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 45001Certificate 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

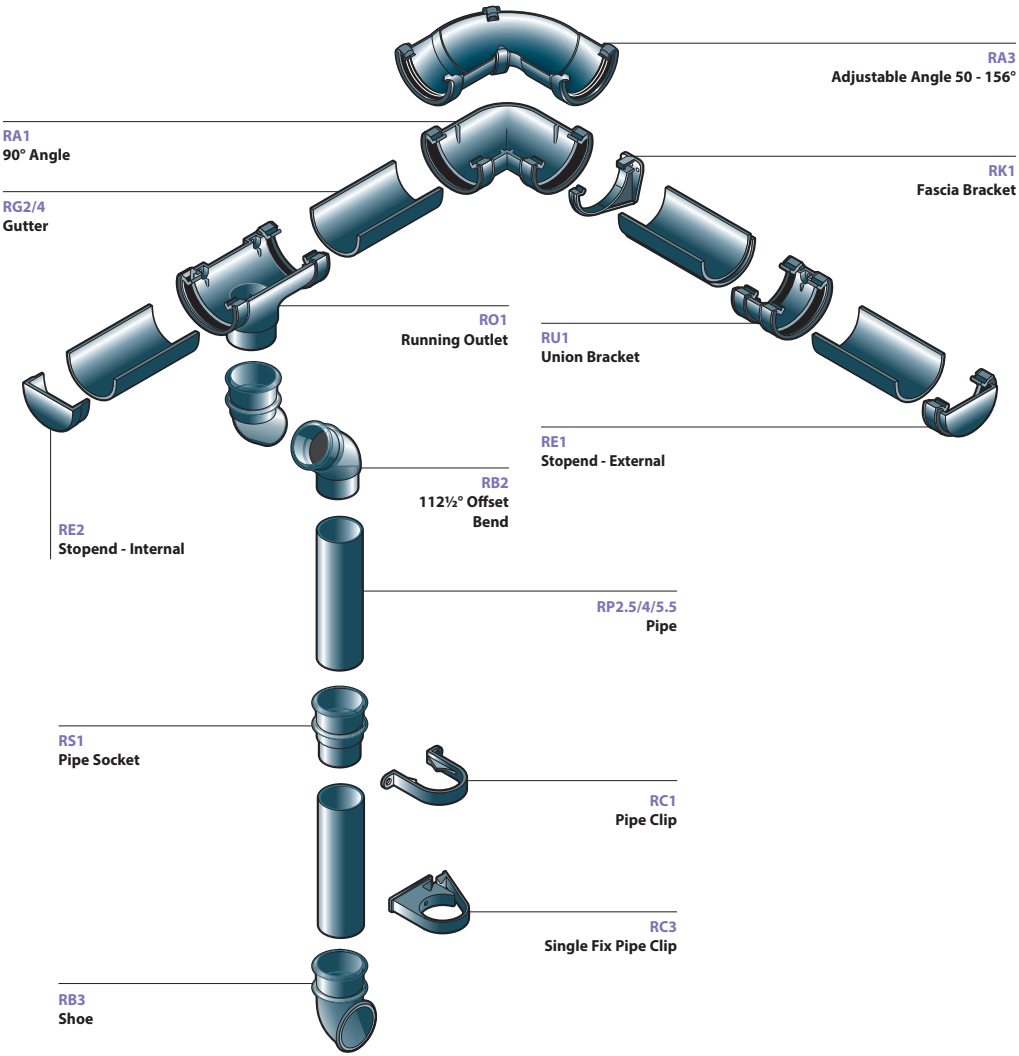
- Suitable for all types of buildings including domestic, commercial and industrial.
- Components have a consistent finish and colour and are low maintenance.
- Tough and durable, yet lightweight for ease of installation, they will withstand normal ladder weight.
- High gloss finish with blemish free 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.

Half Round 112mm

Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour

B W BR G AG

Dimensions

112 / 52

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 W BR G	RG2
	3m	B W BR G	RG3
	4m	B W BR G AG	RG4
Angle			
	90°	B W BR G AG	RA1
	135°	B W BR G AG	RA2
Adjustable Angle 50° - 156°			
		B W BR	RA3
Angle - Any Degree			
		B W BR G AG	RA9
FloPlast will fabricate any non-standard angle to special order.			
Running Outlet			
		B W BR G AG	RO1
Stopend Outlet			
		B W BR G AG	RO2

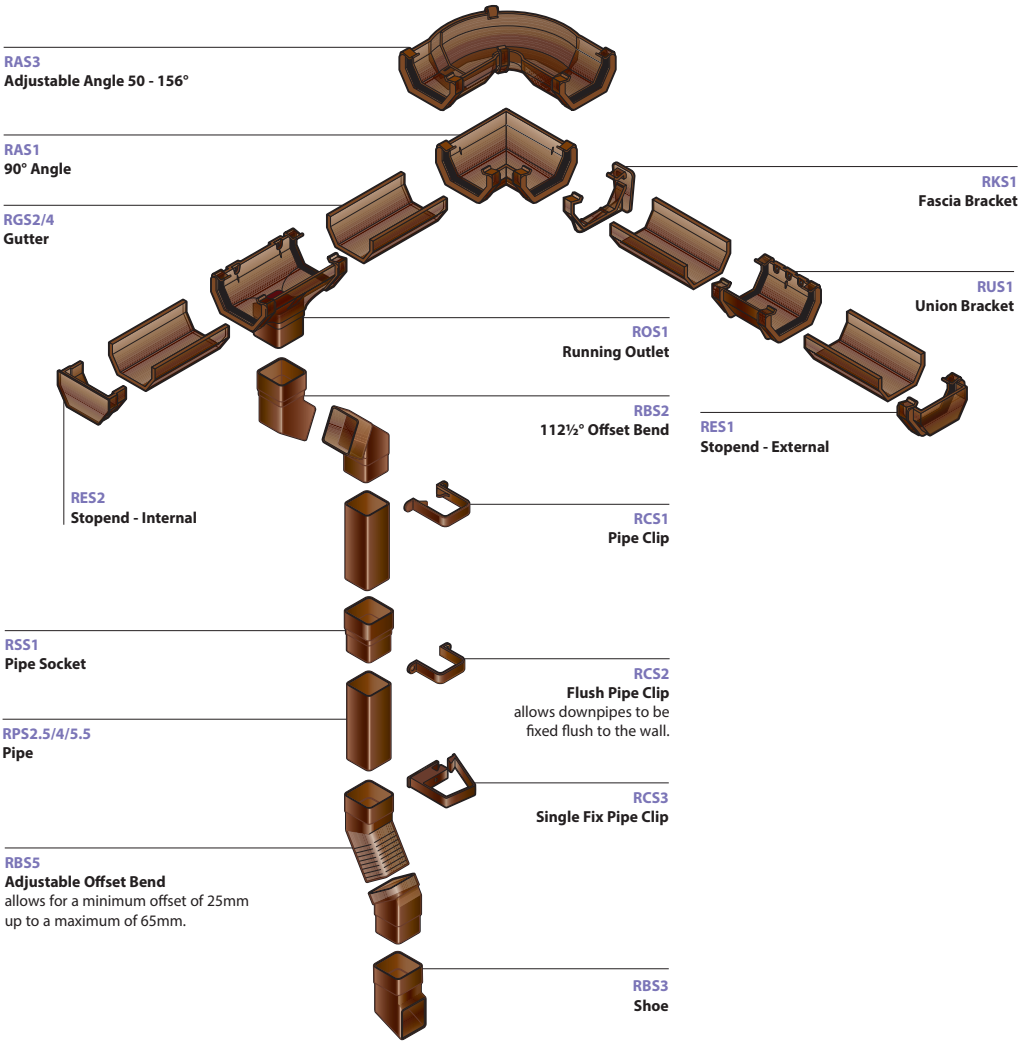
Product		Colour	Code
Stopend			
	External	B W BR G AG	RE1
	Internal	B W BR G AG	RE2
Fascia Bracket			
		B W BR G AG	RK1
Union Bracket			
		B W BR G AG	RU1
To Cast Iron Ogee Gutter Adaptors			
	R/H	B W	RD3
	L/H	B W	RD4
To Half Round Cast Iron Adaptor			
		B W BR G	RD5

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.

Square Line 114mm

Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour

B W BR AG

Dimensions

114 / 60

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.

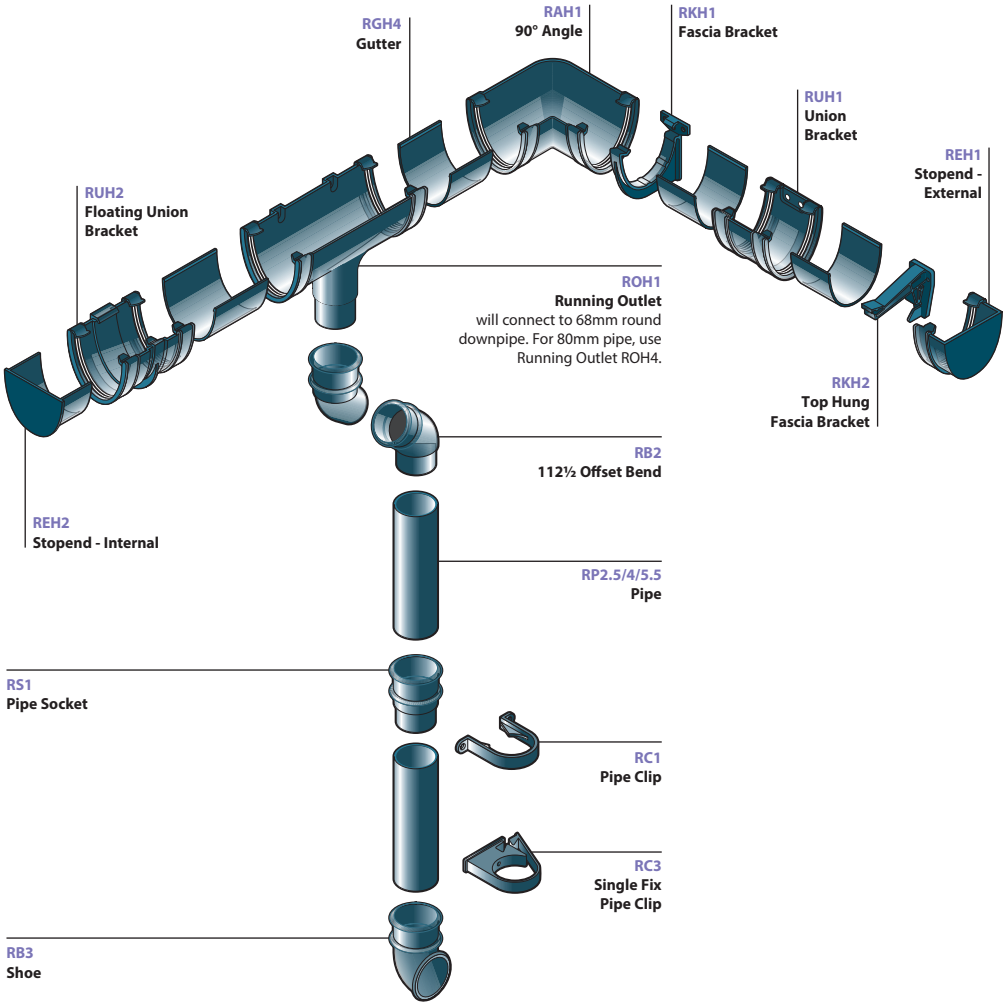
Product		Colour	Code
Gutter			
	2m	B W BR	RGS2
	3m	B W BR	RGS3
	4m	B W BR AG	RGS4
Angle			
	90°	B W BR AG	RAS1
	135°	B W BR AG	RAS2
Adjustable Angle 50° - 156°			
		B W BR	RAS3
Angle - Any Degree			
		B W BR AG	RAS9
FloPlast will fabricate any non-standard angle to special order.			
Running Outlet			
		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			
	Ogee R/H	B W BR	RDS3
	Ogee 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.

Hi-Cap 115mm

Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour

B W BR G AG

Dimensions



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

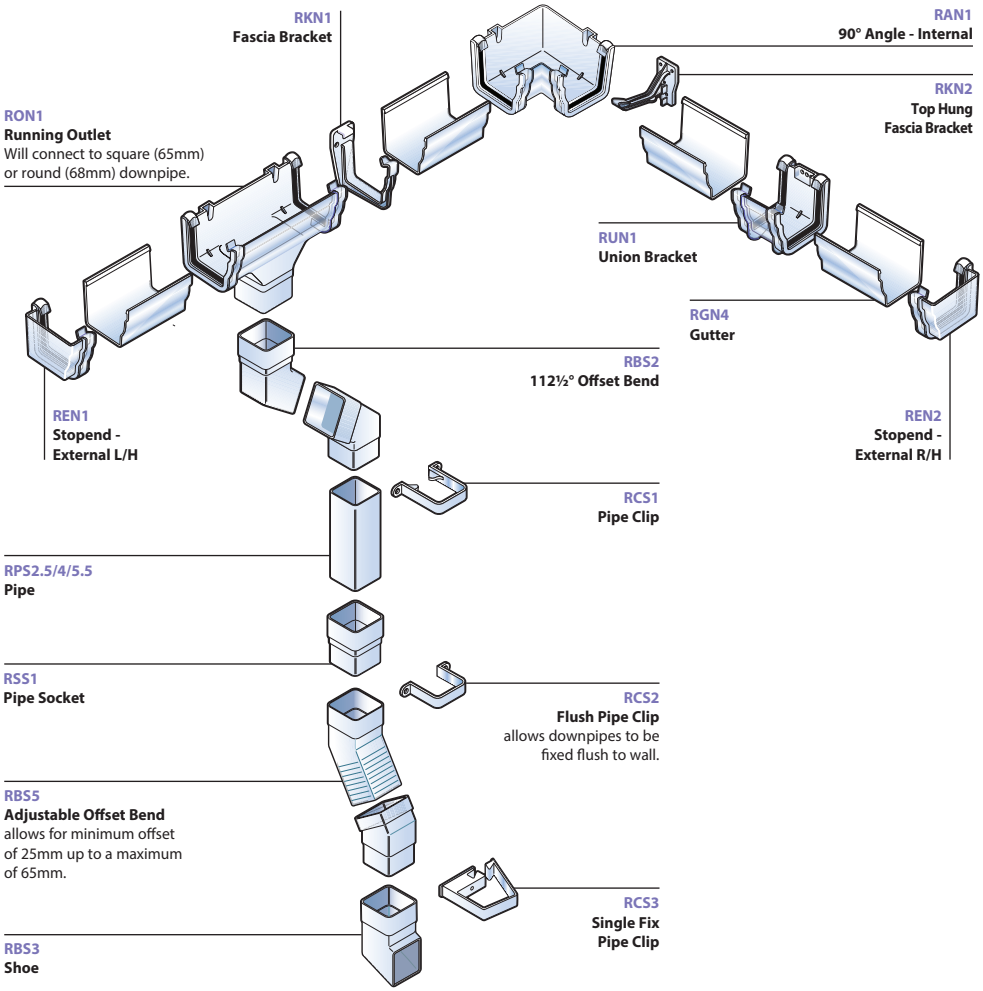
Product		Colour	Code
Stopend			
	External	B W BR G AG	REH1
	Internal	B W BR G AG	REH2
Fascia Bracket			
		B W BR G AG	RKH1
	Top Hung	B W	RKH2
Union Bracket			
		B W BR G AG	RUH1
Floating Union Bracket			
		B W	RUH2
Gutter Adaptors			
	Half Round	B W BR	RHR3
	Square Line	B W BR	RHS3

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.

Niagara Ogee 110mm

Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

Colour

B W BR AG

Dimensions

110 / 80

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

68mm Round Downpipe and Fittings

Standard: BS EN 12200 -1

Colour
B W BR G AG

Dimensions
68

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			
	92½°	B W BR G AG	RB1
	112½°	B W BR G AG	RB2
67½° Branch			
		B W BR G AG	RY1
Shoes			
		B W BR G AG	RB3
	With fixing lugs	B W	RB4[1]
Pipe Sockets			
		B W BR G AG	RS1
	With fixing lugs	B W	RS2[3]

Product		Colour	Code
Pipe Clips			
		B W BR G AG	RC1
	Single Fix	B W BR G	RC3
	With fixing lugs	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.

CI 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

65mm Square Downpipe and Fittings

Standard: BS EN 12200 -1

KM 501316
BS EN 12200-1

Colour
B W
BR AG

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
Pipe			
	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
Pipe Clips			
		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.

cl 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

80mm Round Downpipe and Fittings

Standard: BS EN 12200 -1

Colour
B W
BR G

Dimensions
80

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



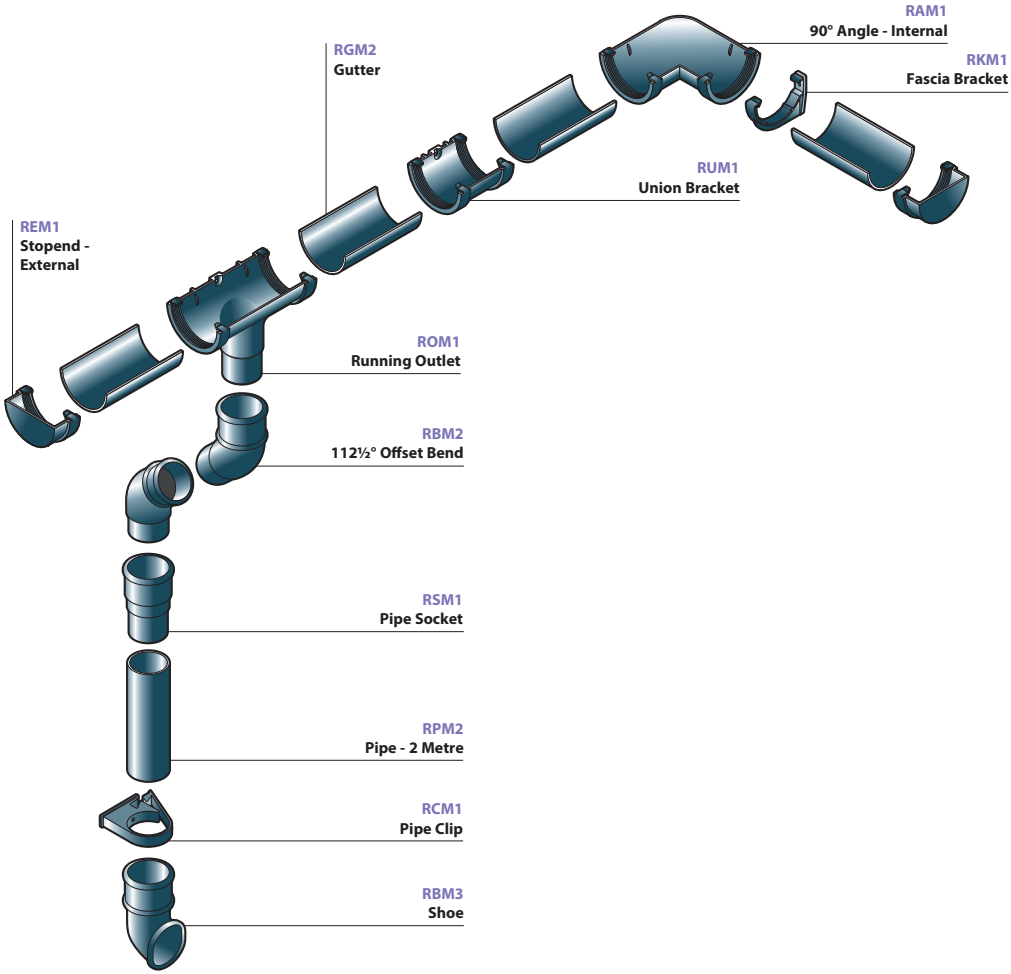
Spares Gutter Seals

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.

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

Colour
B W
BR G

Dimensions
76 / 38 — 50

Features & Benefits:

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

Product	Colour	Code
Gutter		
 2m	B W BR G	RGM2
Angle		
 90°	B W BR G	RAM1
 135°	B W BR G	RAM2
Running Outlet		
	B W BR G	ROM1

Product	Colour	Code
Stopend Outlet		
	B W BR G	ROM2
Stopend		
	B W BR G	REM1
Fascia Bracket		
	B W BR G	RKM1

Product	Colour	Code
Union Bracket		
	B W BR G	RUM1
Half Shed Pack - Black Only		
		MS1

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

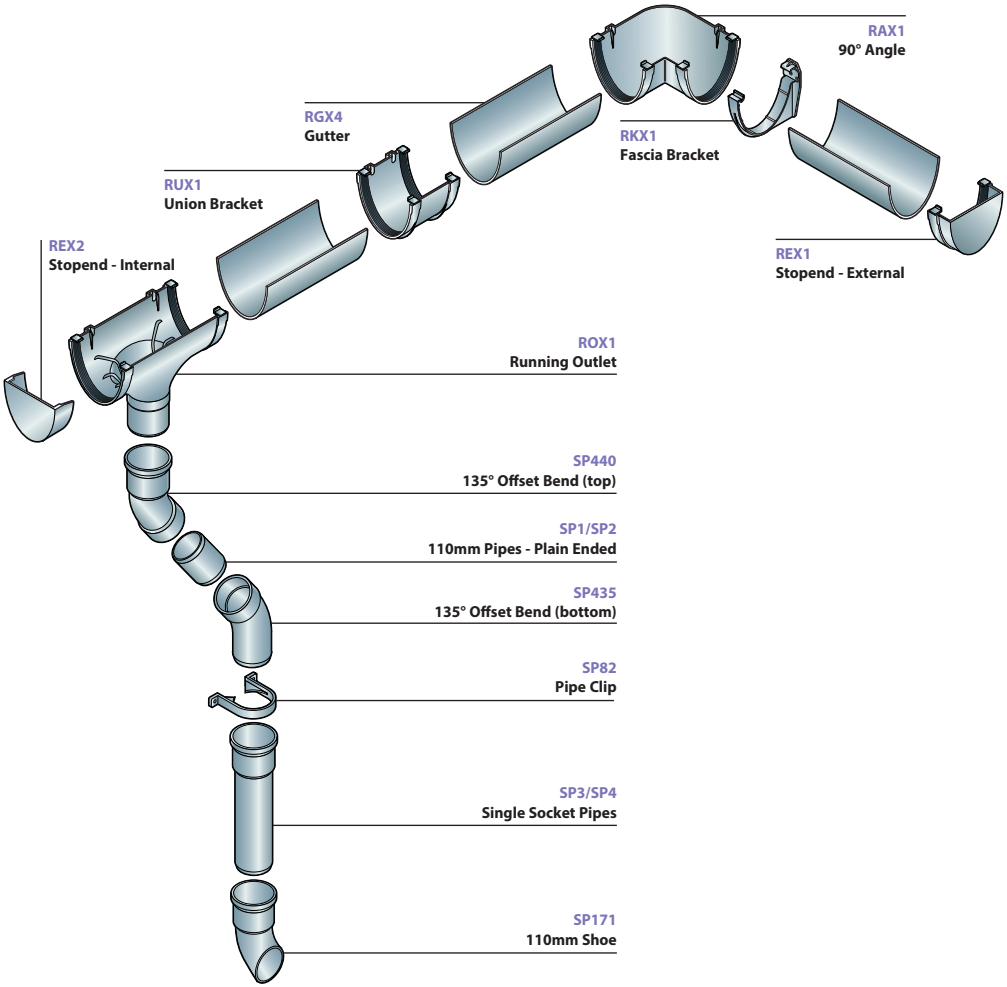
Product	Colour	Code
Pipe		
 2m	B W BR G	RPM2
Offset Bend 92½°		
	B W BR G	RBM1
Offset Bend 112½°		
	B W BR G	RBM2

Product	Colour	Code
Shoe		
	B W BR G	RBM3
67½° Branch		
	B W BR G	RYM1
Pipe Clip		
	B W BR G	RCM1

Product	Colour	Code
Pipe Socket		
	B W BR G	RSM1
MiniFlo Rainwater Diverter		
	B W BR G	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.

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

Colour
B W G

Dimensions
170 / 108 — 110

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	B W G	RGX4
Angle 90°		
	B W G	RAX1
Running Outlet		
	B W G	ROX1

Product	Colour	Code
Fascia Bracket		
	B W G	RKX1
Union Bracket		
	B W G	RUX1
External Stopend		
	B W G	REX1

Product	Colour	Code
Internal Stopend		
	B W G	REX2

110mm Round Downpipe and Fittings Standard: BS EN 1329, BS EN 1453

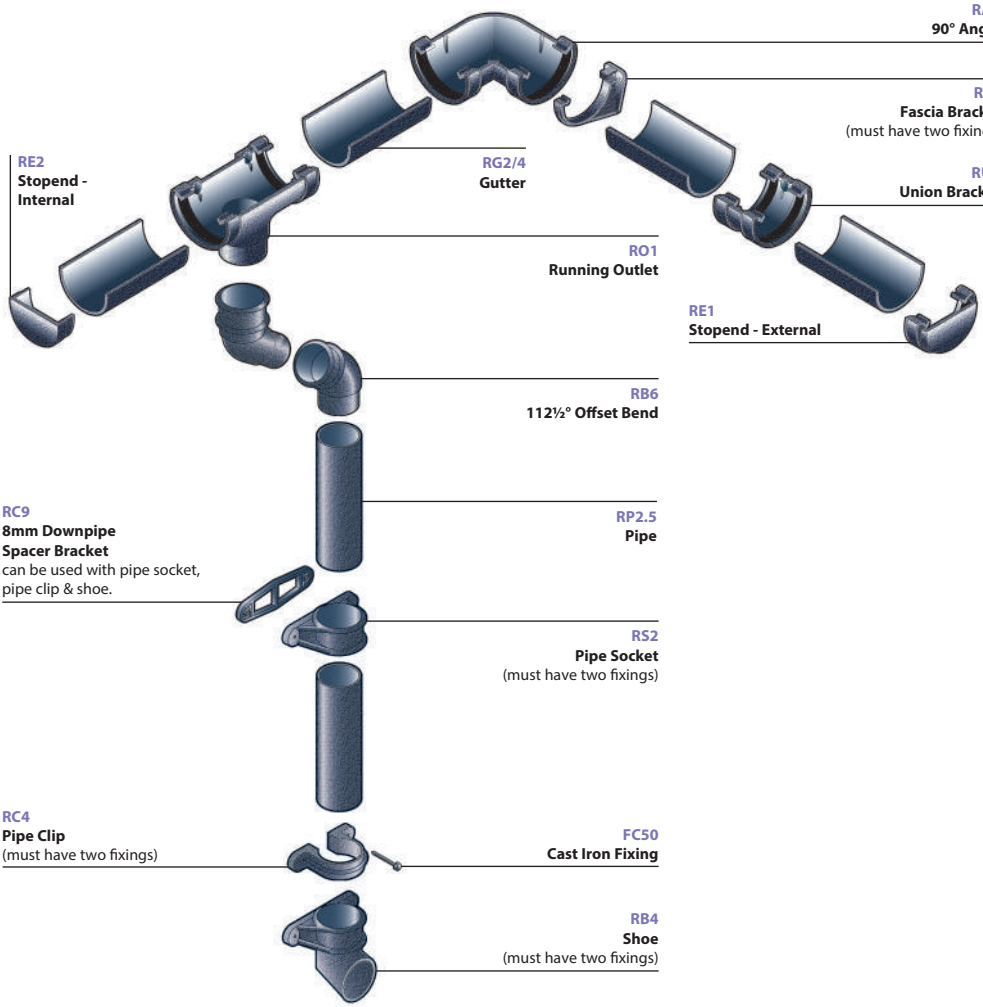
Product	Colours	Code
Pipe - Plain Ended		
 3m	B W G	SP1
4m	B G	SP2
Pipe - Single Socket		
 3m	B W G	SP3
4m	B W G	SP4
Shoe		
	B W G	SP171

Product	Colours	Code
Pipe Clip		
	B W G	SP82
Offset Bend 135° (45°)		
 Ring Seal Top/ Solvent Bottom	B W G	SP440
 Spigot/ Solvent Socket	B W G	SP435
Hopper		
	B W G	RHX1

Product	Colours	Code
92½° Soil Pipe Branch		
	B W G	SP190
92½° Soil Pipe Access Bend		
	B W G	SP169
Access Pipe		
 Socket/ Spigot	B W G	SP274

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

Half Round 112mm/68mm Rainwater



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

Half Round 112mm

Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

20 YEAR CAST IRON GUARANTEE

Colour
CI

Dimensions
112
52

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			
	2m	CI	RG2
	4m	CI	RG4
Angle			
	90°	CI	RA1
	135°	CI	RA2
Angle - Any Degree			
		CI	RA9
FloPlast will fabricate any non-standard angle to special order			
Running Outlet			
	68mm Round	CI	RO1
Stopend Outlet			
	68mm Round	CI	RO2
Stopend			
	External	CI	RE1
	Internal	CI	RE2

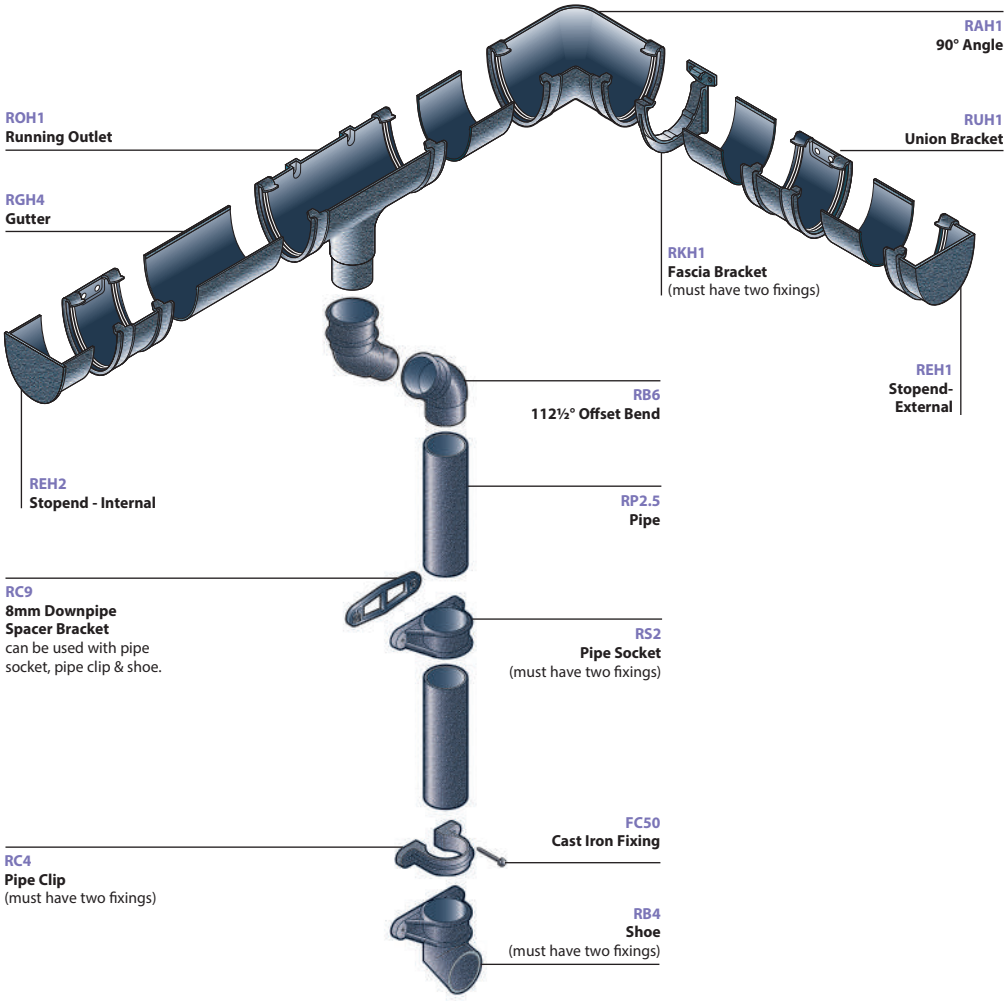
Product		Colour	Code
Fascia Bracket			
		CI	RK1
Union Bracket			
		CI	RU1
To Ogee Cast Iron Adaptors			
	Ogee R/H	CI	RD3
	Ogee L/H	CI	RD4
	To Half Round	CI	RD5

For 68mm Round Downpipe see page 26.



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

Hi-Cap 115mm/68mm Rainwater



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

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

20 YEAR CAST IRON GUARANTEE

Colour
CI

Dimensions
115
75

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			
	90°	CI	RAH1
	135°	CI	RAH2
Angle - Any Degree			
		CI	RAH9
FloPlast will fabricate any non-standard angle to special order.			
Running Outlet			
	68mm Round	CI	ROH1
Stopend Outlet			
	68mm Round	CI	ROH2
External Stopend			
	External	CI	REH1
Internal Stopend			
	Internal	CI	REH2

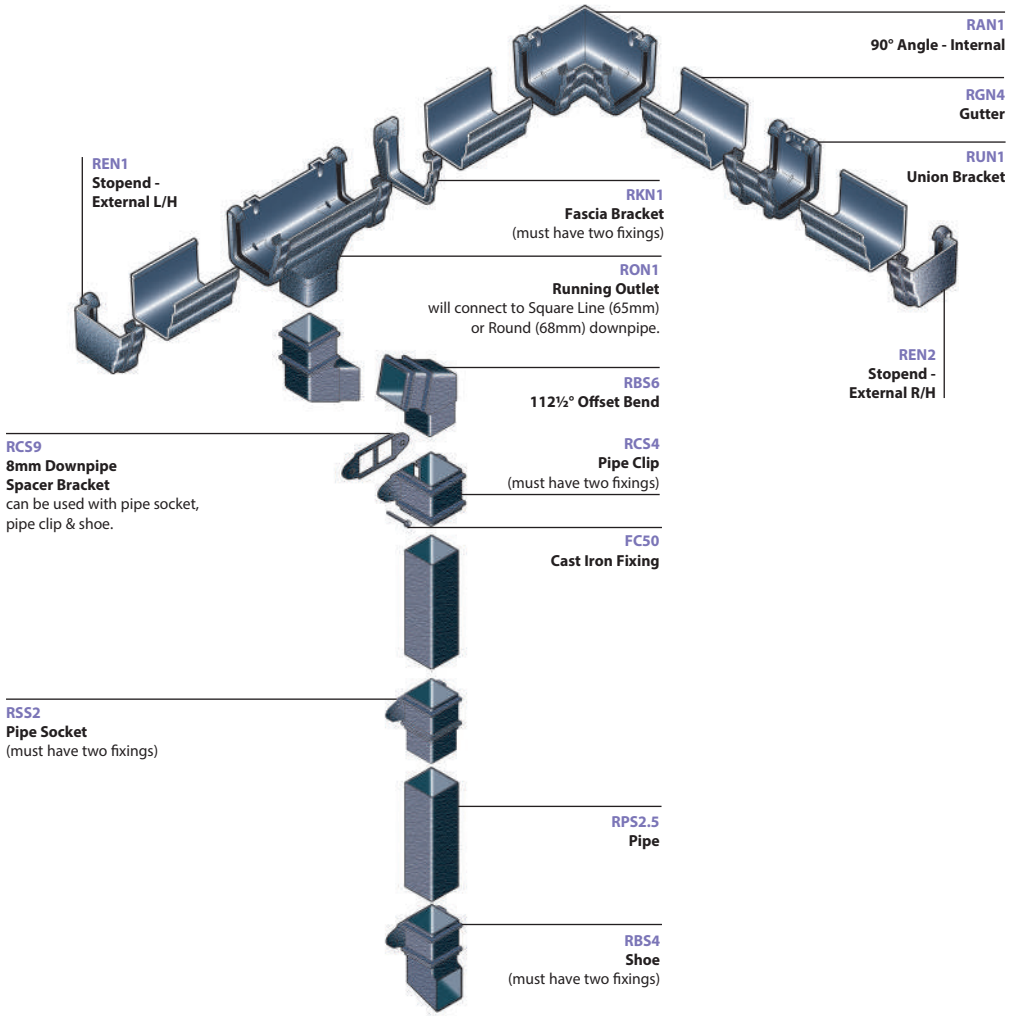
Product	Colour	Price
Fascia Bracket		
	CI	RKH1
Union Bracket		
	CI	RUH1

For 68mm Round Downpipe see page 26.



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

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

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

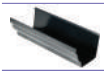
20 YEAR CAST IRON GUARANTEE

Colour
CI

Dimensions
110

Features & Benefits:

- 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.
- Extremely cost effective solution for old style refurbishment and new build installations.
- Running Outlet can be connected to 68mm or 65mm round downpipes.
- Can be used on Grade I listed properties.

Product		Colour	Code
Gutter			
	3m	CI	RGN3
	4m	CI	RGN4
90° Angle			
	Internal	CI	RAN1
	External	CI	RAN2
135° Angle			
	Internal	CI	RAN3
	External	CI	RAN4
Angle - Any Degree			
		CI	RAN9
FloPlast will fabricate any non-standard angle to special order.			
Running Outlet - Multi Outlet			
		CI	RON1
Stopend Outlet - 65mm Square			
	L/H	CI	RON2
	R/H	CI	RON3

Product		Colour	Code
Stopend - External			
	L/H	CI	REN1
	R/H	CI	REN2
Stopend - Internal			
	L/H	CI	REN3
	R/H	CI	REN4
Fascia Bracket			
		CI	RKN1
Union Bracket			
		CI	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: CI "Cast Iron" Style

68mm Round Downpipe and Fittings

Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

20 YEAR CAST IRON GUARANTEE

Colour
CI

Dimensions
68

Features & Benefits:

- Traditional round profile.
- Can be used with Half Round, 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.
- Can be used on Grade I listed properties.

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

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

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

65mm Square Downpipe and Fittings

Standard: BS EN 607, BS EN 12200 -1, BS EN 1462

20 YEAR CAST IRON GUARANTEE

Colour
CI

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.
- Can be used on Grade I listed properties.

Product		Colour	Code
Pipe			
	2.5m	CI	RPS2.5
Offset Bend			
	92½°	CI	RBS8
	112½°	CI	RBS6
Shoe			
	With fixing lugs Requires 2 x FC50 fixings	CI	RBS4
Pipe Clip			
	With fixing lugs Requires 2 x FC50 fixings	CI	RCS4
Pipe Socket			
	With fixing lugs Requires 2 x FC50 fixings	CI	RSS2
67½° Branch			
		CI	RYS2

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

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

EcoFlo Rainwater Diverters Standard: BS EN 12200 -1

KM 501316
BS EN 12200-1

Product	Colour	Code
Rainwater Diverter		
	B W BR G AG CI	RVS1
Connects to 65mm square and 68mm round downpipe		
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		
Connector Kit		
	B W	RVS2
Not kitemarked		

EcoFlo Water Storage Systems

Product	Code
100L Slim Water Butt	
	WB100
100L Slim Water Butt Stand	
	ST100

Product	Code
210L Water Butt	
	WB200
200L Water Butt Stand	
	ST200

100L SLIM WATER BUTT

- 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

200L WATER BUTT

- 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

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 3000L 5000L 7500L	S1500 S3000 S5000 S7500
Vehicle Duty Entrance Shaft and Lid		
	635mm	VDL1

Product	Size	Code
½" Flexible Suction Hose		
	40m	H40
Level Sensor		
CE		LS1
Identification Tape and Label Pack		
Rainwater Garden Tap WC Cistern Washing Machine		ID1
110mm Non-Return Valve - Single Flap		
CE		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





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.

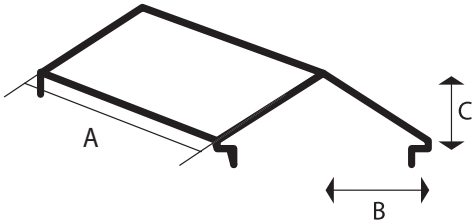
In some cases lighter coloured systems may require cleaning. Wash down with a solution of warm soapy water, in severe cases a non-abrasive kitchen cream cleaner should be used.

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

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

B = Half width of gable end or hip

C = Vertical measurement from eaves to apex



Rainwater System Installation

1. 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.
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 the 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 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.
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 the next gutter length in order to build up a gutter run. Use a stopend 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, 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 Flow (litres/sec) Max flow rate	Gutter Fixed Level: Gutter Flow (litres/sec) BS 12056	Gutter Fixed Level: Roof Area (m^2) Max flow rate	Gutter Fixed Level: Roof Area (m^2) BS 12056	Gutter Fixed at 1:350 fall: Gutter Flow (litres/sec) Max flow rate	Gutter Fixed at 1:350 fall: Gutter Flow (litres/sec) BS 12056	Gutter Fixed at 1:350 fall: Roof Area (m^2) Max flow rate	Gutter Fixed at 1:350 fall: Roof Area (m^2) 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 Flow (litres/sec) Max flow rate	Gutter Fixed Level: Gutter Flow (litres/sec) BS 12056	Gutter Fixed Level: Roof Area (m^2) Max flow rate	Gutter Fixed Level: Roof Area (m^2) BS 12056	Gutter Fixed at 1:350 fall: Gutter Flow (litres/sec) Max flow rate	Gutter Fixed at 1:350 fall: Gutter Flow (litres/sec) BS 12056	Gutter Fixed at 1:350 fall: Roof Area (m^2) Max flow rate	Gutter Fixed at 1:350 fall: Roof Area (m^2) 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 -8ºC and +40ºC 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

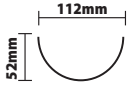
The carrying capacity of gutters varies under differing conditions. The main variables are whether or not the gutter is fitted to a fall or level and whether the outlet is placed in the centre or at one end of the gutter run.

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.

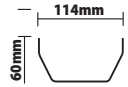
The carrying capacities in litres per second for gutters, taking into account the major variables, are specified in the performance table on page 33.

Design Data All gutter dimensions are nominal

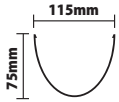
Half Round and "Cast Iron" Style Half Round



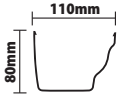
Square Line



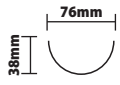
Hi-Cap and "Cast Iron" Style Hi-Cap



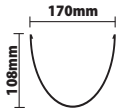
Niagara Ogee and "Cast Iron" Style Niagara Ogee



MiniFlo



XtraFlo



Rainwater System Compatibility

FloPlast System:	Xtraflo		Niagara		Hi-Cap		Half Round		Square		MiniFlo	
Competitor	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.

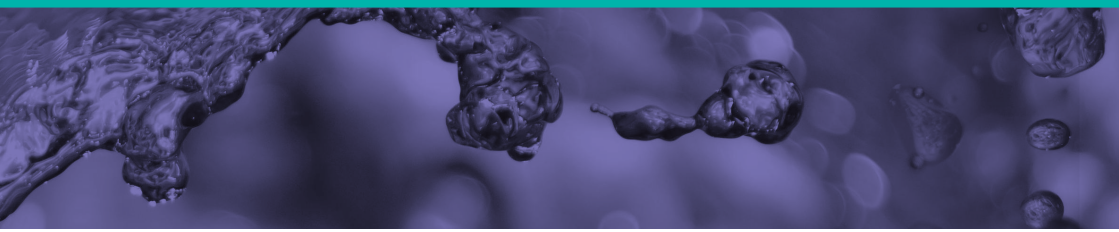
Fittings are generally supplied in plastic bags and should be stored away from direct sunlight. If they have to be stored outside, the bags should be opened to prevent temperature build-up.

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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MDPE Systems

Hot & Cold Plumbing Systems