

“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

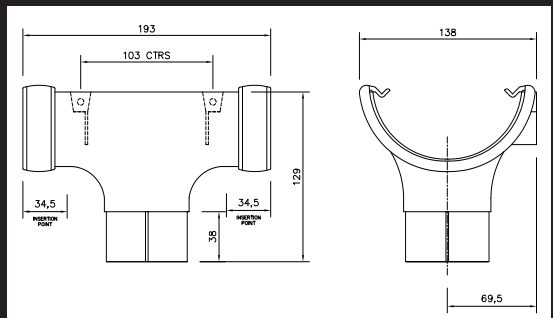
Perfect for any Trade Counter, giving the customer a chance to see, touch and feel the product in the flesh and learn more.

FLOPLAST CAD DRAWINGS

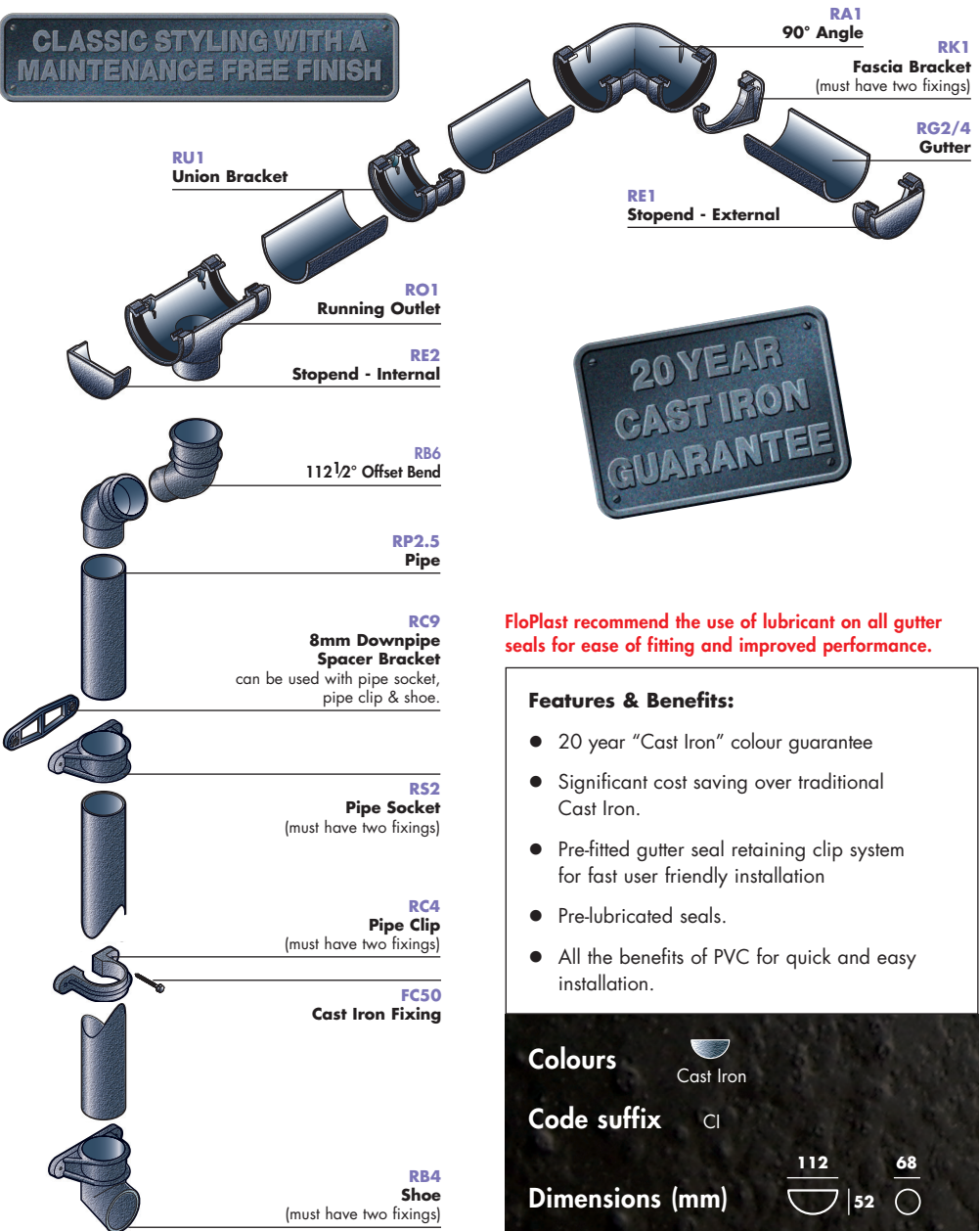
The benefits of CAD drawings are well known by the Architect/Specifier community. Drawings are available to download for each product that

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



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

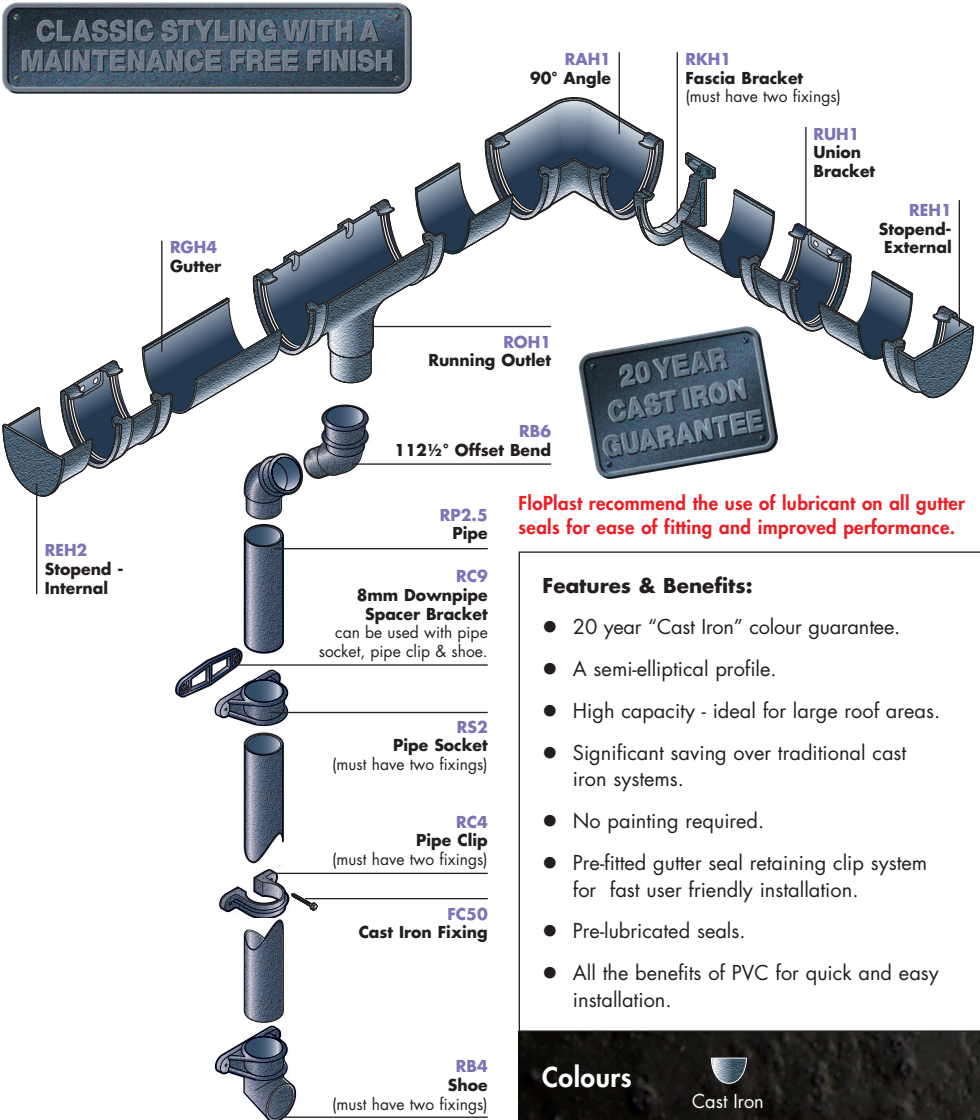
Motifs can be applied to hoppers or running outlets using a proprietary adhesive such as Siroflex MS Polymer.

** 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.

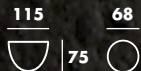
Colours



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

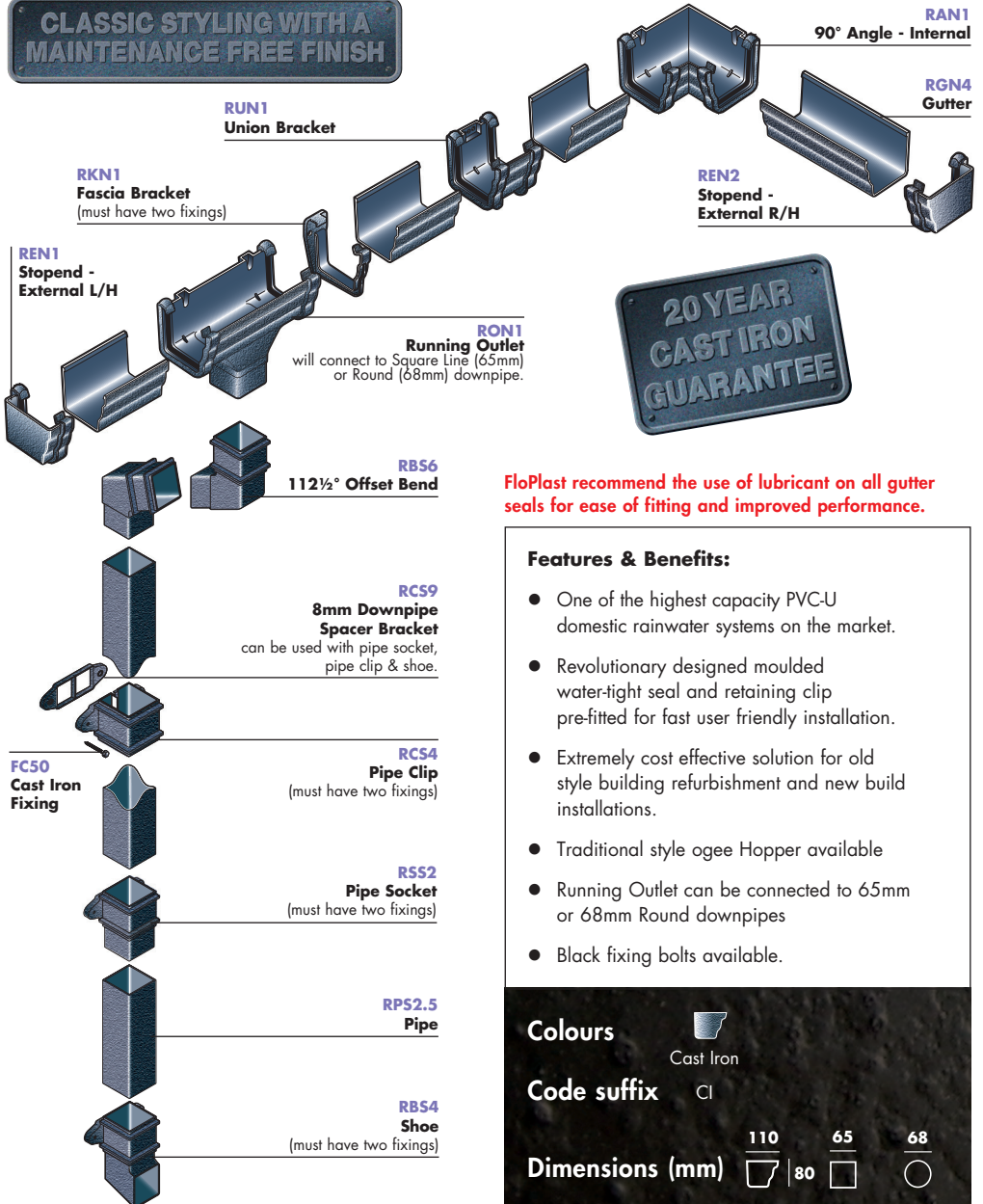
Motifs can be applied to hoppers or running outlets using a proprietary adhesive such as Siroflex MS Polymer.
** This product is rotationally moulded and subject to bowing along its length up to +/-4%.

*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	 (Black/white only) Suitable for Half Round, Square Line, Niagara Ogee and Hi-Cap gutters only	RS9	 Round	RRC1
GutterBrush (black)		8mm Downpipe Spacer Brackets		 Niagara	RRNC1
 Debris eliminator (4m)	GB4	 Only use with RS2, RC4 & RB4 (Black/white only)	RC9	 Hi-Cap	RRHC1
NEW GutterBrush (white)		For use with 68mm Round downpipe		Cast Iron Fixings	
 Debris eliminator (4m)	GB4	 Only use with RS2, RCS4 & RBS4 (Black/white only)	RCS9		FC50
FloGuard: Leaf Protection System 5m Pack		For use with 65mm Square downpipe		12 gauge x 50mm stainless steel fixings for "cast Iron" Range (socket fixings).	
	FG1				

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

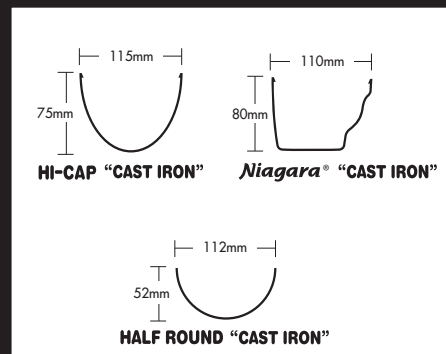
The carrying capacity of gutters varies under differing conditions. The main variables are whether or not the gutter is fitted to a fall and whether the outlet is placed in the centre or at one end of the gutter run.

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.



FloPlast

building the future

Other systems available:

FloPlast Limited
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Eurolink Business Park
Sittingbourne
Kent ME10 3FP
UK

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Sales Office Direct Line:
01795 421422

Fax:
01795 431188

E-mail:
sales@floplast.co.uk

Website:
www.floplast.co.uk



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

PVC-UE Roofline,
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Rainwater
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Systems

Underground
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MDPE
Systems

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