX2

110mm Round Downpipe and Fittings

Standard: BS EN 1329, BS EN 1453



Product	Colours	Code
Pipe - Plain Ended		
	3m	SP1
	4m	SP2

Product	Colours	Code
Pipe - Single Socket		
	3m	SP3
	4m	SP4

Product	Colours	Code
Shoe		
		SP171

Product	Colours	Code
Pipe Clip		
		SP82

Product	Colours	Code
Offset Bend 135° (45°)		
	Ring Seal Top/ Solvent Bottom	SP440
	Spigot/ Solvent Socket	SP435

Product	Colours	Code
Hopper		
		RHX1

Product	Colours	Code
92½° Soil Pipe Branch		
		SP190

Product	Colours	Code
92½° Soil Pipe Access Bend		
		SP169

Product	Colours	Code
Access Pipe		
	Socket/ Spigot	SP274

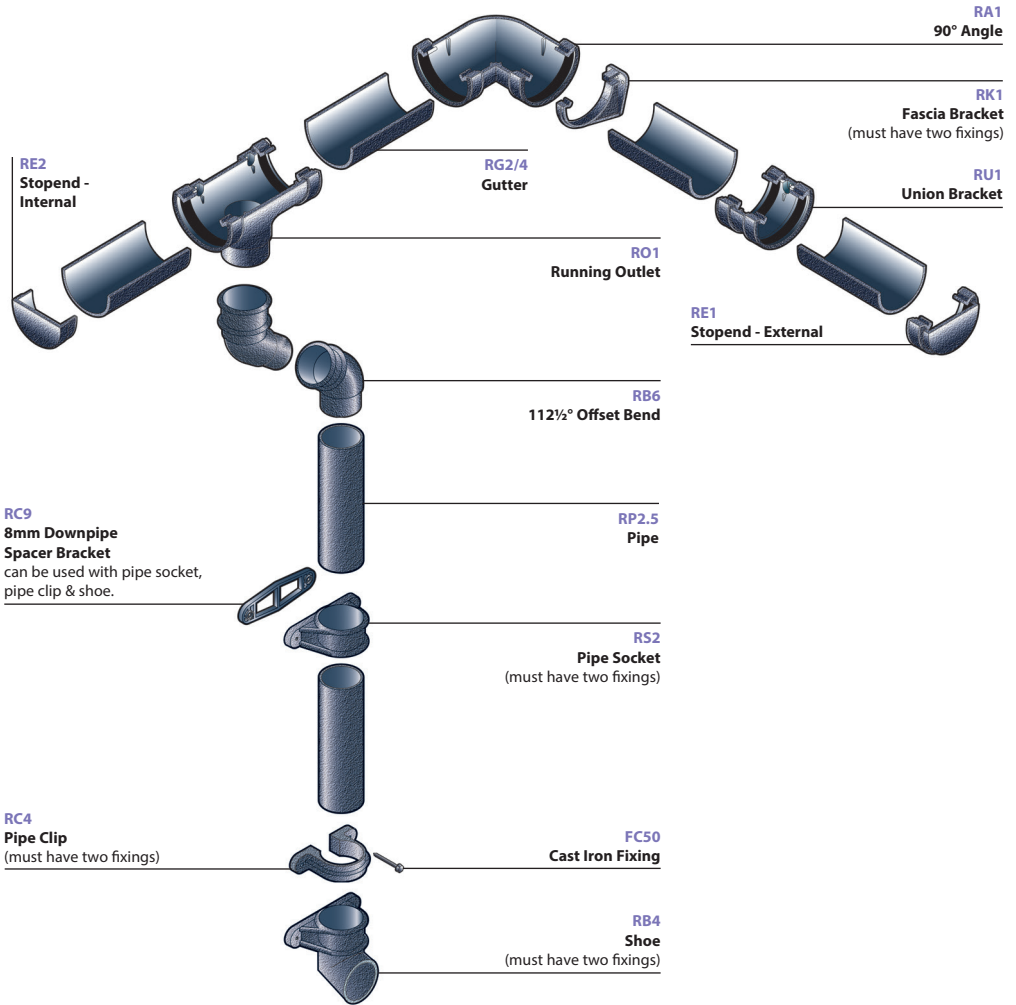
Important when ordering: Please add colour reference to code: **B** Black **W** White **G** Grey

"CAST IRON" STYLE RAINWATER SYSTEMS



20 YEAR
CAST IRON
GUARANTEE

Half Round 112mm/68mm Rainwater



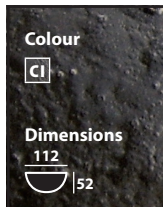
FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

"CAST IRON" STYLE RAINWATER SYSTEMS



20 YEAR
CAST IRON
GUARANTEE


Half Round 112mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462






Features & Benefits:

- The original Half Round profile.
- 20 year "Cast Iron" colour guarantee.
- Good flow capacity.
- Pre-fitted gutter seal retaining clip system for fast user friendly installation.
- Cost effective.
- Can be used on Grade I listed properties.
- All the benefits of PVC-U for quick and easy installation.


Product	Colour	Code
---------	--------	------


Gutter	Colour	Code
	2m	RG2
	4m	RG4



Angle	Colour	Code
	90°	RA1
	135°	RA2

Angle - Any Degree	Colour	Code
		RA9


FloPlast will fabricate any non-standard angle to special order

Running Outlet	Colour	Code
	68mm Round	RO1




Stopend Outlet	Colour	Code
	68mm Round	RO2

Stopend	Colour	Code
	External	RE1
	Internal	RE2

Product	Colour	Code
---------	--------	------

Fascia Bracket	Colour	Code
	CI	RK1

Union Bracket	Colour	Code
	CI	RU1

To Ogee Cast Iron Adaptors	Colour	Code
	Ogee R/H	RD3
	Ogee L/H	RD4
	To Half Round	RD5

For 68mm Round Downpipe see page 26.



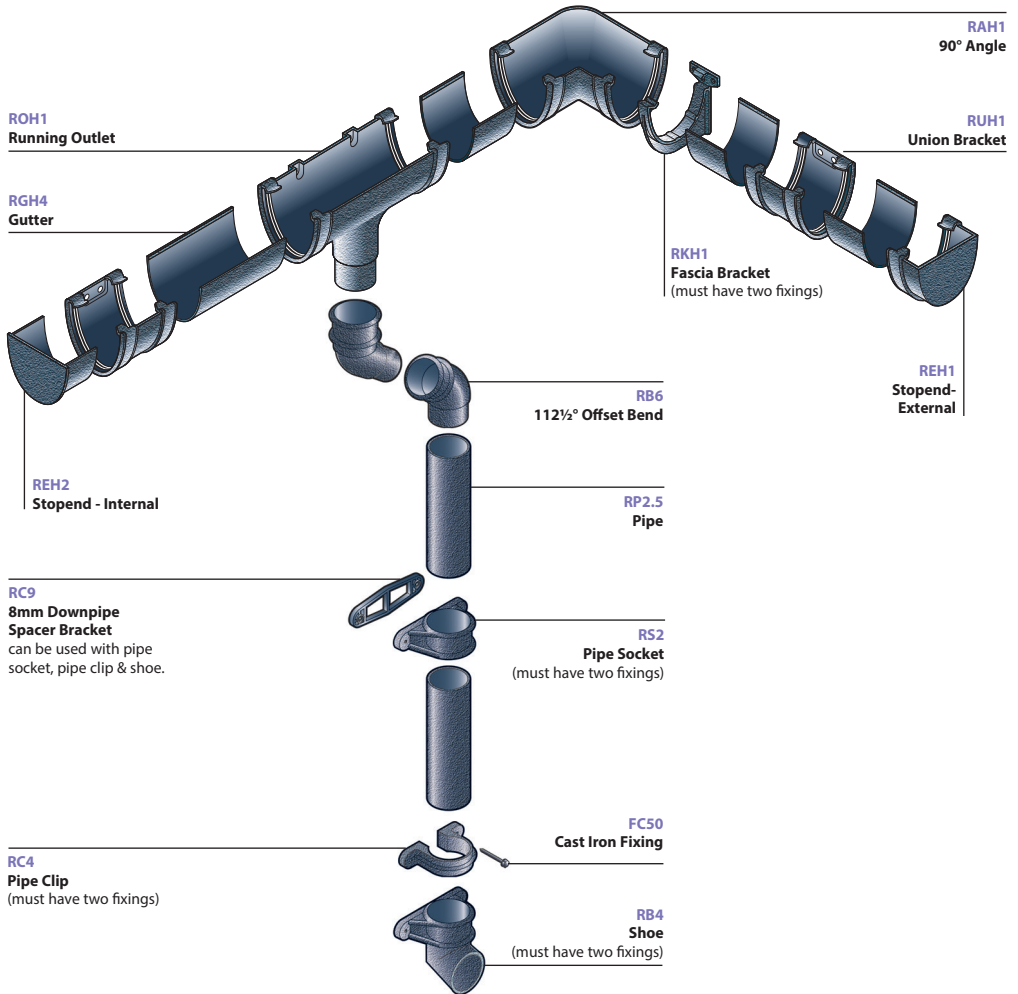
Important when ordering: Please add colour reference to code: **CI** "Cast Iron" Style

"CAST IRON" STYLE RAINWATER SYSTEMS



20 YEAR
CAST IRON
GUARANTEE

Hi-Cap 115mm/68mm Rainwater



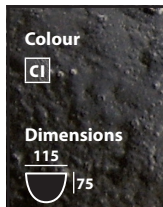
FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

"CAST IRON" STYLE RAINWATER SYSTEMS



20 YEAR
CAST IRON
GUARANTEE


Hi-Cap 115mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462





Features & Benefits:

- 20 year "Cast Iron" colour guarantee.
- A semi-elliptical profile .
- High capacity - ideal for large roof areas.
- Pre-fitted gutter seal retaining clip system for fast user friendly installation.
- Cost effective.
- Can be used on Grade I listed properties.
- All the benefits of PVC-U for quick and easy installation.

Product	Colour	Price
---------	--------	-------

Gutter		
	4m	CI RGH4

Angle	Colour	Price
-------	--------	-------

	90°	CI RAH1
	135°	CI RAH2

Angle - Any Degree	Colour	Price
--------------------	--------	-------

		CI RAH9
--	--	---------

FloPlast will fabricate any non-standard angle to special order.

Running Outlet	Colour	Price
----------------	--------	-------

	68mm Round	CI ROH1
--	------------	---------

Stopend Outlet	Colour	Price
----------------	--------	-------

	68mm Round	CI ROH2
--	------------	---------


External Stopend	Colour	Price
------------------	--------	-------

	External	CI REH1
--	----------	---------

Internal Stopend	Colour	Price
------------------	--------	-------

	Internal	CI REH2
--	----------	---------

Product	Colour	Price
---------	--------	-------

Fascia Bracket		
	CI	RKH1

Union Bracket	Colour	Price
---------------	--------	-------

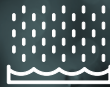
	CI	RUH1
---	----	------

For 68mm Round Downpipe see page 26.



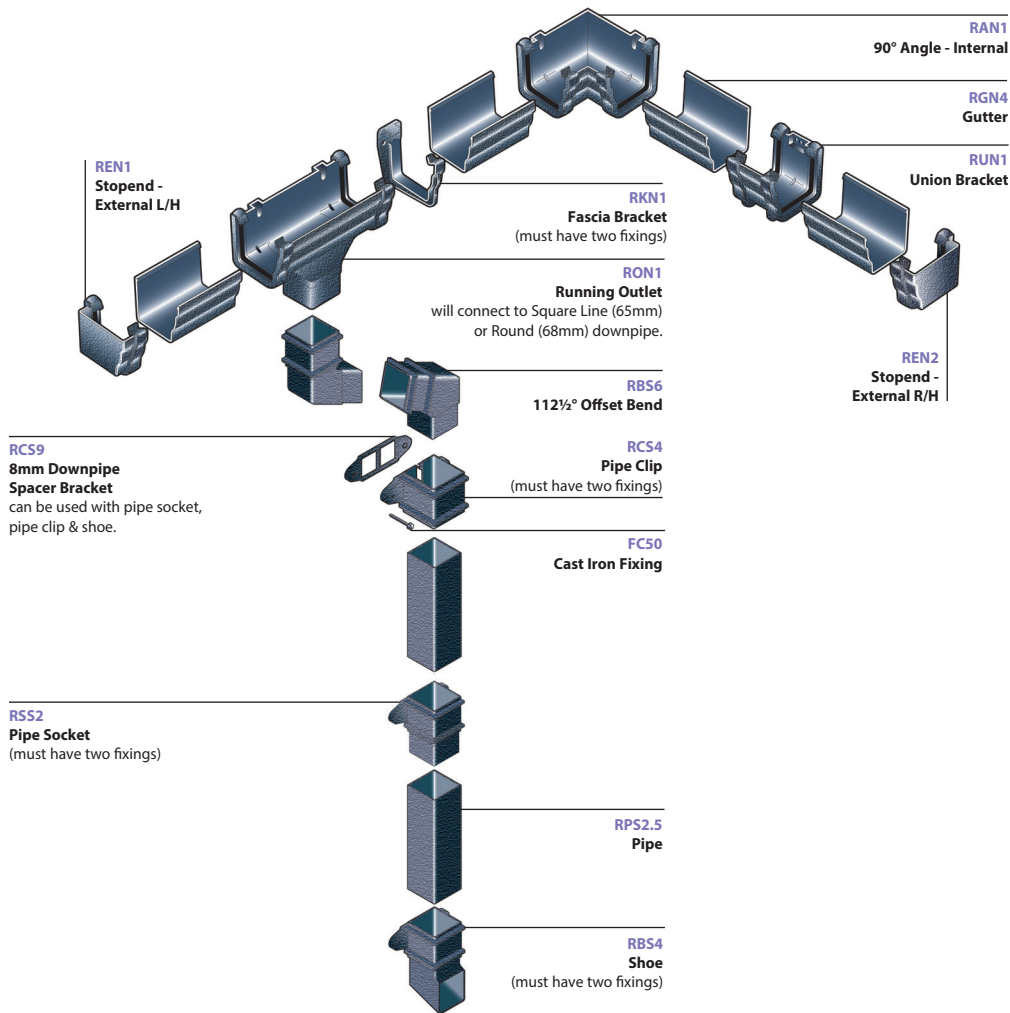
Important when ordering: Please add colour reference to code: **CI** "Cast Iron" Style

"CAST IRON" STYLE RAINWATER SYSTEMS



20 YEAR
CAST IRON
GUARANTEE

Niagara Ogee 110mm/65mm Rainwater





FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.


"CAST IRON" STYLE RAINWATER SYSTEMS







20 YEAR
CAST IRON
GUARANTEE

Niagara Ogee 110mm Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour 	Features & Benefits:	
	Dimensions 110 	<ul style="list-style-type: none"> Traditional style ogee Hopper available. High capacity system. Water-tight seal and retaining clip pre-fitted for fast user friendly installation. Black fixing bolts available.


Product	Colour	Code
Gutter 	3m	RGN3
	4m	RGN4



90° Angle		
	Internal	RAN1
	External	RAN2


135° Angle		
	Internal	RAN3
	External	RAN4



Angle - Any Degree		
		RAN9

FloPlast will fabricate any non-standard angle to special order.

Running Outlet - Multi Outlet		
		RON1

Stopend Outlet - 65mm Square		
	L/H	RON2
	R/H	RON3

Product	Colour	Code
Stopend - External 	L/H	REN1
	R/H	REN2

Stopend - Internal		
	L/H	REN3
	R/H	REN4

Fascia Bracket		
		RKN1

Union Bracket		
		RUN1

For 68mm "Cast Iron" Style Round Downpipe, see page 26.

For 65mm "Cast Iron" Style Square Downpipe see page 27.





Important when ordering: Please add colour reference to code: "Cast Iron" Style






















"CAST IRON" STYLE RAINWATER SYSTEMS























20 YEAR
CAST IRON
GUARANTEE

68mm Round Downpipe and Fittings Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour 	Features & Benefits:	
	Dimensions 68 	<ul style="list-style-type: none"> Traditional round profile. Can be used with Half Round, Hi-Cap and Niagara Rainwater Systems. Durable and lightweight. A practical, easy to install system.
	<ul style="list-style-type: none"> Cost effective. Easy to cut using a fine toothed saw. Suitable for new build and refurbishment applications. Can be used on Grade I listed properties. 	

Product	Colour	Code
Pipe		
 2.5m		RP2.5
Offset Bend		
 92½°		RB8
 112½°		RB6
Shoe		
 With fixing lugs Requires 2 x FC50 fixings		RB4
Pipe Clip		
 With fixing lugs Requires 2 x FC50 fixings		RC4
Pipe Socket		
 With fixing lugs Requires 2 x FC50 fixings		RS2
67½° Branch		
 		RY1
Access Pipe		
 		RX1
Square/Round Downpipe Adaptor		
 		RDS2

Product	Colour	Code
Universal Hopper: Connects to 65mm square and 68mm round downpipe		RH1
Ogee Hopper: Connects to 65mm square and 68mm round downpipe		
 With fixing lugs Requires 2 x FC50 fixings		RH4
Rectangular Hopper: Connects to 65mm square and 68mm round downpipe		
 With fixing lugs Requires 2 x FC50 fixings		RH5
This product is rotationally moulded and subject to bowing along its length up to +/-4%.		
Cast Iron Fixings C€		
 		FC50
12 gauge x 50mm stainless steel fixings for "Cast Iron" Range (Socket fixings).		
Fleur-de-Lis		
 55mm		FL55
75mm		FL70
Tudor Rose		
 40mm		TR55
55mm		TR70
Decorative Square		
 40mm		DS55
70mm		DS70
Lion's Head		
 75mm		LH55
90mm		LH70



Important when ordering: Please add colour reference to code:  "Cast Iron" Style

"CAST IRON" STYLE RAINWATER SYSTEMS





20 YEAR
CAST IRON
GUARANTEE





65mm Square Downpipe and Fittings Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour  CI	Dimensions 65 	Features & Benefits:	
		<ul style="list-style-type: none"> Attractive square profile. Can be used with Squareline and Niagara Rainwater Systems. Durable and lightweight. A practical, easy to install system. 	<ul style="list-style-type: none"> Cost effective. Easy to cut using a fine toothed saw. Suitable for new build and refurbishment applications. Can be used on Grade I listed properties.



Product	Colour	Code
---------	--------	------

Pipe		
	2.5m	 RPS2.5



Product	Colour	Code
---------	--------	------

Offset Bend		
	92½°	 RBS8
	112½°	 RBS6



Product	Colour	Code
---------	--------	------

Shoe		
	With fixing lugs Requires 2 x FC50 fixings	 RBS4

Product	Colour	Code
---------	--------	------

Pipe Clip		
	With fixing lugs Requires 2 x FC50 fixings	 RCS4



Product	Colour	Code
---------	--------	------

Pipe Socket		
	With fixing lugs Requires 2 x FC50 fixings	 RSS2



Product	Colour	Code
---------	--------	------

67½° Branch		
		 RYS2



Product	Colour	Code
---------	--------	------

Universal Hopper: Connects to 65mm square and 68mm round downpipe		
		 RH1

Product	Colour	Code
---------	--------	------

Ogee Hopper: Connects to 65mm square and 68mm round downpipe		
	With fixing lugs Requires 2 x FC50 fixings	 RH4

Product	Colour	Code
---------	--------	------

Rectangular Hopper: Connects to 65mm square and 68mm round downpipe		
	With fixing lugs Requires 2 x FC50 fixings	 RH5

This product is rotationally moulded and subject to bowing along its length up to +/-4%.

Product	Colour	Code
---------	--------	------

Cast Iron Fixings C€		
		 FC50

12 gauge x 50mm stainless steel fixings for "Cast Iron" Range (Socket fixings).

Product	Colour	Code
---------	--------	------

Fleur-de-Lis		
	55mm	 FL55
	75mm	 FL70

Product	Colour	Code
---------	--------	------

Tudor Rose		
	40mm	 TR55
	55mm	 TR70

Product	Colour	Code
---------	--------	------

Decorative Square		
	40mm	 DS55
	70mm	 DS70

Product	Colour	Code
---------	--------	------

Lion's Head		
	75mm	 LH55
	90mm	 LH70


Important when ordering: Please add colour reference to code:  "Cast Iron" Style

RAINWATER HARVESTING




EcoFlo Rainwater Diverters Standard: BS EN 12200 - 1




Product	Colour	Code
Rainwater Diverter		
	B W BR G AG CI	RVS1


Connects to 65mm square and 68mm round downpipe

Product	Colour	Code
Rainwater Diverter		
	B W BR G	RVH1

Connects to 80mm round downpipe


Product	Colour	Code
MiniFlo Rainwater Diverter		
	B W BR G	RVM1


Connects to 50mm round downpipe

Product	Colour	Code
Connector Kit		
	B W	RVS2


Not kitemarked


EcoFlo Water Storage Systems

Product	Code
100L Slim Water Butt	
	WB100

Product	Code
100L Slim Water Butt Stand	
	ST100

100L SLIM WATER BUTT	
<ul style="list-style-type: none"> 100L capacity. Space saving water butt ideal where space is at a premium. Supplied with tap and lid. Manufactured in the UK from recycled materials. 	
Dimensions	
Water Butt:	Stand:
32cm (12½") Length	33cm (13") Length
36cm (14") Width	33cm (13") Width
95.2cm (37½") Height	30.5cm (12") Height

Product	Code
210L Water Butt	
	WB200

Product	Code
200L Water Butt Stand	
	ST200

200L WATER BUTT	
<ul style="list-style-type: none"> 210L capacity. Traditional shape water butt with a large capacity. Supplied with tap and lockable lid. Manufactured in the UK from recycled materials. 	
Dimensions	
Water Butt:	Stand:
57cm (25½") Diameter	53cm (21") Diameter
97cm (39½") Height	31cm (12") Height

Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey **CI** "Cast Iron" Style

RAINWATER HARVESTING



StormSaver Rainwater Harvesting System Standard: BS 8515



With the average home owner using around 150 litres of water per day, the StormSaver Rainwater Harvesting System will enable the metered home owner to recycle rainwater and potentially reduce their bills by up to 50%, whilst remaining kinder to the environment. StormSaver can also alleviate pressure on local drainage in line with Sustainable Drainage Schemes (SuDS), to help prevent flood risk.

Benefits of using StormSaver:

- Uses over 75% less energy than other traditionally pumped Rainwater Harvesting Systems.
- Low decibel rating.
- Flow Rate of 10 litres per minute (same as mains pressure).
- Compact control unit.
- Cost effective.
- The shallow dig tank is robust and comes with all the necessary components.
- Ideal for new build properties and homes with up to 6 bedrooms.

Product	Size	Code
---------	------	------

StormSaver Packages

Package includes:

- Underground storage tank
- 235mm Entrance shaft
- Pedestrian duty lid for tank
- Control panel
- ½" Boosted floating suction filter kit
- 20m ½" Flexible suction hose

1500L	S1500
3000L	S3000
5000L	S5000
7500L	S7500



Vehicle Duty Entrance Shaft and Lid



635mm	VDL1
-------	------

Product	Size	Code
---------	------	------

½" Flexible Suction Hose



40m	H40
-----	-----

Level Sensor



LS1

Identification Tape and Label Pack



ID1

110mm Non-Return Valve - Single Flap











D550

Required for the system to comply with BS 8515










Leaf/Weather Protection

Product	Colour	Code
4m GutterBrush: Debris eliminator	B W	GB4
		
FloGuard: Leaf Protection System 5m Pack	B	FG1
		
Balloon: Leaf Protection System	Outlet Guard B	OG1
		
DrainGuard	Fits round and square downpipe B	DG1
		

Product	Colour	Code
Snow/Tile Guard - 2m	N/A	SG1
		
Snow/Tile Guard Bracket	N/A	SG2
		
	GutterBrush	
	FloGuard	

Ancillaries

Product	Colour	Code
40ml Compressed Silicone Lubricant Spray	N/A	SL40
		
8mm Round Spacer Brackets	B W	RC9
		
For 68mm round downpipe, only use with RS2, RC4 and RB4		
8mm Square Spacer Brackets	B W	RCS9
		
For 65mm square downpipe, only use with RSS2, RCS4 and RBS4		
8mm Universal Fascia Bracket Spacer	B W	RS9
		
Suitable for Half Round, Square Line, Niagara Ogee and Hi-Cap gutters only		

Product	Colour	Code
Universal Rise & Fall Bracket	N/A	RF1
		
Not suitable for XtraFlo		
Rafter Bracket Top Fix	N/A	RR1
		
Rafter Bracket Side Fix	N/A	RR2
		
Universal Rainwater Adaptor	B	D96
		
Connects to 110mm Drainage		

Important when ordering: Please add colour reference to code: **B** Black **W** White



Rainwater System Application

Applications

FloPlast Rainwater Systems are suitable for all applications and types of building, including domestic, commercial and industrial.

Composition

All products are manufactured from unplasticised polyvinyl chloride (PVC-U) and comply with the material requirements of either BS EN 12200-1, BS EN 607, BS EN 1462, BS EN 1453 or BS EN 1329-1 as relevant.

Rainwater gutters and pipes are manufactured by a continuous extrusion process. Fittings are produced on high-pressure injection moulding machines.

All fittings are manufactured to close tolerances allowing accurate incorporation of design features.

Accreditation

All of our profiles are manufactured to BS EN 607 (Gutters and fittings), BS EN 12200-1 BS EN 1329-1 and BS EN 1453 (Downpipes and fittings), BS EN 1462 (Gutter brackets) within a quality management system assessed and registered by British Standards as meeting the requirements of BS EN ISO 9001 (Certificate Number FM:501414).

Supply

Products are available from a national network of distributors and stockists. For details of your local stockist contact our Sales Office.

Capacity of Drainage

To select the gutter size appropriate to your requirements, two factors must be taken into consideration.

- Roof Area
- Gutter Flow Capacity

For further reference refer to BS EN 12056-3 "Roof Drainage Layout and Calculation".

The capacity of a drainage system should be large enough to carry the expected flow at any point in the system. The flow of 'run-off' depends upon the area to be drained, (the 'effective roof area'), and the intensity of rainfall. It is accepted that 75mm an hour is the intensity of rainfall in the United Kingdom. For further information, see the FloPlast "Gutter calculator" at www.floplast.co.uk

Cleaning and Maintenance

Although PVC-U rainwater systems are considered to be relatively low maintenance, it is important to clear gutter systems of fallen leaves and other debris at least once per year.

More frequent inspections may be necessary in areas of high pollution and where there are trees in the vicinity.

Inspection of the gutter and brackets is also advisable during and after periods of ice formation in the guttering system.

In some cases lighter coloured systems may require cleaning. Wash down with a solution of warm soapy water, in severe cases a non-abrasive kitchen cream cleaner should be used.

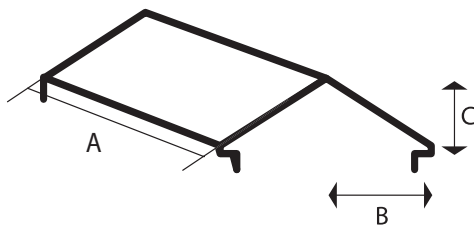
Roof Area

The effective roof area can be calculated by using the following formula:

$$(B + \frac{C}{2}) \times \text{length of Roof (A)} = \text{Area in M}^2$$

B = Half width of gable end or hip

C = Vertical measurement from eaves to apex





Rainwater System Installation

- Plan your installation using the component diagrams to assist you in selecting the correct type and quantity of products required.
 - Gutter Flow Capacity Fascia brackets should be spaced at a maximum of one metre apart on straight gutter runs. (800mm in the case of the Niagara system, 600mm in the case of the Xtraflo system). When using 80mm Round Downpipe with Hi-Cap and Niagara Systems, fascia brackets should be spaced at a maximum of 800mm intervals. In areas where there is the possibility of high levels of snowfall, fascia brackets should be spaced at a maximum of 400mm centres. For further information, view our snow loading statement below.
 - Angles and stopends should have a fascia bracket within 150mm of the fitting.
 - A supporting pipe clip should be used on shoes, sockets, branches and bends where necessary.
 - Support downpipes below any offset and at maximum intervals of 1.8 metres.
 - Where necessary remove the old gutter and replace old fascia board with FloPlast low maintenance PVC-UE co-extruded fascia board.
 - Establish the position of the running outlet, usually over an existing drain, and fix securely to the fascia board.
 - Fix a fascia bracket 100mm short of furthest point from the outlet. Allow for a fall to the outlet (1:350 is recommended) using a string line.
 - Fixings:
 - Fix fascia and union brackets at required intervals. Fascia brackets should be positioned so as to avoid the fixing screws splitting the top edge of any timber fascia board. All brackets should be secured to the fascia board with two 25mm x 5mm (1" x 10) screws or one 40mm x 5mm (1½" x 10) screw. The "Cast Iron" fascia brackets must have two fixings.
 - Unions should be fixed using two 25mm x 5mm (1" x 10) screw or one use with 40mm x 5mm (1½" x 10) screw.
 - Outlets should be fixed using two 25mm x 5mm (1" x 10) screws.
 - In areas of heavy snowfall it is recommended that each fascia bracket is secured using two 25mm x 5mm (1" x 10) screws.
 - Rainwater downpipe clips should be fixed using two 40mm x 6mm (1½" x 12) screws as a minimum.
 - Round head screws are the recommended style of screw, however counter sunk can be used as long as care is taken not to overtighten, particularly when using power tools.
 - Lubricate all gutter seals with FloPlast silicone spray lubricant to ensure an easy fit and to allow for movement caused by expansion and contraction.
 - Working from the running outlet insert the back edge of the gutter under the retaining lip of the wrap around clip. Using slight downward pressure on the gutter snap the front edge of the retaining clip over the front of the gutter. (Ensure that the marked expansion allowance is kept.)
 - Use a union bracket or angle to join to the next gutter length in order to build up a gutter run. Use a stopend to complete the run.
 - Downpipe installation starts at the outlet. If an offset is required use two offset bends with or without a short piece of pipe, alternatively if installing square downpipe use an adjustable offset bend. Ensure a 6mm gap is left at the top of the downpipe for expansion.
- Pipe sockets if required should be secured to the wall with a pipe clip.
- At the base of the pipe, fit a shoe secured with a pipe clip or connect downpipe to the underground drainage system using a 110mm x 68mm or 50mm reducer (SP96/D96 or D97).

SNOW LOADING STATEMENT

Snow slippage is particularly evident where smooth roofing materials, such as slate, have been installed. For additional security, FloPlast strongly recommend the installation of Snow Guard (see page 30) which facilitates the retention of snow, allowing slow melt, rather than slippage. In areas where there is the possibility of high levels of snowfall, fascia brackets should be spaced at a maximum of 400mm centres.

Several factors can come into play with the performance of rainwater systems, installation, overhang and style of the roof system (tiles/slates), pitch of roof, North or South facing, above or below 100 metres above sea level.



Gutter Flow Rates

OUTLET AT END OF GUTTER RUN								
System	Gutter Fixed Level				Gutter Fixed at 1:350 fall			
	Gutter Flow (litres/sec)		Roof Area (m ²)		Gutter Flow (litres/sec)		Roof Area (m ²)	
	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056
Half Round 68mm Circular Downpipe	0.92	0.82	44	40	1.17	1.05	56	50
Square Line 65mm Square Downpipe	1.70	1.53	81	73	2.00	1.80	96	86
Hi-Cap 68mm Circular Downpipe	2.05	1.84	98	88	2.56	2.30	123	111
Hi-Cap 80mm Circular Downpipe	2.25	2.02	108	97	2.79	2.51	134	121
Niagara Ogee 65mm Square Downpipe	2.40	2.16	115	104	2.90	2.61	139	125
Niagara Ogee 80mm Circular Downpipe	2.64	2.37	127	114	3.19	2.87	153	138
XtraFlo 110mm Circular Downpipe	4.30	3.87	206	185	6.20	5.58	297	267

OUTLET AT CENTRE OF GUTTER RUN								
System	Gutter Fixed Level				Gutter Fixed at 1:350 fall			
	Gutter Flow (litres/sec)		Roof Area (m ²)		Gutter Flow (litres/sec)		Roof Area (m ²)	
	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056
Half Round 68mm Circular Downpipe	1.80	1.62	86	77	2.60	2.34	125	113
Square Line 65mm Square Downpipe	3.41	3.06	163	147	3.95	3.55	189	170
Hi-Cap 68mm Circular Downpipe	3.80	3.42	182	164	5.00	4.05	240	216
Hi-Cap 80mm Circular Downpipe	4.18	3.76	200	180	5.50	4.95	264	238
Niagara Ogee 65mm Square Downpipe	4.50	4.05	216	194	5.30	4.77	254	229
Niagara Ogee 80mm Circular Downpipe	4.95	4.45	237	213	5.83	5.24	279	251
XtraFlo 110mm Circular Downpipe	8.20	7.38	393	354	11.80	10.62	566	509

The flow rates in the columns BS 12056 have been calculated in accordance with BS EN 12056-3: 2000 where 90% of full flow is used as a safety factor (freeboard).

A rainwater system is suitable in terms of performance as long as the carrying capacity of the chosen configuration exceeds the calculated run-off of rainwater from the roof.



Hopper Flow and System Design

HOPPERS		
Code	Hopper Flow (litres/sec) Max flow rate	Roof Area (m ²) Max flow rate
RH1/RHS1	1.14	54.5
RH4	2.18	104.5
RH5	2.18	104.5
RHH1	1.66	79.5

Design Factors

Building Regulations (Approved Document H) requirements. The provisions to meet the requirements of the Building regulations 2000 (2002) are set out in Approved document H part H3.

An alternative to this requirement, is to follow the relevant recommendations of BS EN 12056-3 Roof Drainage, Layout and Calculation.

This document gives very comprehensive information on the calculations/design of systems in a variety of situations, and should be referred to whenever large industrial type installations are envisaged or whenever particularly severe weather conditions are expected.

Expansion

Tests have shown that expansion and contraction of gutter occurs during normal usage, and expansion tolerances are allowed for within our fittings.

Tests were conducted between -8°C and +40°C where an expansion of 14.63mm was experienced over a 4 metre length.

These are obvious extremes, and under normal daily temperature fluctuations expansion and contraction will be in the region of 10mm per 4 metre length.

Pipe Dimensions	Normal Size	Actual OD
Circular	50mm (2")	50.3mm
	68mm (2½")	68.48mm
	80mm (3")	80.15mm
	110mm (4")	110.2mm
Square	65mm (2½")	65mm

Carrying Capacities for Gutter

The carrying capacity of gutters varies under differing conditions. The main variables are whether or not the gutter is fitted to a fall or level and whether the outlet is placed in the centre or at one end of the gutter run.

Gutter flow rates will vary according to the type and configuration of downpipe system being used, however downpipe sizing is not a normal design consideration, as the downpipe systems manufactured by FloPlast have flow capacities approximately ten times greater than the gutter systems they drain.

The carrying capacities in litres per second for gutters, taking into account the major variables, are specified in the performance table on page 33.

Design Data All gutter dimensions are nominal

<p>Half Round and "Cast Iron" Style Half Round</p>	<p>Hi-Cap and "Cast Iron" Style Hi-Cap</p>	<p>MiniFlo</p>
<p>Square Line</p>	<p>Niagara Ogee and "Cast Iron" Style Niagara Ogee</p>	<p>XtraFlo</p>



Rainwater System Compatibility

FloPlast System:	Xtraflo		Niagara		Hi-Cap		Half Round		Square		MiniFlo	
	Gutter	110mm Pipe	Gutter	65mm Square Pipe	Gutter	68mm Round Pipe	Gutter	68mm Round Pipe	Gutter	65mm Square Pipe	Gutter	50mm Round Pipe
Brett Martin	✗	✓	✗	✓	✓	✓	✓	✓	✗	✓	✗	✗
Osma	✗	✓	✗	✗	✓	✓	✓	✓	✗	✗	✗	✗
Polypipe	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗
Terrain	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Marley	✗	✓	✗	✓	✓	✓	✓	✓	✗	✓	✗	✗
Hunter	✗	✓	✗	✓	✗	✓ (Tight fit)	✓	✓ (Tight fit)	✓	✓	✗	✗
Swish	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✗	✗
Kalsi	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗
Freefoam	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗

Key: ✓: Fully Compatible ✓: Compatible in one direction only ✗: Not Compatible

The above is a guide only for connection to existing fitted product. We recommend that you do not mix systems if at all possible.

Transportation, Handling and Storage

FloPlast PVC-U pipes and gutters are supplied in secure bales bound with straps within timber frames. FloPlast recommend that movement of bales is carried out by fork lift or other mechanical device using webbing or rope strings.

The bales may be stacked up to a maximum of three high, providing that the timber frames are placed on each other.

Fittings are generally supplied in plastic bags and should be stored away from direct sunlight. If they have to be stored outside, the bags should be opened to prevent temperature build-up.

Terms and Conditions of Sale

Goods are sold subject to our Standard Terms and Conditions of Sale, copies of which are available upon request. FloPlast Limited reserve the right to modify or extend any product range or published information without prior notice.



FloPlast

building the future

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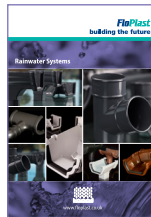
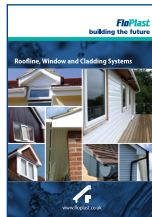
Website

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Underground Drainage
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