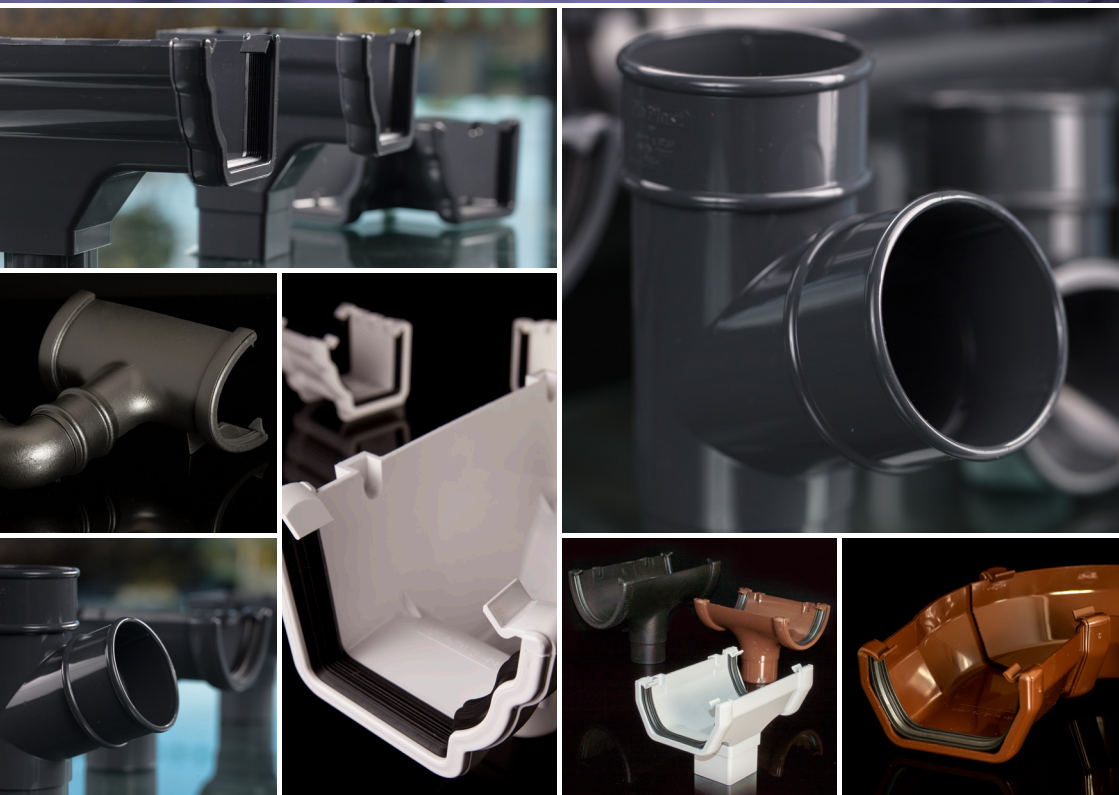


**FloPlast**  
building the future

## Rainwater Systems



[www.floplast.co.uk](http://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

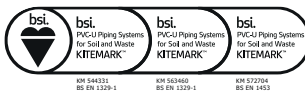


All products are subject to continuous quality control procedures and products manufactured to British Standard Specifications are marked accordingly.

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](http://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.

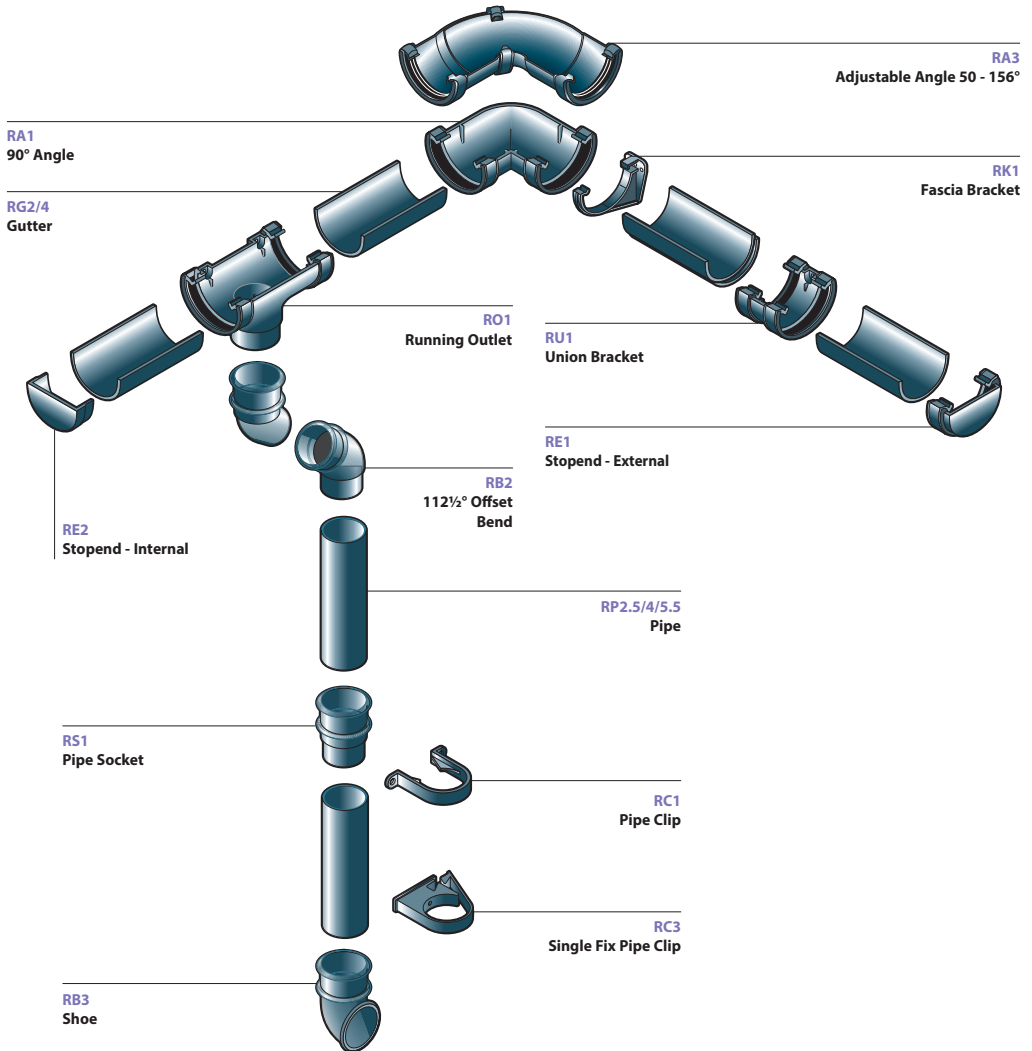
## Specification, Technical Advice and Design

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	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RG2
	3m	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RG3
	4m	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RG4

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

	90°	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RA1
	135°	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RA2

Adjustable Angle 50° - 156°		
-----------------------------	--	--

		<b>B</b> <b>W</b> <b>BR</b> RA3
--	--	---------------------------------

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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RA9
--	--	--

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

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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RO1
--	--	--

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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RO2
--	--	--

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

Stopend		
	External	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RE1
	Internal	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RE2

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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RK1
--	--	--

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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RU1
--	--	--

To Cast Iron Ogee Gutter Adaptors		
-----------------------------------	--	--

	R/H	<b>B</b> <b>W</b> RD3
	L/H	<b>B</b> <b>W</b> RD4

To Half Round Cast Iron Adaptor		
---------------------------------	--	--

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> RD5
--	--	--

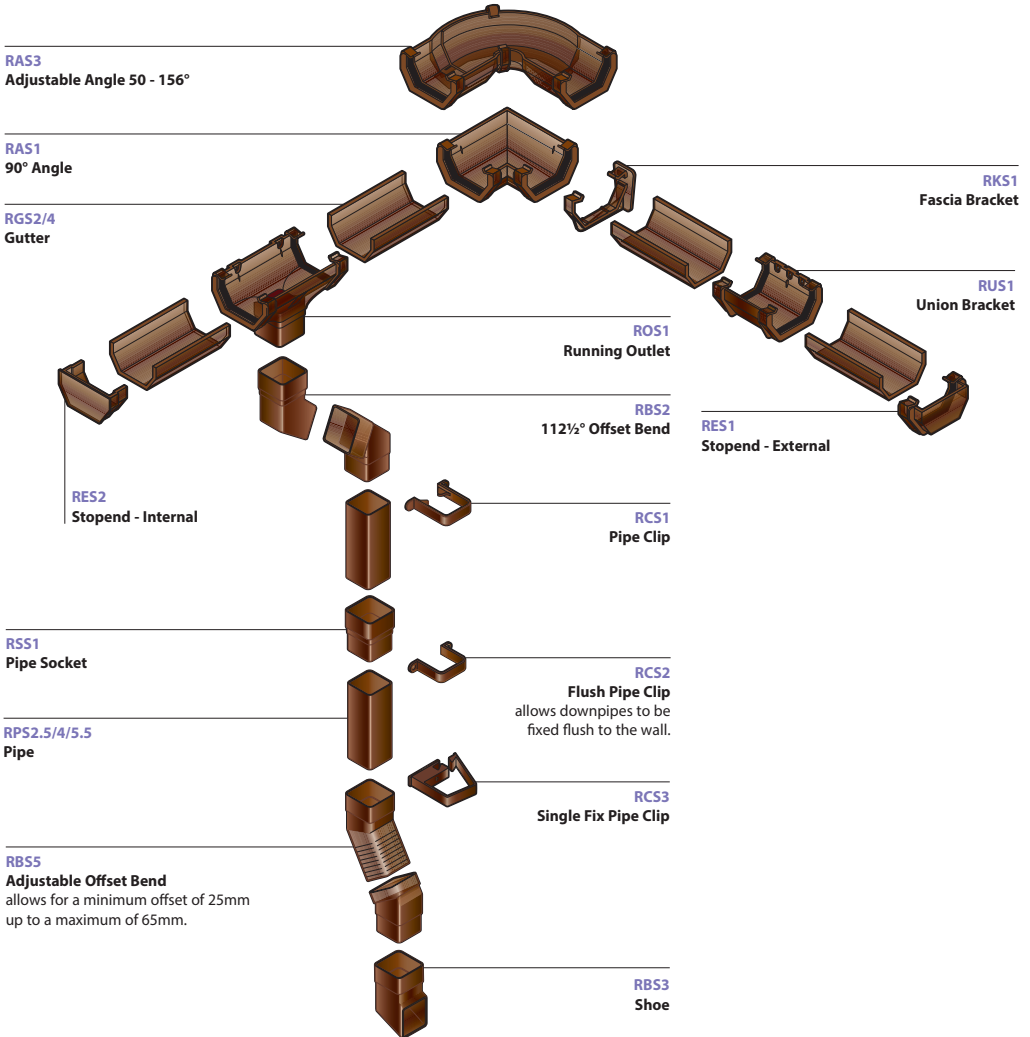
For 68mm Round Downpipe see page 12.

**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



## 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>B</b> <b>W</b> <b>BR</b>	RGS2	
	3m	<b>B</b> <b>W</b> <b>BR</b>	RGS3	
	4m	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RGS4	

Angle			
	90°	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RAS1
	135°	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RAS2

Adjustable Angle 50° - 156°		
	<b>B</b> <b>W</b> <b>BR</b>	RAS3

Angle - Any Degree		
	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RAS9

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

Running Outlet		
	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	ROS1

Stopend Outlet		
	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	ROS2

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

Stopends			
	External	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RES1
	Internal	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RES2

Fascia Bracket		
	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RKS1

Union Bracket		
	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RUS1

Square/Round Gutter Adaptor		
	<b>B</b> <b>W</b> <b>BR</b>	RDS1

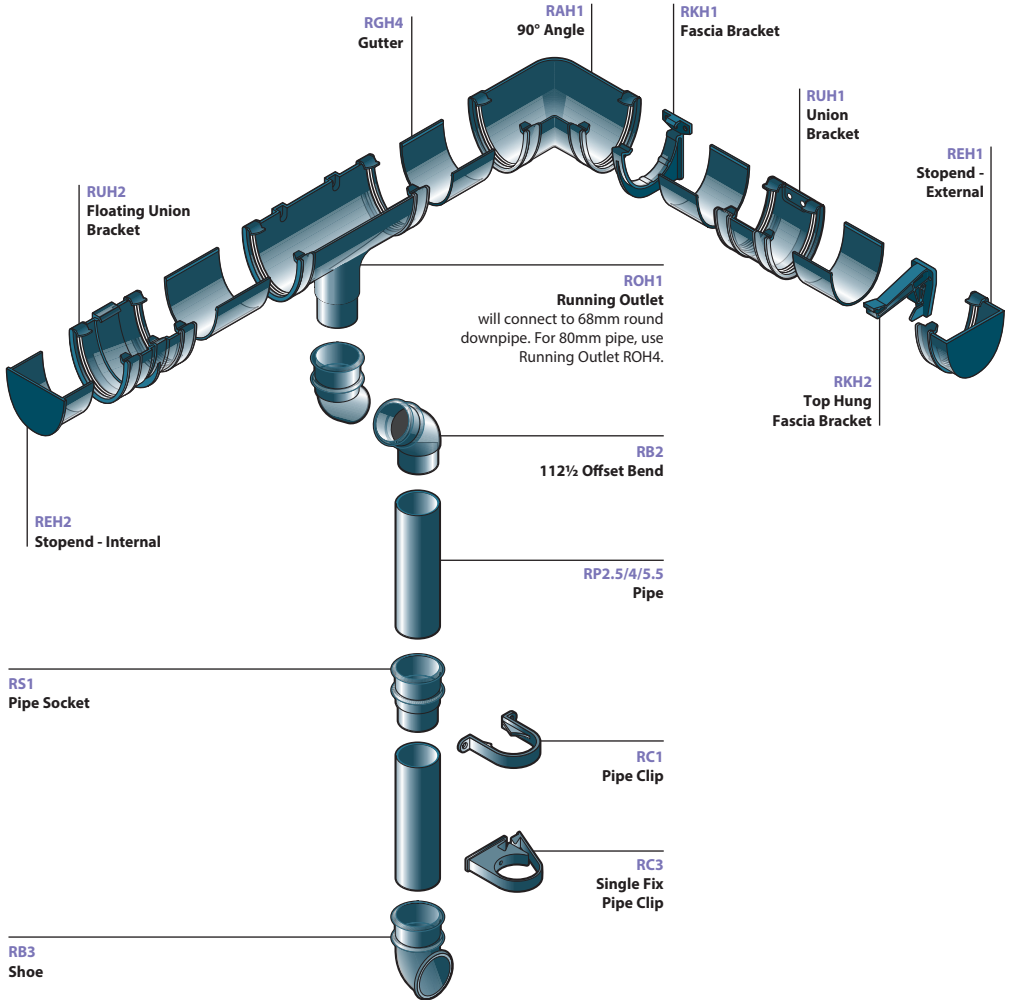
To Cast Iron Gutter Adaptors			
	Ogee R/H	<b>B</b> <b>W</b> <b>BR</b>	RDS3
	Ogee L/H	<b>B</b> <b>W</b> <b>BR</b>	RDS4
	Half Round	<b>B</b> <b>W</b> <b>BR</b>	RDS5

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>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RGH4	

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



	90°	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RAH1
	135°	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RAH2

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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RAH9
--	--	--	------

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



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

	68mm	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	ROH1
	80mm	<b>B</b> <b>W</b> <b>BR</b> <b>G</b>	ROH4



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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	ROH2
--	--	--	------

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

Stopend			
	External	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	REH1
	Internal	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	REH2

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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RKH1
	Top Hung	<b>B</b> <b>W</b>	RKH2



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

		<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RUH1
--	--	--	------

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

		<b>B</b> <b>W</b>	RUH2
---	--	-------------------	------

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

	Half Round	<b>B</b> <b>W</b> <b>BR</b>	RHR3
	Square Line	<b>B</b> <b>W</b> <b>BR</b>	RHS3

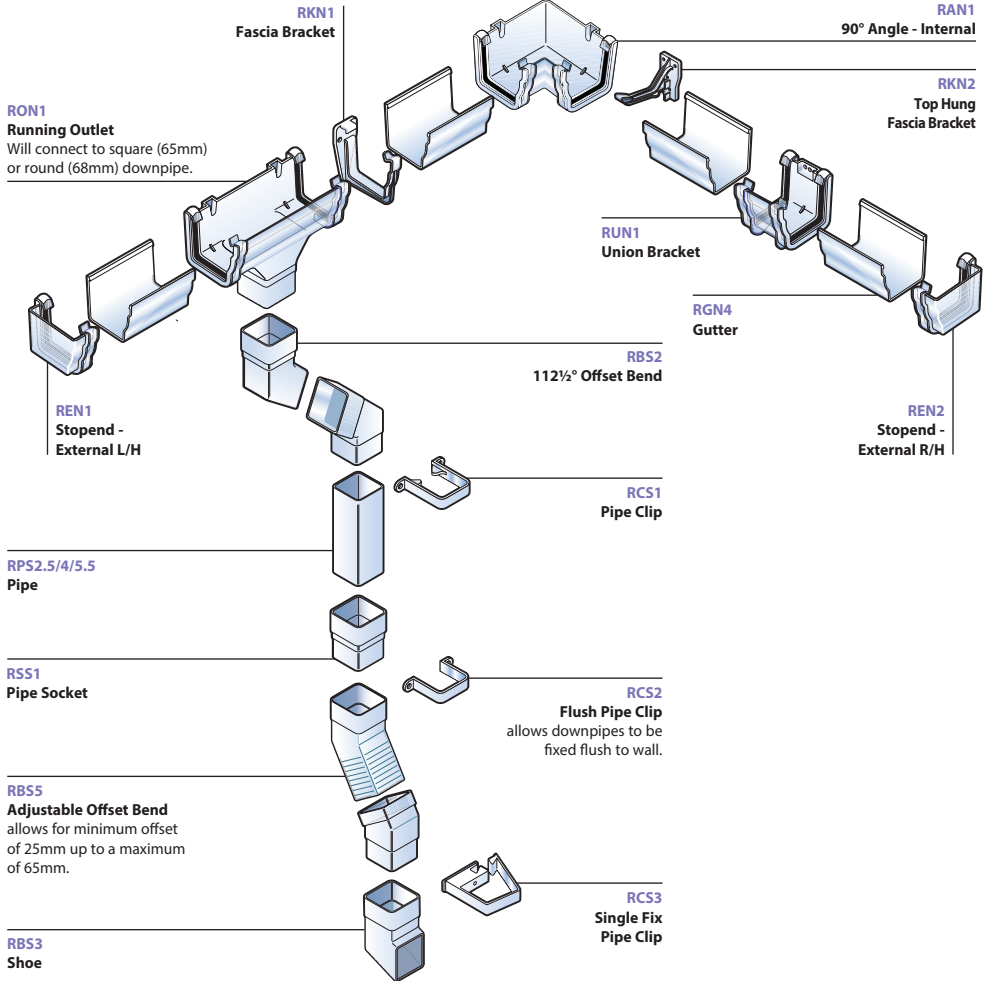
For 68mm Round Downpipe see page 12.

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



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

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



## 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>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RP2.5
	4m	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RP4
	5.5m	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RP5.5

### Offset Bends

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

### 67 1/2° Branch

	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RY1
--	--	-----

### Shoes

	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RB3
	With fixing lugs <b>B</b> <b>W</b>	RB4 <sup>1</sup>

### Pipe Sockets

	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RS1
	With fixing lugs <b>B</b> <b>W</b>	RS2 <sup>3</sup>

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

Pipe Clips		
	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RC1
	Single Fix <b>B</b> <b>W</b> <b>BR</b> <b>G</b>	RC3
	With fixing lugs <b>B</b> <b>W</b>	RC4 <sup>2</sup>

### Access Pipe

	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RX1
--	--	-----

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

	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b>	RHS1
--	--	------

<sup>1</sup> Must be used in conjunction with RC4 and RS2.

<sup>2</sup> Must be used in conjunction with RB4 and RS2.

<sup>3</sup> Must be used in conjunction with RC4 and RB4.

**Cl** For "Cast Iron" Style see page 26

# RAINWATER SYSTEMS



## 65mm Square Downpipe and Fittings

Standard: BS EN 12200 -1



EN 501234  
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>B</b> <b>W</b> <b>BR</b> <b>AG</b> RPS2.5
	4m	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b> RPS4
	5.5m	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b> RPS5.5

### Offset Bend

	92½°	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b> RBS1
	112½°	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b> RBS2



### Shoe

		<b>B</b> <b>W</b> <b>BR</b> <b>AG</b> RBS3
	With fixing lugs	<b>B</b> <b>W</b> RBS4 <sup>1</sup>





### Adjustable Offset Bend

		<b>B</b> <b>W</b> <b>BR</b> RBS5
--	--	----------------------------------

### Pipe Sockets

		<b>B</b> <b>W</b> <b>BR</b> <b>AG</b> RSS1
	With fixing lugs	<b>B</b> <b>W</b> RSS2 <sup>2</sup>

### Product Colour Code

Product	Colour	Code
	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RCS1
	Flush <b>B</b> <b>W</b> <b>BR</b>	RCS2
	Single Fix <b>B</b> <b>W</b> <b>BR</b>	RCS3
	With fixing lugs <b>B</b> <b>W</b>	RCS4 <sup>3</sup>

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

	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RDS2
--	---------------------------------------	------

### 67½° Branch

	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RYS1
---	---------------------------------------	------

### Square Access Pipe

	 <b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RXS1
---	---	------

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

	<b>B</b> <b>W</b> <b>BR</b> <b>AG</b>	RHS1
---	---------------------------------------	------

<sup>1</sup> RBS1 must be used in conjunction with RCS4 and RSS2.

<sup>2</sup> RSS2 must be used in conjunction with RCS4 and RBS4.

<sup>3</sup> 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
<b>Pipe</b>		
	4m	<b>B W BR G</b> RPH4
<b>Offset Bend</b>		
	92½°	<b>B W BR G</b> RBH1
	112½°	<b>B W BR G</b> RBH2
<b>Shoe</b>		
		<b>B W BR G</b> RBH3
<b>Pipe Clip</b>		
	Single Fix	<b>B W BR G</b> RCH3
<b>67½° Branch</b>		
		<b>B W BR G</b> RYH1
<b>Pipe Socket</b>		
		<b>B W BR G</b> RSH1
<b>80mm Rainwater Adaptor:</b> Connects 110mm Drainage		
		<b>B</b> D97






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



## Spares Gutter Seals

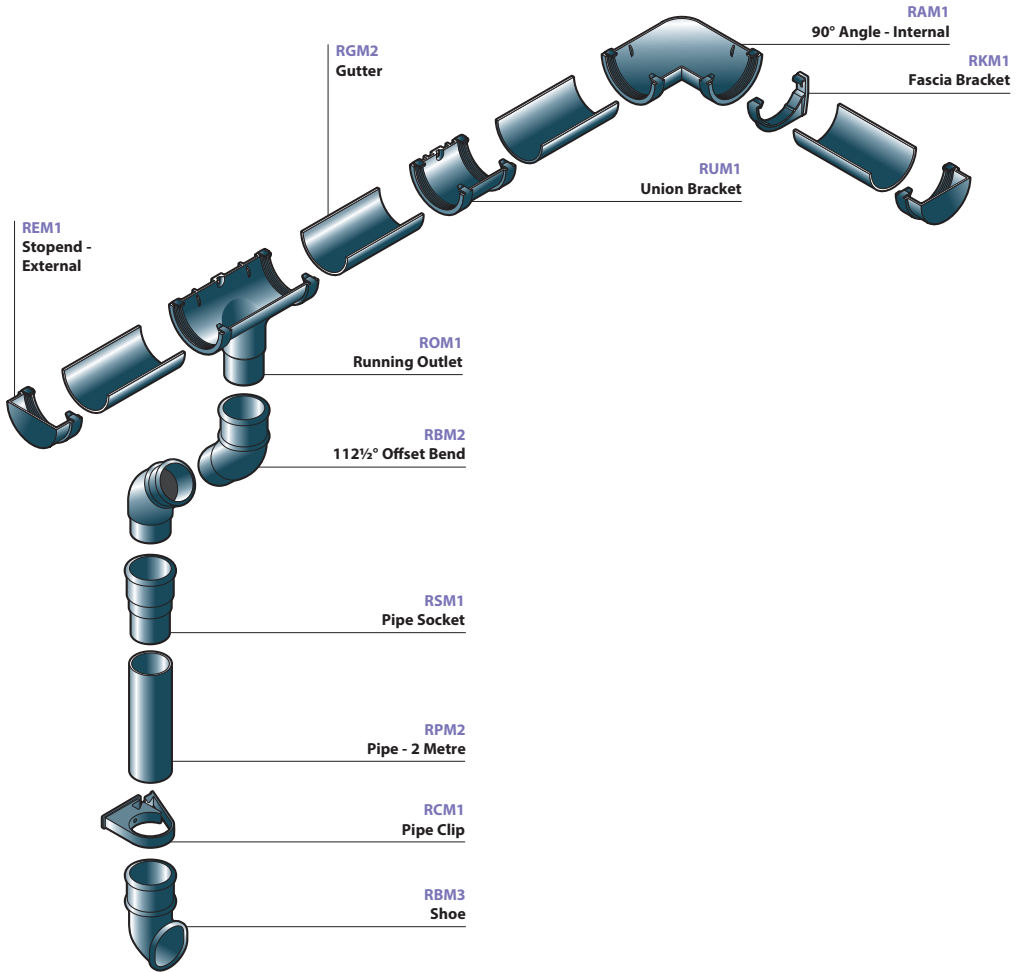
Product	Code
<b>Half Round Gutter Seal</b>	
	RRS1
<b>Square Line Gutter Seal</b>	
	RRSS1
<b>Hi-Cap Gutter Seal</b>	
	RRHS1

Product	Code
<b>Niagara Ogee Gutter Seal</b>	
	RRNS1
<b>MiniFlo Gutter Seal</b>	
	RRMS1
<b>XtraFlo Gutter Seal</b>	
	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

Product	Colour	Code
Angle		RAM1
	90°	
	135°	RAM2

### Product Colour Code

Product	Colour	Code
Running Outlet		ROM1

### Product Colour Code

Product	Colour	Code
Stopend Outlet		ROM2

### Product Colour Code

Product	Colour	Code
Stopend		REM1

### Product Colour Code

Product	Colour	Code
Fascia Bracket		RKM1

### Product Colour Code

Product	Colour	Code
Union Bracket		RUM1

### Product Colour Code

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

Product	Colour	Code
Offset Bend 92½°		RBM1

### Product Colour Code

Product	Colour	Code
Offset Bend 112½°		RBM2

### Product Colour Code

Product	Colour	Code
Shoe		RBM3

### Product Colour Code

Product	Colour	Code
67½° Branch		RYM1

### Product Colour Code

Product	Colour	Code
Pipe Clip		RCM1

### Product Colour Code

Product	Colour	Code
Pipe Socket		RSM1

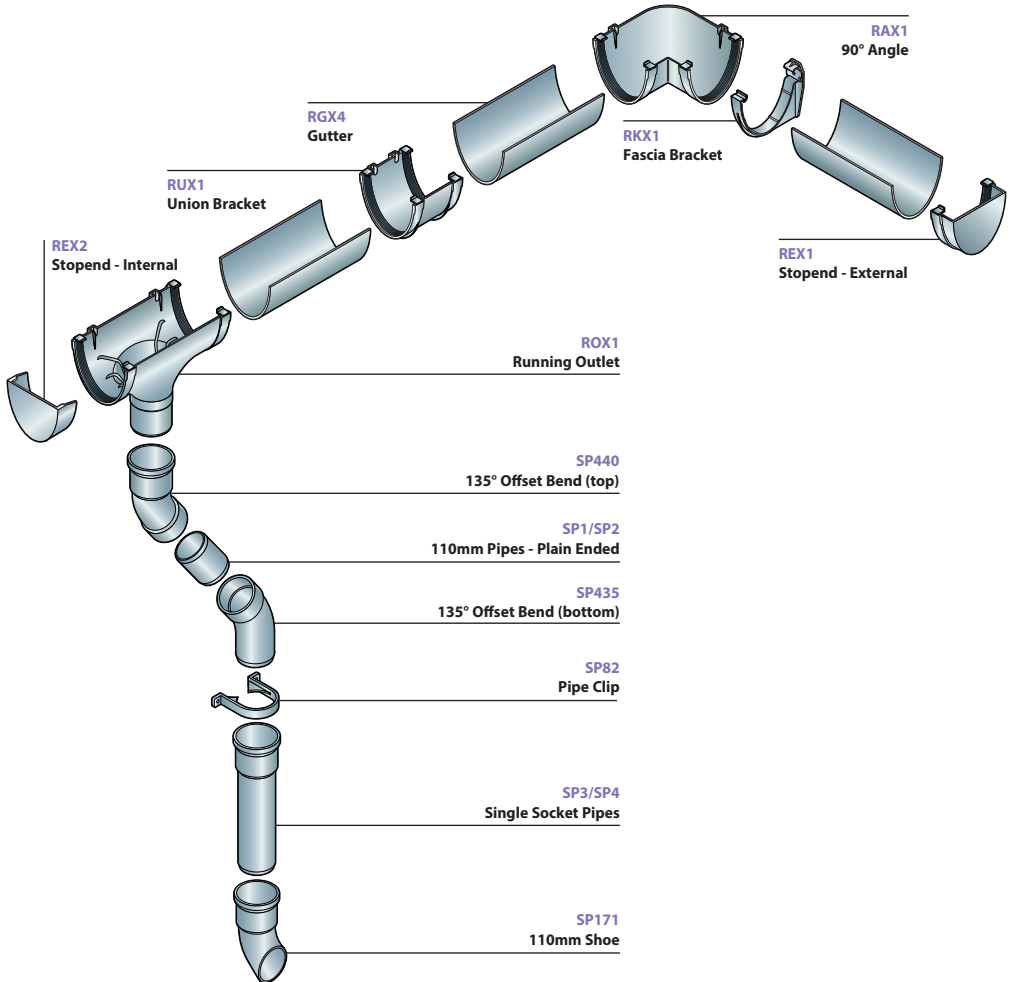
### Product Colour Code

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

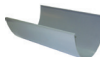


## Dimensions




## 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				
<b>Gutter</b>						
	4m	<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> RGX4	B	W	G	
B	W					
G						


Product	Colour	Code				
<b>Angle 90°</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> RAX1	B	W	G	
B	W					
G						

Product	Colour	Code				
<b>Running Outlet</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> ROX1	B	W	G	
B	W					
G						

Product	Colour	Code				
<b>Fascia Bracket</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> RKX1	B	W	G	
B	W					
G						

Product	Colour	Code				
<b>Union Bracket</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> RUX1	B	W	G	
B	W					
G						


Product	Colour	Code				
<b>External Stopend</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> REX1	B	W	G	
B	W					
G						


Product	Colour	Code				
<b>Internal Stopend</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> REX2	B	W	G	
B	W					
G						

## 110mm Round Downpipe and Fittings


Standard: BS EN 1329, BS EN 1453





Product	Colours	Code				
<b>Pipe - Plain Ended</b>						
	3m	<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP1	B	W	G	
B	W					
G						
	4m	<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP2	B	W	G	
B	W					
G						


Product	Colours	Code				
<b>Pipe - Single Socket</b>						
	3m	<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP3	B	W	G	
B	W					
G						
	4m	<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP4	B	W	G	
B	W					
G						


Product	Colours	Code				
<b>Shoe</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP171	B	W	G	
B	W					
G						

Product	Colours	Code				
<b>Pipe Clip</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP82	B	W	G	
B	W					
G						

Product	Colours	Code				
<b>Offset Bend 135° (45°)</b>						
 Ring Seal Top/ Solvent Bottom		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP440	B	W	G	
B	W					
G						
 Spigot/ Solvent Socket		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP435	B	W	G	
B	W					
G						

Product	Colours	Code				
<b>Hopper</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> RHX1	B	W	G	
B	W					
G						

Product	Colours	Code				
<b>92½° Soil Pipe Branch</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP190	B	W	G	
B	W					
G						

Product	Colours	Code				
<b>92½° Soil Pipe Access Bend</b>						
		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP169	B	W	G	
B	W					
G						

Product	Colours	Code				
<b>Access Pipe</b>						
 Socket/ Spigot		<table border="1"><tr><td>B</td><td>W</td></tr><tr><td>G</td><td></td></tr></table> SP274	B	W	G	
B	W					
G						

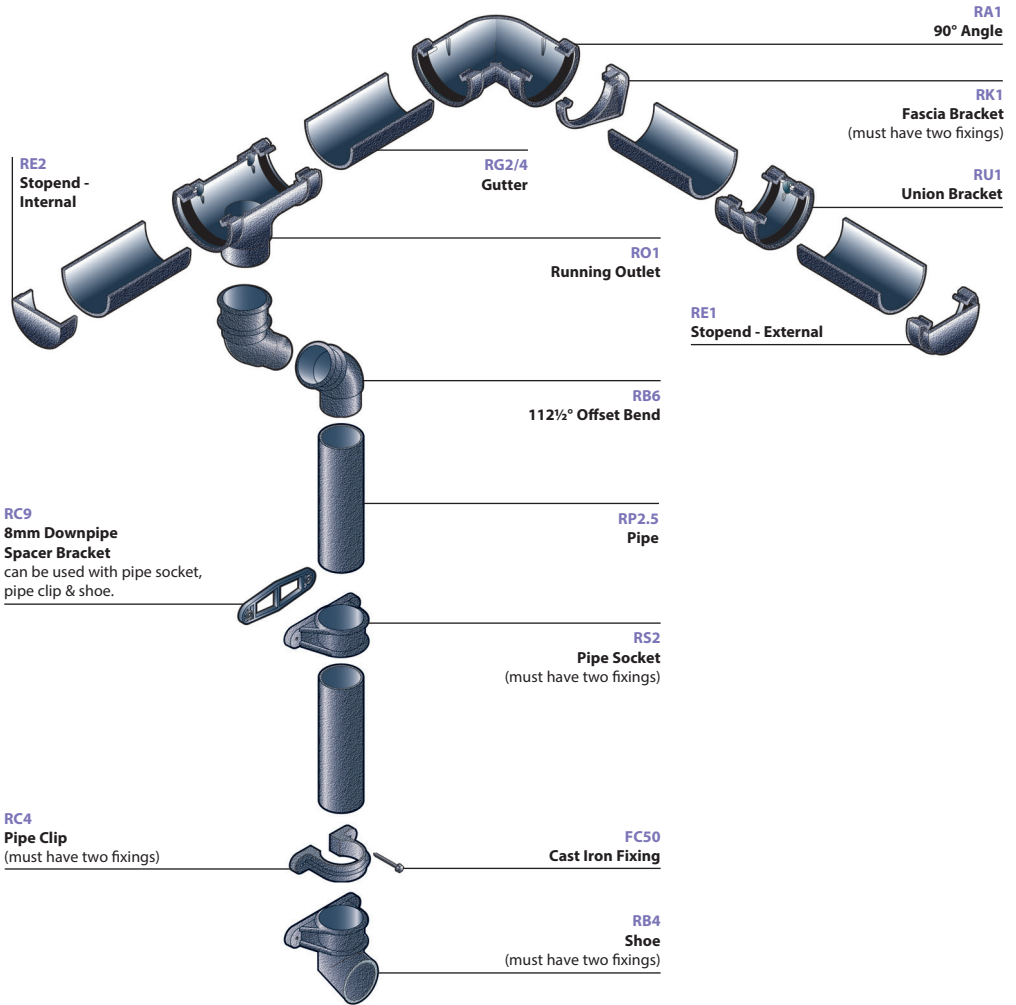
Important when ordering: Please add colour reference to code: **B** Black **W** White **G** Grey

# "CAST IRON" STYLE RAINWATER SYSTEMS



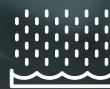
20 YEAR  
CAST IRON  
GUARANTEE

## Half Round 112mm/68mm Rainwater



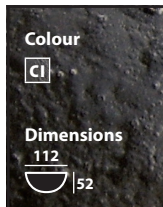
FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

# "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.



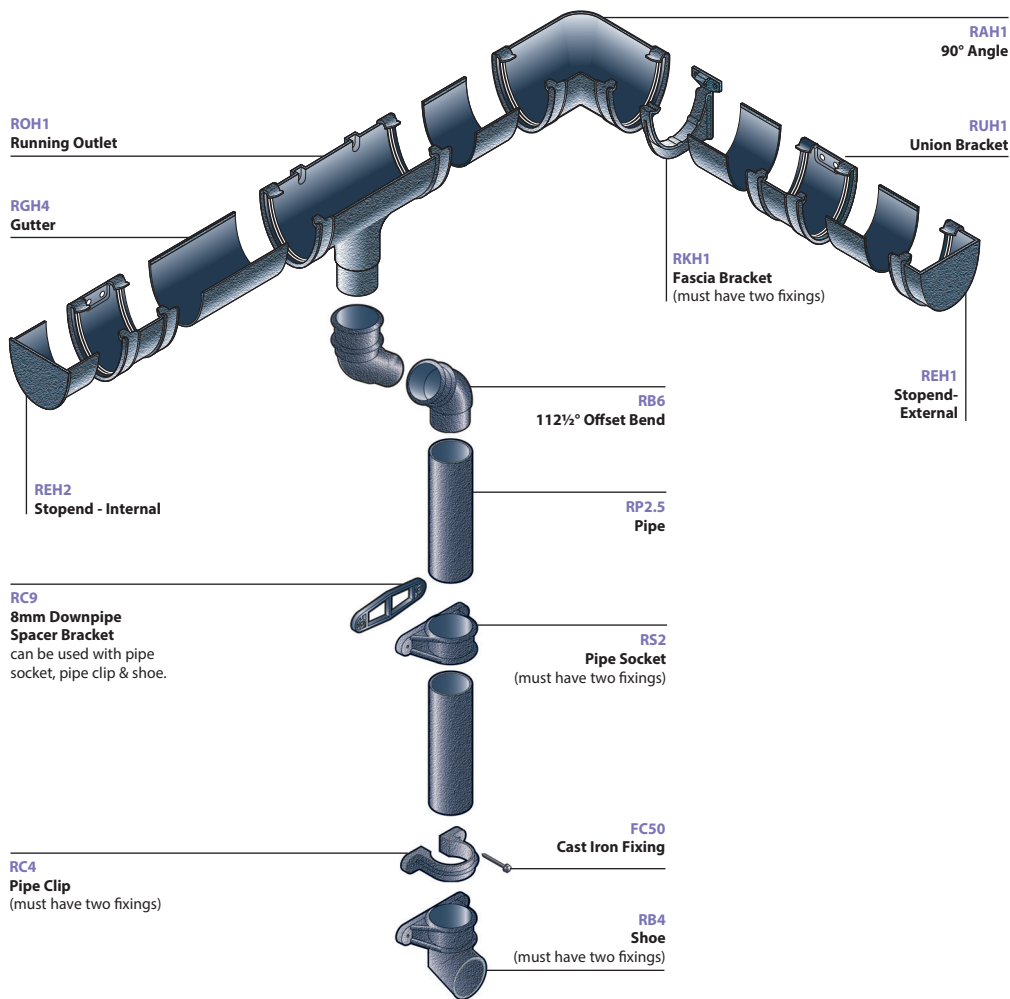
Important when ordering: Please add colour reference to code: **CI** "Cast Iron" Style

# "CAST IRON" STYLE RAINWATER SYSTEMS



20 YEAR  
CAST IRON  
GUARANTEE

## Hi-Cap 115mm/68mm Rainwater



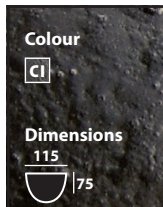
FloPlast recommend the use of lubricant on all gutter seals for ease of fitting and improved performance.

# "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
---------	--------	-------

<b>Gutter</b>		
	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
---------	--------	-------

<b>Fascia Bracket</b>		
	CI	RKH1

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

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

For 68mm Round Downpipe see page 26.



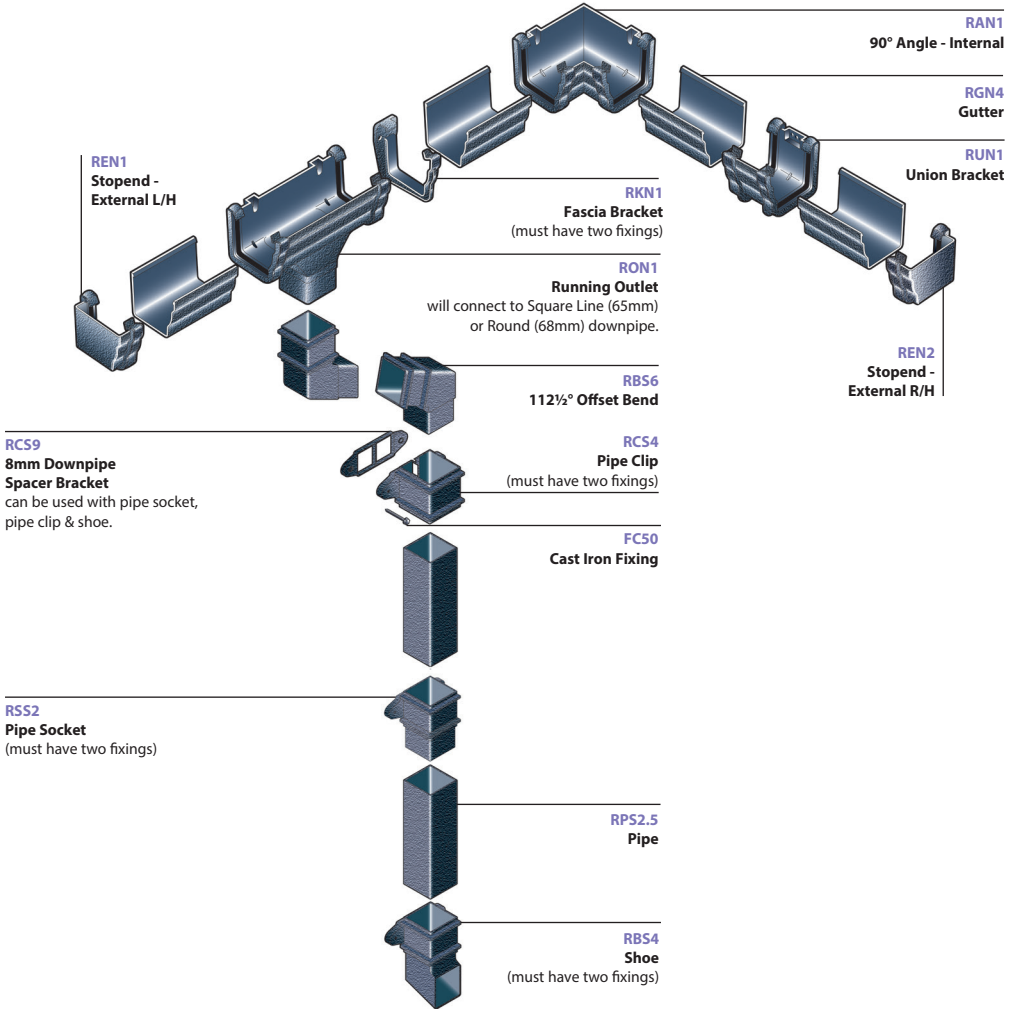
Important when ordering: Please add colour reference to code: **CI** "Cast Iron" Style

# "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

<b>Colour</b> 	<b>Features &amp; Benefits:</b>	
	<ul style="list-style-type: none"> <li>Traditional style ogee Hopper available.</li> <li>High capacity system.</li> <li>Water-tight seal and retaining clip pre-fitted for fast user friendly installation.</li> <li>Black fixing bolts available.</li> </ul>	<ul style="list-style-type: none"> <li>Extremely cost effective solution for old style refurbishment and new build installations.</li> <li>Running Outlet can be connected to 68mm or 65mm round downpipes.</li> <li>Can be used on Grade I listed properties.</li> </ul>
<b>Dimensions</b> 110 		

Product	Colour	Code
<b>Gutter</b> 	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
<b>Stopend - External</b> 	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

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

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

Product	Colour	Code
<b>Universal Hopper:</b> Connects to 65mm square and 68mm round downpipe		RH1
		
<b>Ogee Hopper:</b> Connects to 65mm square and 68mm round downpipe		
	With fixing lugs Requires 2 x FC50 fixings	RH4
<b>Rectangular Hopper:</b> 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%.		
<b>Cast Iron Fixings</b> C€		
		FC50
12 gauge x 50mm stainless steel fixings for "Cast Iron" Range (Socket fixings).		
<b>Fleur-de-Lis</b>		
	55mm	FL55
	75mm	FL70
<b>Tudor Rose</b>		
	40mm	TR55
	55mm	TR70
<b>Decorative Square</b>		
	40mm	DS55
	70mm	DS70
<b>Lion's Head</b>		
	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

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



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

<b>Pipe</b>		
	2.5m	 RPS2.5



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

<b>Offset Bend</b>		
	92½°	 RBS8
	112½°	 RBS6



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

<b>Shoe</b>		
	With fixing lugs Requires 2 x FC50 fixings	 RBS4

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

<b>Pipe Clip</b>		
	With fixing lugs Requires 2 x FC50 fixings	 RCS4



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

<b>Pipe Socket</b>		
	With fixing lugs Requires 2 x FC50 fixings	 RSS2



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

<b>67½° Branch</b>		
		 RYS2



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

<b>Universal Hopper:</b> Connects to 65mm square and 68mm round downpipe		
		RH1

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

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

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

<b>Rectangular Hopper:</b> 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
---------	--------	------

<b>Cast Iron Fixings</b> C€		
		FC50

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

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

<b>Fleur-de-Lis</b>		
	55mm	 FL55
	75mm	 FL70

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

<b>Tudor Rose</b>		
	40mm	 TR55
	55mm	 TR70

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

<b>Decorative Square</b>		
	40mm	 DS55
	70mm	 DS70

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

<b>Lion's Head</b>		
	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
<b>Rainwater Diverter</b>		
	<b>B</b> <b>W</b> <b>BR</b> <b>G</b> <b>AG</b> <b>CI</b>	RVS1


Connects to 65mm square and 68mm round downpipe

Product	Colour	Code
<b>Rainwater Diverter</b>		
	<b>B</b> <b>W</b> <b>BR</b> <b>G</b>	RVH1

Connects to 80mm round downpipe


Product	Colour	Code
<b>MiniFlo Rainwater Diverter</b>		
	<b>B</b> <b>W</b> <b>BR</b> <b>G</b>	RVM1


Connects to 50mm round downpipe

Product	Colour	Code
<b>Connector Kit</b>		
	<b>B</b> <b>W</b>	RVS2


Not kitemarked


## EcoFlo Water Storage Systems

Product	Code
<b>100L Slim Water Butt</b>	
	WB100

Product	Code
<b>100L Slim Water Butt Stand</b>	
	ST100

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

Product	Code
<b>210L Water Butt</b>	
	WB200

Product	Code
<b>200L Water Butt Stand</b>	
	ST200

200L WATER BUTT	
<ul style="list-style-type: none"> <li>210L capacity.</li> <li>Traditional shape water butt with a large capacity.</li> <li>Supplied with tap and lockable lid.</li> <li>Manufactured in the UK from recycled materials.</li> </ul>	
<b>Dimensions</b>	
<b>Water Butt:</b>	<b>Stand:</b>
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
<b>4m GutterBrush:</b> Debris eliminator	<b>B</b> <b>W</b>	GB4
		
<b>FloGuard:</b> Leaf Protection System 5m Pack	<b>B</b>	FG1
		
<b>Balloon:</b> Leaf Protection System		
	Outlet Guard <b>B</b>	OG1
<b>DrainGuard</b>		
	Fits round and square downpipe <b>B</b>	DG1

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

## Ancillaries

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

Product	Colour	Code
<b>Universal Rise &amp; Fall Bracket</b>		
	N/A	RF1
Not suitable for XtraFlo		
<b>Rafter Bracket Top Fix</b>		
	N/A	RR1
<b>Rafter Bracket Side Fix</b>		
	N/A	RR2
<b>Universal Rainwater Adaptor</b>		
	<b>B</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](http://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.

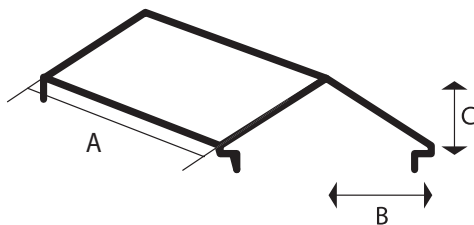
### Roof Area

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 <sup>2</sup> )		Gutter Flow (litres/sec)		Roof Area (m <sup>2</sup> )	
	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056
<b>Half Round</b> 68mm Circular Downpipe	0.92	0.82	44	40	1.17	1.05	56	50
<b>Square Line</b> 65mm Square Downpipe	1.70	1.53	81	73	2.00	1.80	96	86
<b>Hi-Cap</b> 68mm Circular Downpipe	2.05	1.84	98	88	2.56	2.30	123	111
<b>Hi-Cap</b> 80mm Circular Downpipe	2.25	2.02	108	97	2.79	2.51	134	121
<b>Niagara Ogee</b> 65mm Square Downpipe	2.40	2.16	115	104	2.90	2.61	139	125
<b>Niagara Ogee</b> 80mm Circular Downpipe	2.64	2.37	127	114	3.19	2.87	153	138
<b>XtraFlo</b> 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 <sup>2</sup> )		Gutter Flow (litres/sec)		Roof Area (m <sup>2</sup> )	
	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056	Max flow rate	BS 12056
<b>Half Round</b> 68mm Circular Downpipe	1.80	1.62	86	77	2.60	2.34	125	113
<b>Square Line</b> 65mm Square Downpipe	3.41	3.06	163	147	3.95	3.55	189	170
<b>Hi-Cap</b> 68mm Circular Downpipe	3.80	3.42	182	164	5.00	4.05	240	216
<b>Hi-Cap</b> 80mm Circular Downpipe	4.18	3.76	200	180	5.50	4.95	264	238
<b>Niagara Ogee</b> 65mm Square Downpipe	4.50	4.05	216	194	5.30	4.77	254	229
<b>Niagara Ogee</b> 80mm Circular Downpipe	4.95	4.45	237	213	5.83	5.24	279	251
<b>XtraFlo</b> 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 <sup>2</sup> ) 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><b>Half Round</b> and "Cast Iron" Style <b>Half Round</b></p>	<p><b>Hi-Cap</b> and "Cast Iron" Style <b>Hi-Cap</b></p>	<p><b>MiniFlo</b></p>
<p><b>Square Line</b></p>	<p><b>Niagara Ogee</b> and "Cast Iron" Style <b>Niagara Ogee</b></p>	<p><b>XtraFlo</b></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
<b>Brett Martin</b>	✗	✓	✗	✓	✓	✓	✓	✓	✗	✓	✗	✗
<b>Osma</b>	✗	✓	✗	✗	✓	✓	✓	✓	✗	✗	✗	✗
<b>Polypipe</b>	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗
<b>Terrain</b>	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Marley</b>	✗	✓	✗	✓	✓	✓	✓	✓	✗	✓	✗	✗
<b>Hunter</b>	✗	✓	✗	✓	✗	✓ (Tight fit)	✓	✓ (Tight fit)	✓	✓	✗	✗
<b>Swish</b>	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✗	✗
<b>Kalsi</b>	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗
<b>Freefoam</b>	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗

**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

### Contact Details:

FloPlast Limited  
 Castle Road  
 Eurolink Business Park  
 Sittingbourne  
 Kent  
 ME10 3FP  
 United Kingdom

### Tel

01795 431731

### Sales Office

01795 421422

### Fax

01795 431188

### E-mail

sales@floplast.co.uk

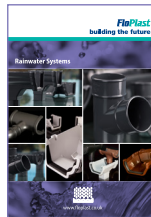
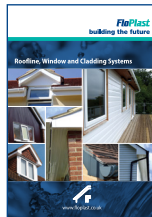
### Website

www.floplast.co.uk



April 2021

### Brochures Available:



Roofline, Window and  
Cladding Systems



Rainwater  
Systems



Soil & Waste  
Systems



Underground Drainage  
Systems



MDPE  
Systems



Hot & Cold  
Plumbing Systems