

FloPlast
building the future

Rainwater Systems



www.floplast.co.uk



Introduction to FloPlasts 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, cellular foam and rigid PVC-U building profiles.

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 50001:2011 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 and BS 4514 (downpipes and sittings)
- BS EN 607 (gutters and fittings)
- BS EN 1462 (eaves brackets)

FloPlast Rainwater Systems have been awarded the prestigious Kitemark. License No. KM 501316.



System Features

- Cost effective solution.
- Practical rainwater handling.
- Consistent self-finish and colour.
- Tough and durable, yet lightweight.
- High gloss finish.
- Provides solutions to all installation requirements.
- Suitable for all types of buildings including domestic, commercial and industrial.



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.

Product Guarantees

Rainwater systems come with a 10 year performance and colour guarantee for the black, white, brown, grey and anthracite grey ranges, and 20 years for the “Cast Iron” Styles.

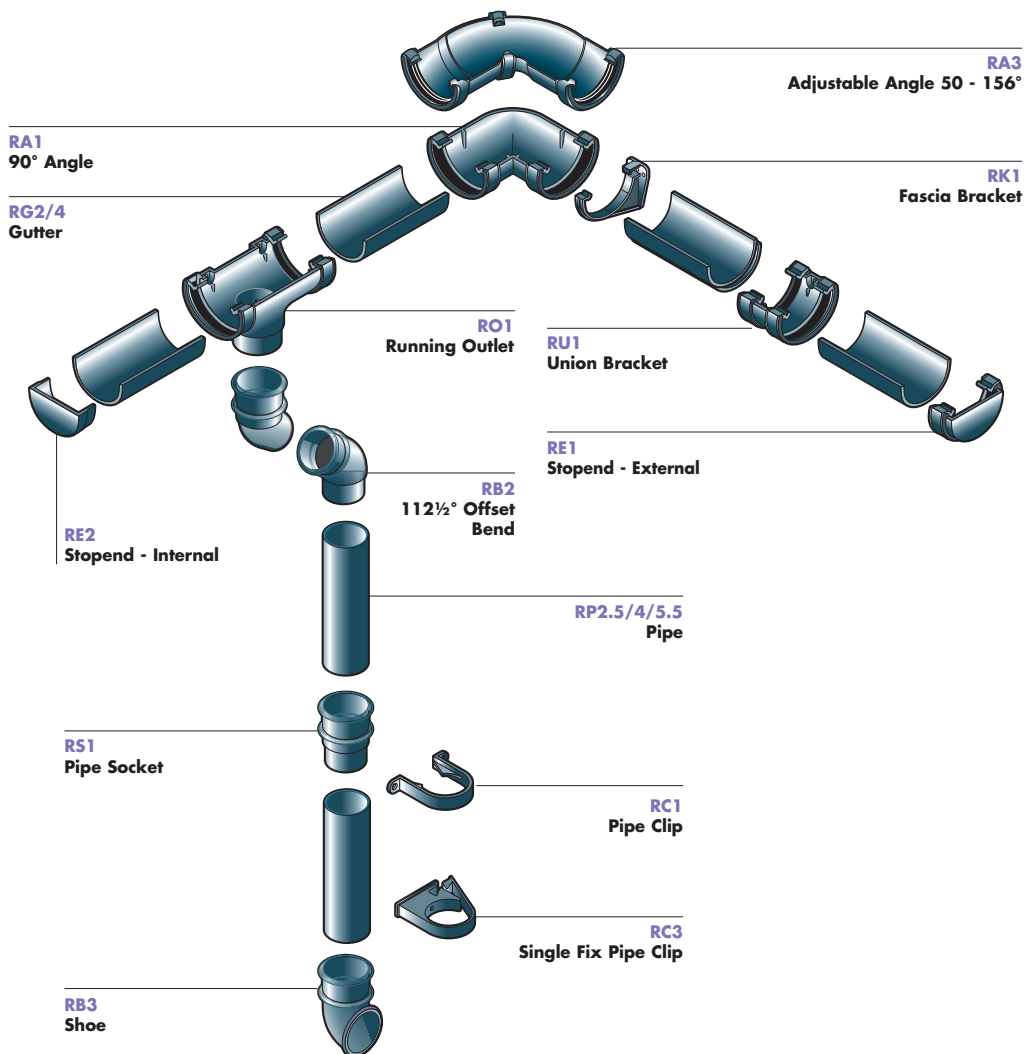
Rainwater guarantees and installations can be registered on our website, look for *register your guarantee* in the drop down box under *You* in the banner heading.



RAINWATER SYSTEMS



Half Round 112mm/68mm Rainwater System



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

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

RAINWATER SYSTEMS



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



KN 101316
BS EN 607

KN 101316
BS EN 1462

KN 101316
BS EN 12200-1

Colours




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.
- Pre-lubricated seals.
- Cost effective solution for both new build and Refurbishment applications.
- Connects to most other systems, using our extensive range of adaptors.

Product	Colours	Code
Gutter - 2m / 3m / 4m		
 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. POA: Price on application.

Running Outlet


 B W BR G AG	RO1
---	-----

Stopend Outlet


 B W BR G AG	RO2
---	-----

Product	Colours	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
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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
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For 68mm Round Downpipe see page 12.

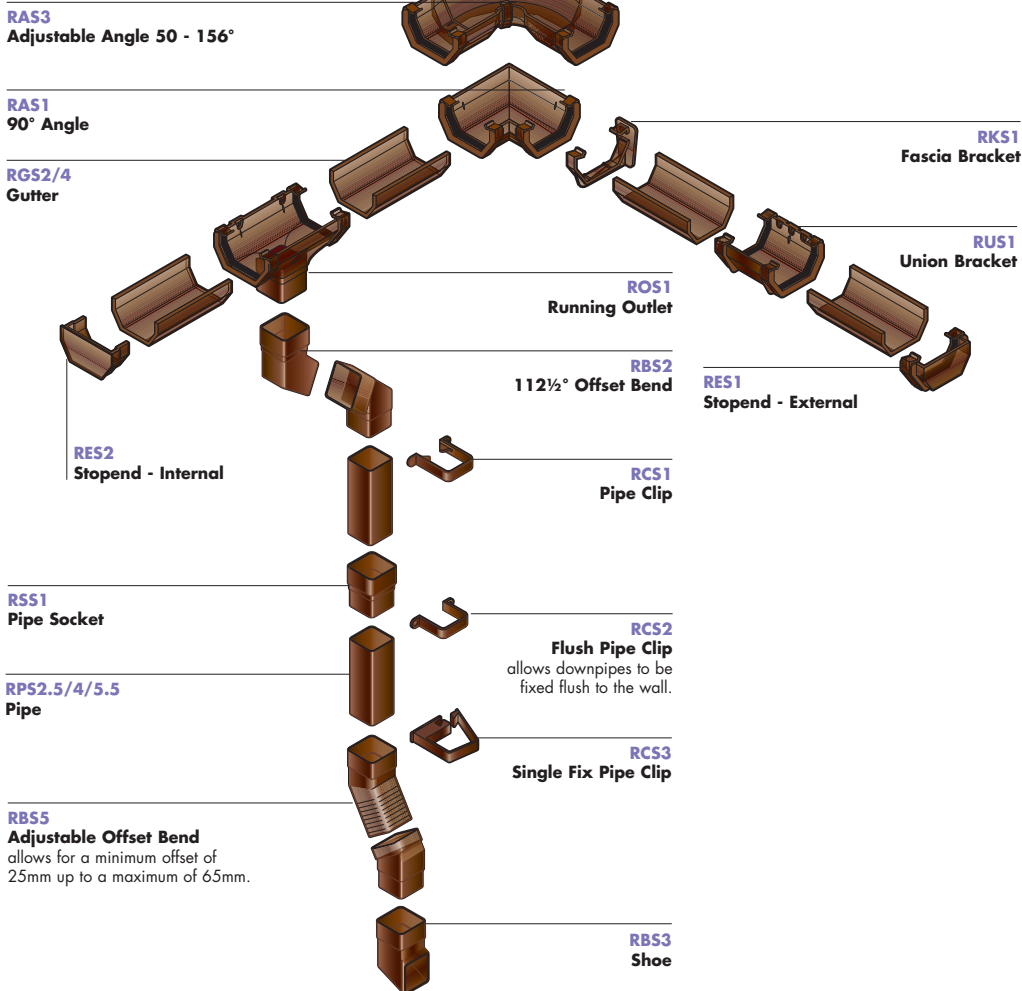
Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey

For more information visit www.floplast.co.uk

RAINWATER SYSTEMS



Square Line 114mm/65mm Rainwater System



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

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

RAINWATER SYSTEMS



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



Colours



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.
- Pre-lubricated seals.
- 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 Colours Code

Gutter - 2m / 3m / 4m

	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. POA: Price on application

Running Outlet

	B W BR AG	ROS1
--	---------------------------------------	------

Stopend Outlet

	B W BR AG	ROS2
--	---------------------------------------	------

Product Colours 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
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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.

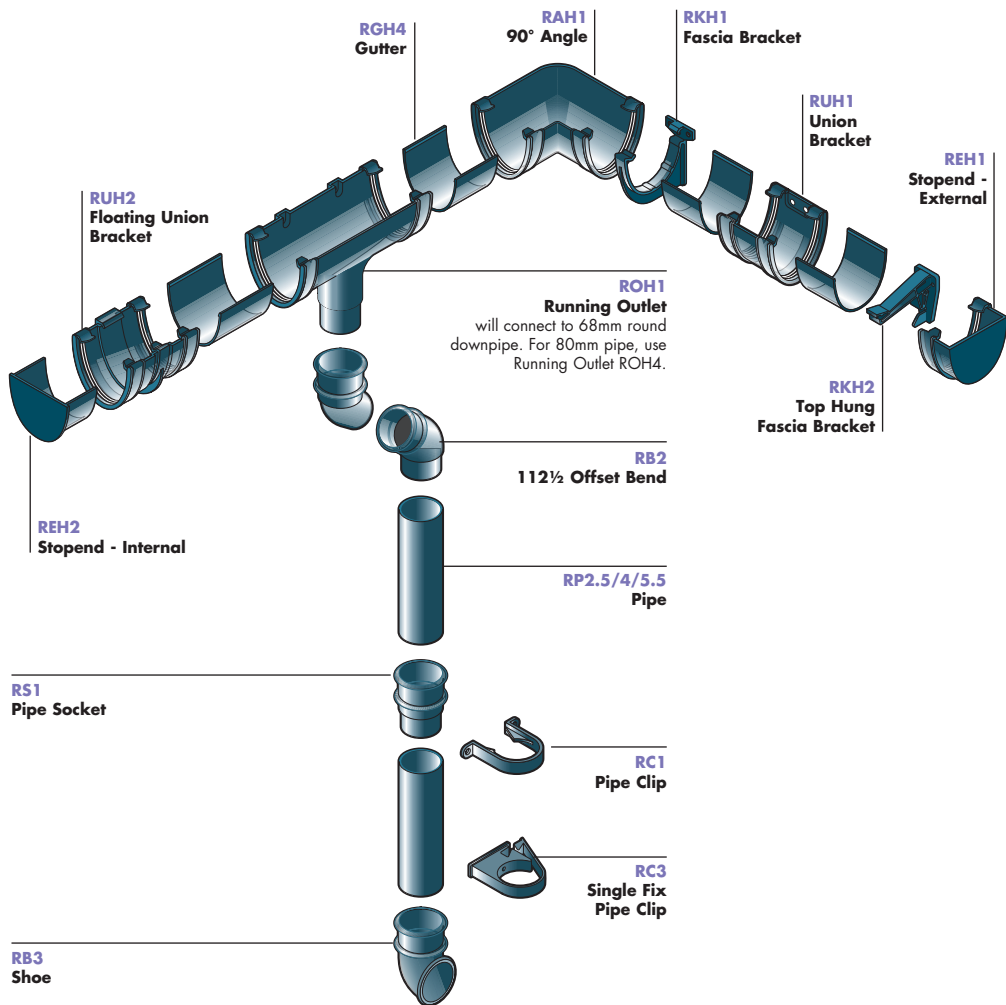
Important when ordering: Please add colour reference to code: **B** Black **W** White **G** Grey **AG** Anthracite Grey

For more information visit www.floplast.co.uk

RAINWATER SYSTEMS



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



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

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

RAINWATER SYSTEMS



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



KN 001316
BS EN 607

KN 001316
BS EN 1462

KN 001316
BS EN 12200-1

Colours



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 Colours Code

Gutter - 4m


	4m	B W BR G AG	RGH4
--	----	--	------

Angle

	90°	B W BR G AG	RAH1
	135°	B W BR G AG	RAH2
	Any Degree	B W BR G AG	RAH9

FloPlast will fabricate any non-standard angle to special order. POA: Price on application.

Running Outlet

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

Union Bracket



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

Floating Union Bracket



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

Product Colours 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

Gutter Adaptors

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

For 68mm Round Downpipe see page 12.

For 80mm Round Downpipe see page 14.

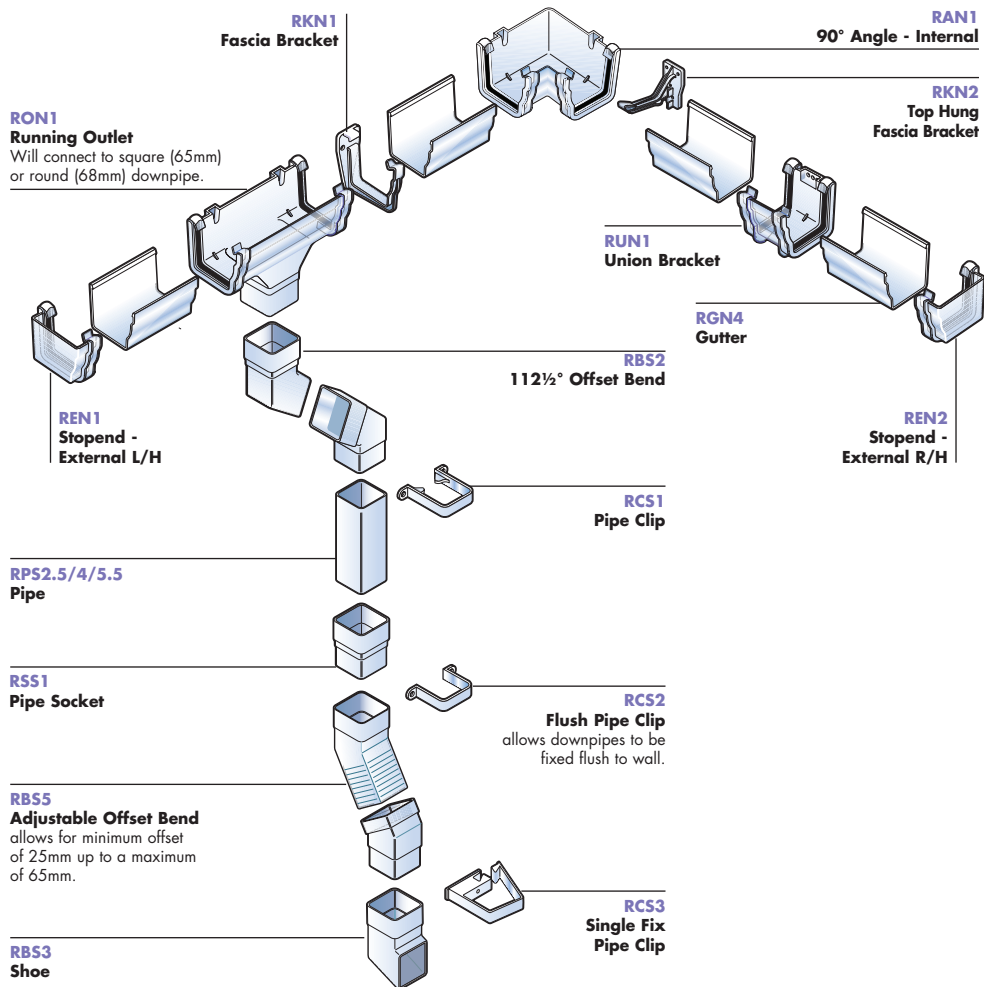
Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey

For more information visit www.floplast.co.uk

RAINWATER SYSTEMS



Niagara Ogee 119mm/65mm/68mm/80mm Rainwater System



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

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

RAINWATER SYSTEMS



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



Colours



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 Colours Code



Gutter - 4m

	4m	B W BR AG	RGN4
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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
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FloPlast will fabricate any non-standard angle to special order

Running Outlet - Multi Fit

		B W BR AG	RON1
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Connects to 65mm Square and 68mm Round Downpipe


Stopend Outlets - 65mm Square

	L/H	B W BR AG	RON2
	R/H	B W BR AG	RON3


For 68mm Round Downpipe see page 12.
For 65mm Square Downpipe see page 13.
For 80mm Round Downpipe see page 14.

Product Colours Code


Running Outlet - 80mm Round

		B W BR	RON4
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Stopend Outlets - 80mm Round

	L/H	B W BR	RON5
	R/H	B W BR	RON6



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
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Niagara Gutter Adaptors

	Half Round	L/H	B W BR	RNR3
		R/H	B W BR	RNR4
	Square Line	L/H	B W BR	RNS3
		R/H	B W BR	RNS4

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

For more information visit www.floplast.co.uk

RAINWATER SYSTEMS



68mm Round Downpipe and Fittings

Standard: BS EN 12200 -1



Colours




Dimensions





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.
- Cost effective.
- Easy to cut using a fine toothed saw.
- Suitable for new build and refurbishment applications.


Product	Colour	Code
Pipe		

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



Offset Bends

	92 1/2°	B W BR G AG	RB1
	112 1/2°	B W BR G AG	RB2



67 1/2° Branch

		B W BR G AG	RY1
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Shoes

		B W BR G AG	RB3
	With fixing lugs	B W	RB4

Pipe Sockets

		B W BR G AG	RS1
	With fixing lugs	B W	RS2

Product	Colour	Code
Pipe Clips		

		B W BR G AG	RC1
	Single Fix	B W BR G	RC3
	With fixing lugs	B W	RC4

Access Pipe

		B W BR G AG	RX1
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Hopper: Connects to 65mm square & 68mm round downpipe

	B W BR G	RHS1
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Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey **AG** Anthracite Grey

RAINWATER SYSTEMS



65mm Square Downpipe and Fittings

Standard: BS EN 12200 -1



Colours




























Dimensions



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	Colours	Code
Pipe		
	2.5m 	RPS2.5
	4m 	RPS4
	5.5m 	RPS5.5
Offset Bend		
	92° 	RBS1
	112° 	RBS2
Shoe		
		RBS3
	With fixing lugs 	RBS4
Adjustable Offset Bend		
		RBS5
Pipe Sockets		
		RSS1
	With fixing lugs 	RSS2

Product	Colours	Code
Pipe Clips		
		RCS1
	Flush 	RCS2
	Single Fix 	RCS3
	With fixing lugs 	RCS4 ³
Sq/Rd Downpipe Adaptor: Connects to 68mm round downpipe		
		RDS2
67½° Branch		
		RYS1
Square Access Pipe		
	 	RXS1
Hopper: Connects to 65mm square & 68mm round downpipe		
		RHS1

Important when ordering: Please add colour reference to code:  Black  White  Brown  Grey  Anthracite Grey

For more information visit www.floplast.co.uk

RAINWATER SYSTEMS



80mm Round Downpipe and Fittings

Standard: BS EN 12200 -1

Colours




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 Colours Code

Pipe		Colours	Code
	4m	B W BR G	RPH4

Offset Bend

	92 1/2°	B W BR G	RBH1
	112 1/2°	B W BR G	RBH2

Shoe

		B W BR G	RBH3
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Pipe Clip

	Single Fix	B W BR G	RCH3
--	------------	--------------------------------------	------

67 1/2° Branch

		B W BR G	RYH1
--	--	--------------------------------------	------

Pipe Socket

		B W BR G	RSH1
--	--	--------------------------------------	------

80mm Rainwater Adaptor: Connects 110mm Drainage

		B	D97
--	--	----------	-----

Product Colours Code






Hopper		Colours	Code
		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	Colours	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

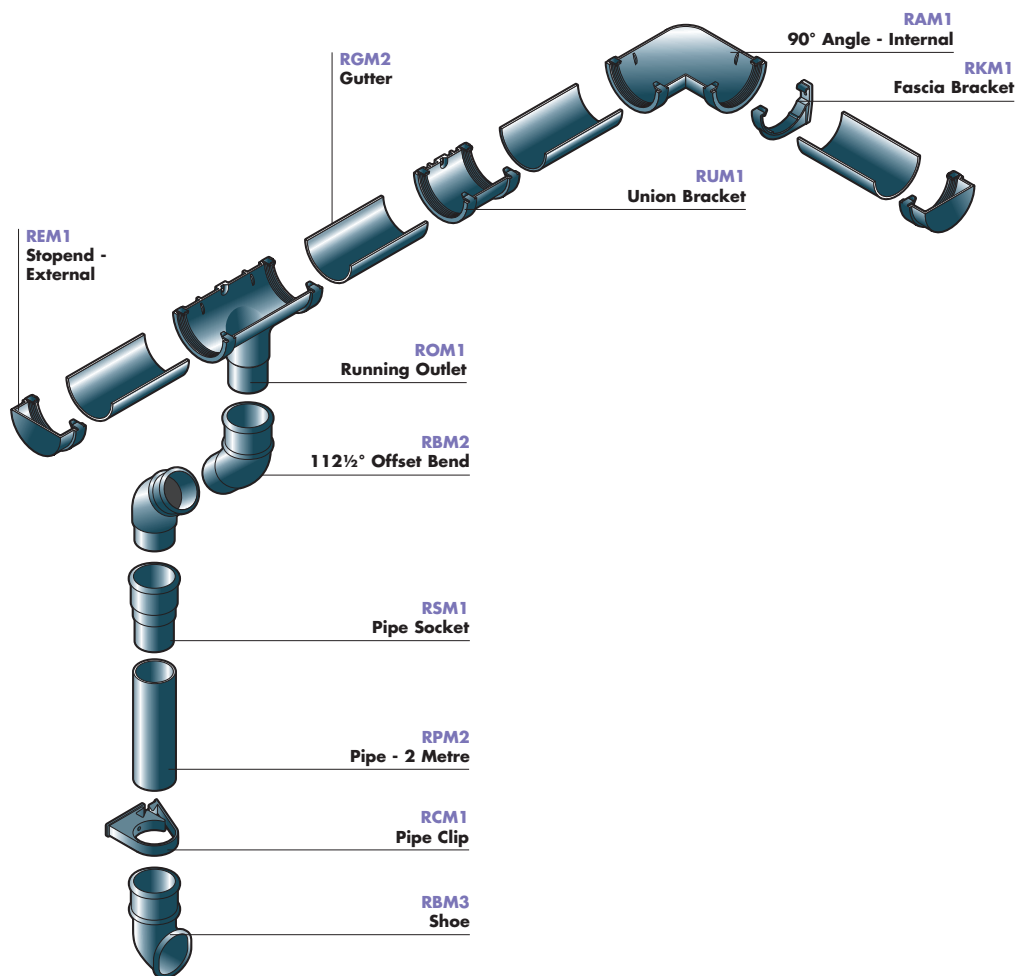
Product	Code
Niagara Ogee Gutter Seal	
	RRNS1
MiniFlo Gutter Seal	
	RRMS1
XtraFlo Gutter Seal	
	RRXS1

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

RAINWATER SYSTEMS



MiniFlo 76mm/50mm Rainwater System



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

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

RAINWATER SYSTEMS



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

Colours



Dimensions



Features & Benefits:

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

Product Colours Code

Gutter - 2m



RGM2

Angle



90°



RAM1



135°



RAM2

Running Outlet



ROM1

Product Colours Code

Stopend Outlet



ROM2

Stopend



REM1

Bracket



Fascia



RKM1



Union



RUM1

Product Code

Half Shed Pack - Black Only



MS1

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

Product Colours Code

Pipe - 2m



RPM2

Offset Bend 92½°



RBM1

Offset Bend 112½°



RBM2

Product Colours Code

Shoe



RBM3

67½° Branch



RYM1

Pipe Clip



RCM1

Product Colours Code

Pipe Socket



RSM1

MiniFlo Rainwater Diverter



RVM1

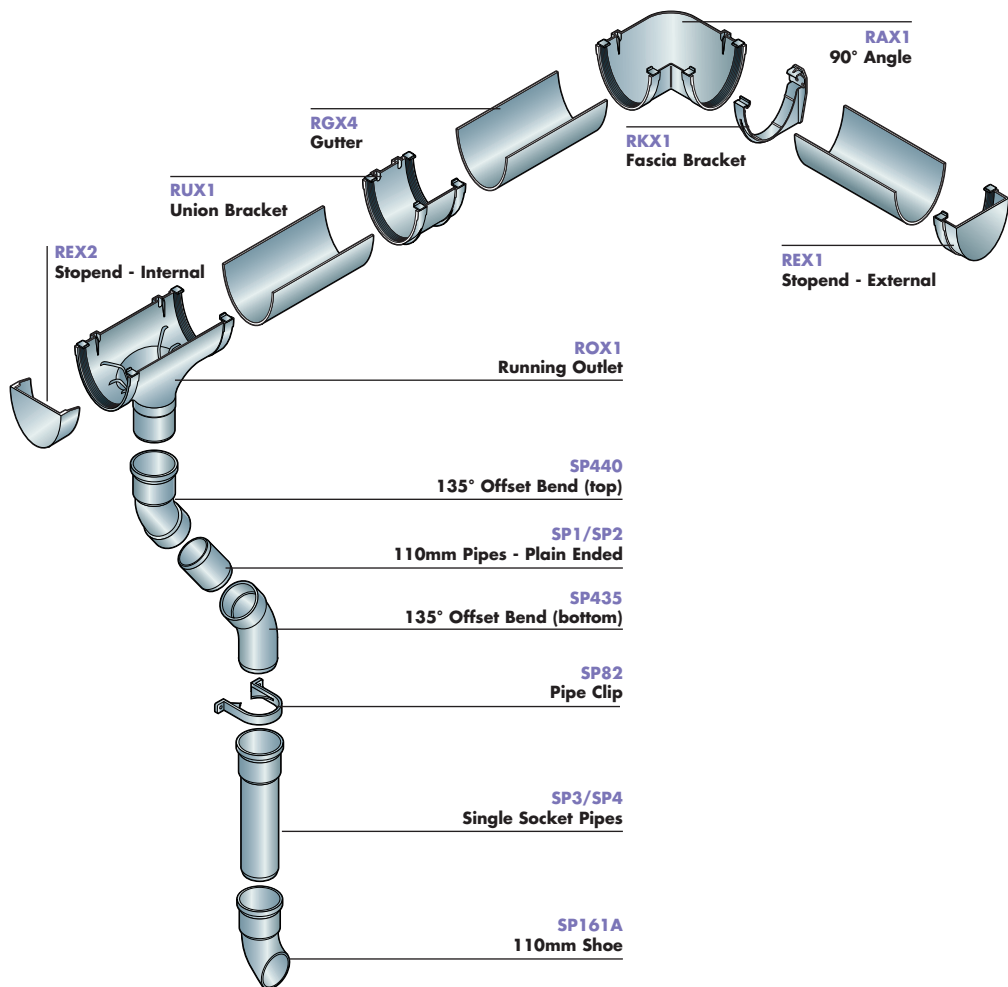
Important when ordering: Please add colour reference to code: **B** Black **W** White **BR** Brown **G** Grey

For more information visit www.floplast.co.uk

RAINWATER SYSTEMS



XtraFlo 170mm/110mm Rainwater System



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

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

RAINWATER SYSTEMS



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



KN 101316
BS EN 607

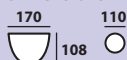
KN 101316
BS EN 1462

KN 101316
BS EN 12200-1

Colours



Dimensions



Features & Benefits:

- A semi - elliptical profile designed to enhance water flow.
- Ideal for large domestic/commercial buildings/warehouses/offices/apartment blocks and 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 Colours Code

Gutter - 4m



RGX4

Angle 90°



RAX1

Running Outlet



ROX1

Product Colours Code

Fascia Bracket



RKX1

Union Bracket



RUX1

Extrenal Stopend



REX1

Product Colours Code

Internal Stopend



REX2

110mm Round Downpipe and Fittings

Standard: BS EN 1329, BS EN 1453



KN 541331
BS EN 1329-1

KN 543460
BS EN 1329-1

KN 522704
BS EN 1453

Product Colours Code

Pipe - Plain Ended



3m
4m



SP1



SP2

Pipe - Single Socket



3m
4m



SP3



SP4

Shoe



SP161A

Product Colours Code

Pipe Clip



SP82

Offset Bend 135° (45°)



Ring Seal Top/
Solvent Bottom



SP440



Spigot/
Solvent Socket



SP435

Hopper



RHX1

Product Colours Code

92½° Soil Pipe Branch



SP190

92½° Soil Pipe Access Bend



SP169

Access Pipe



Socket/
Spigot



SP274

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

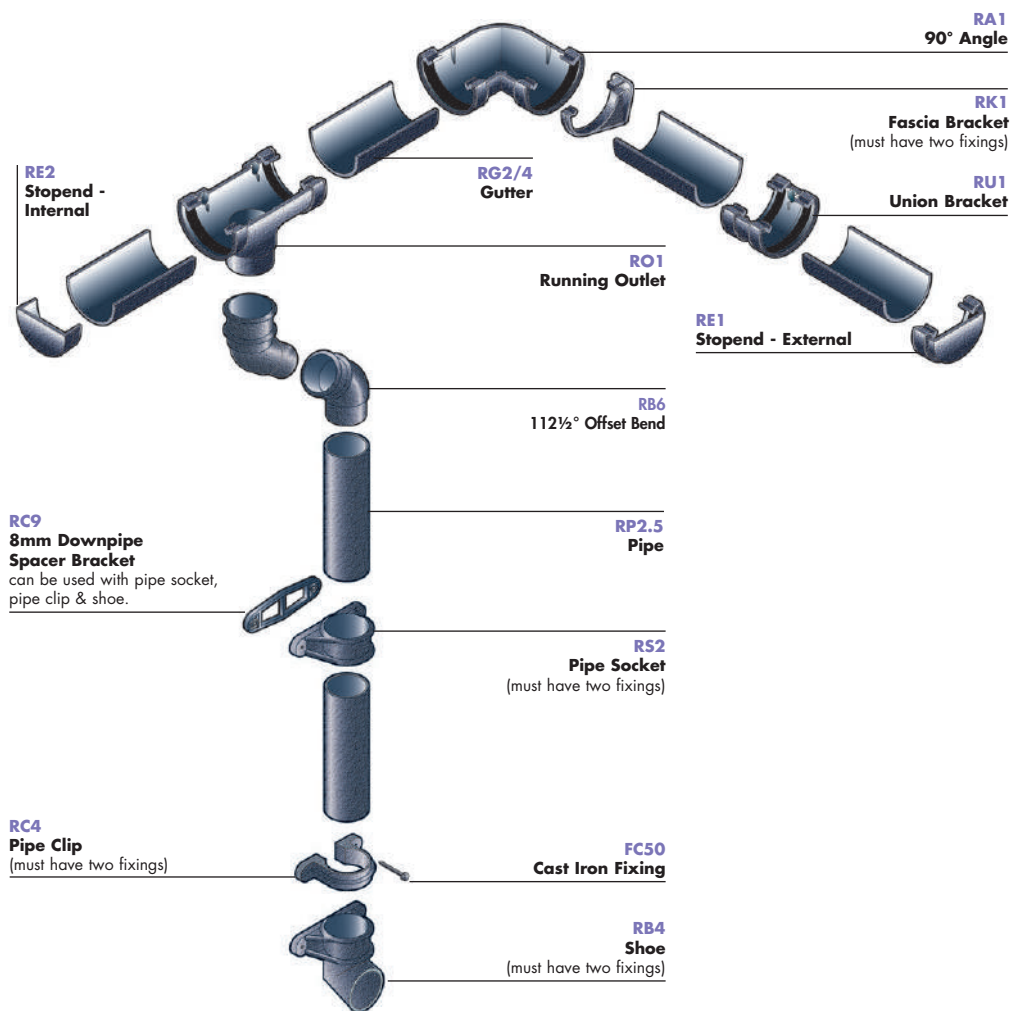
For more information visit www.floplast.co.uk

"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.

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

"CAST IRON" STYLE RAINWATER SYSTEMS



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

Colours



Dimensions



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.
- Pre-lubricated seals.
- Cost effective.
- Can be used on grade 1 listed properties.
- All the benefits of PVC for quick and easy installation.

Product Colours Code

Gutter - 2m / 4m

	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

For 68mm Round Downpipe see page 26.



Product Colours Code



Running Outlet - 68mm round

	CI	RO1
---	----	-----



Stopend Outlet - 68mm round

	CI	RO2
---	----	-----

Stopend

	External	CI	RE1
	Internal	CI	RE2

Bracket

	Fascia	CI	RK1
	Union	CI	RU1

To Ogee Cast Iron adaptors

	R/H	CI	RD3
	L/H	CI	RD4

To Half Round Cast Iron adaptors

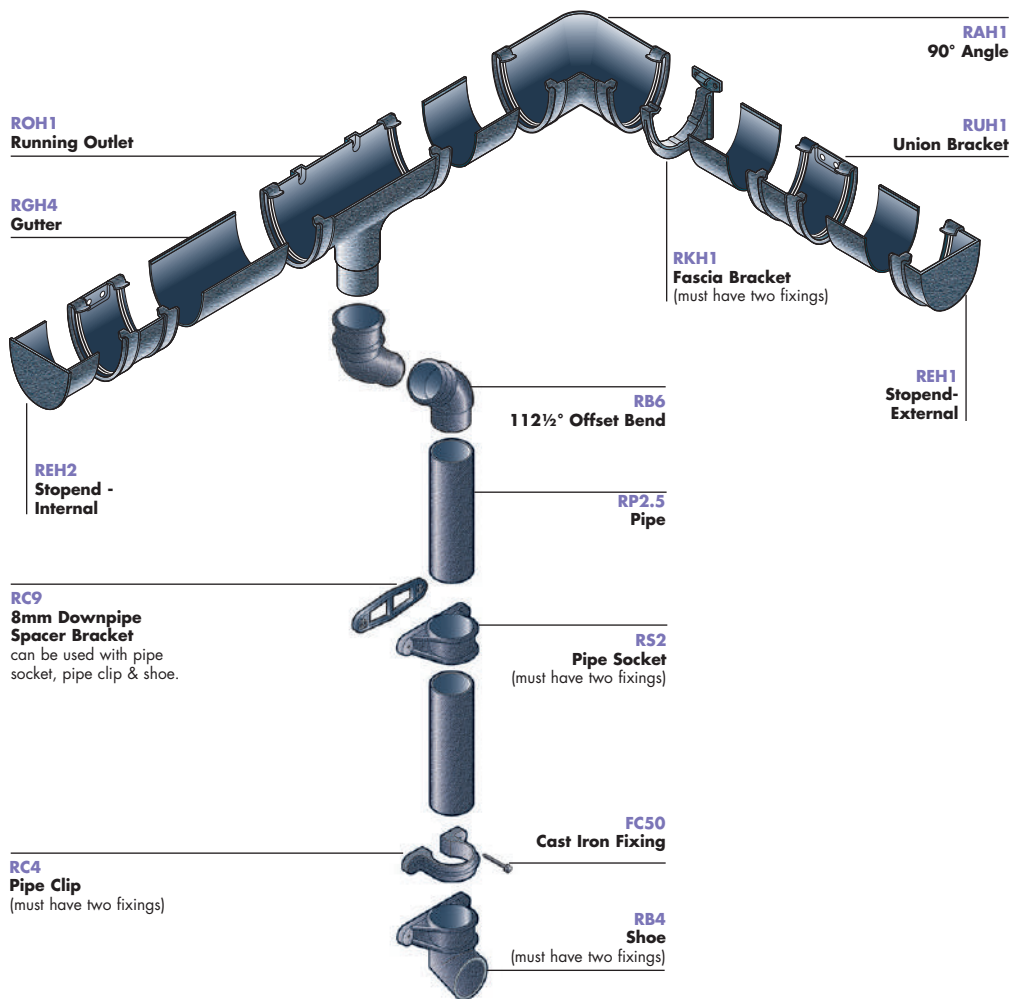
		CI	RD5
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Important when ordering: Please add colour reference to code: **CI** "Cast Iron" Style

"CAST IRON" STYLE RAINWATER SYSTEMS



Hi-Cap 115mm/68mm Rainwater



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

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

"CAST IRON" STYLE RAINWATER SYSTEMS



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

20 YEAR
CAST IRON
GUARANTEE

Colours

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.
- Pre-lubricated seals.
- Can be used on grade 1 listed properties .
- All the benefits of PVC for quick and easy installation.

Product Colours Price

Gutter - 4m

	4m	CI	RGH4
--	----	----	------

Angle

	90°	CI	RAH1
	135°	CI	RAH2
	any degree	CI	RAH9*

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

Running Outlet - 68mm round

	CI	32.04
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External Stopend

	External	CI	REH1
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Internal Stopend

	Internal	CI	REH2
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Fascia Bracket

	CI	RKH1
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For 68mm "Cast Iron" Style Round Downpipe, see page 26.

Product Colours Price

Union Bracket

	CI	RUH1
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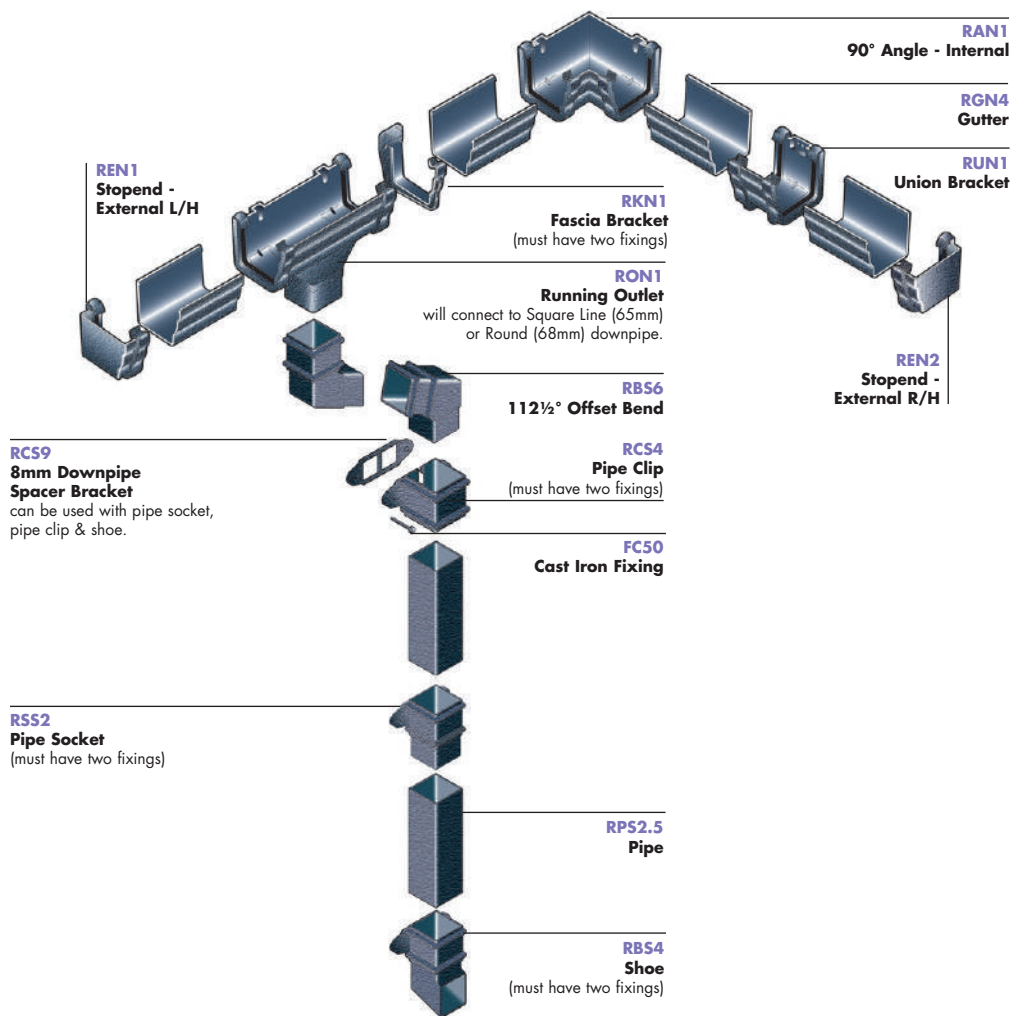


Important when ordering: Please add colour reference to code: CI "Cast Iron" Style

"CAST IRON" STYLE RAINWATER SYSTEMS



Niagara Ogee 110mm/65mm Rainwater



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

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

Colours

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 1 listed properties.

Product Colours Code

Gutter - 3m / 4m

	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. POA: Price on application.

Running Outlet - Multi Outlet

		CI	RON1
--	--	----	------

Stopend Outlet - 65mm Square

	L/H	CI	RON2
	R/H	CI	RON3

Product Colours Code

Stopend - External

	L/H	CI	REN1
	R/H	CI	REN2

Stopend - Internal

	L/H	CI	REN3
	R/H	CI	REN4

Bracket

	Fascia	CI	RKN1
	Union	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











"CAST IRON" STYLE RAINWATER SYSTEMS












68mm Round Downpipe and Fittings

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

<p>Colours</p> <p>CI</p> <p>Dimensions</p> <p>68</p> <p>○</p>	<p>Features & Benefits:</p> <ul style="list-style-type: none"> ■ Traditional round profile. ■ Can be used with Half Round, Hi-Cap and Niagara rainwater systems. ■ Durable and lightweight. ■ A practical, easy to install system. ■ Cost effective. ■ Easy to cut using a fine toothed saw. ■ Suitable for new build and refurbishment applications. ■ Can be used on grade 1 listed properties.
--	--

Product	Colours	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	RB4¹
Pipe Clip		
 With fixing lugs Requires 2 x FC50 fixings	CI	RC4¹
Pipe Socket		
 With fixing lugs Requires 2 x FC50 fixings	CI	RS2¹
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	Colours	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 		
	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




















"CAST IRON" STYLE RAINWATER SYSTEMS



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

Colours 	Features & Benefits:	
	Dimensions 65 	<ul style="list-style-type: none"> ■ Attractive square profile. ■ Can be used with Squareline and Niagara rainwater systems. ■ Durable and lightweight. ■ A practical, easy to install system. ■ Cost effective. ■ Easy to cut using a fine toothed saw. ■ Suitable for new build and refurbishment applications. ■ Can be used on grade 1 listed properties.

Product	Colours	Code
Pipe - 2.5m		
		RPS2.5
Offset Bend		
	92½° 	RBS8
	112½° 	RBS6
Shoe		
	With fixing lugs Requires 2 x FC50 fixings 	RBS4
Pipe Clip		
	With fixing lugs Requires 2 x FC50 fixings 	RCS4
Pipe Socket		
	With fixing lugs Requires 2 x FC50 fixings 	RSS2
67½° Branch		
		RYS2
Universal Hopper: Connects to 65mm square and 68mm round downpipe		
		RH1



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



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

RAINWATER HARVESTING





EcoFlo Rainwater Diverters Standard: BS EN 12200 -1



Product	Colour	Code
Rainwater Diverter		
	B W BR G AG CI	RVS1
Connects to 65mm square and 68mm round downpipe		
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

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

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

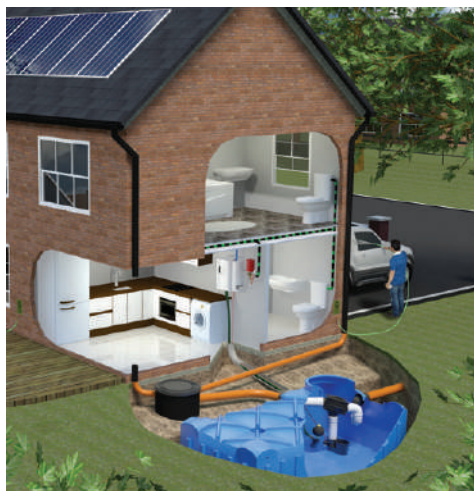
200L WATER BUTT	
<ul style="list-style-type: none"> ● 210L capacity ● Traditional shape water butt with a large capacity. ● Supplied with tap and lockable lid. ● Manufactured in the UK from recycled materials. 	
Dimensions	
Water Butt:	Stand:
57cm (25½") Diameter	53cm (21") Diameter
97cm (39½") Height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

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

RAINWATER HARVESTING



StormSaver Rainwater Harvesting system Standard: BS 8515



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

Benefits of using StormSaver:

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





Product	Size	Code
StormSaver Packages		
	1500	S1500
	3000	S3000
	5000	S5000
	7500	S7500
Package includes: <ul style="list-style-type: none"> • Underground storage tank • 235mm Entrance shaft • Pedestrian duty lid for tank • Control panel • ½" Boosted floating suction filter kit • 20m ½" Flexible suction hose 		
Size is in litres		
Pedestrian Duty Lid		
		PDL1



Product	Size	Code
Entrance Shaft		
	235mm	ES235
	635mm	ES635
Control Panel €		
		CP1
½" Boosted Floating Suction Filter Kit		
		FK1
½" Flexible Suction Hose		
	20mm	H20
	40mm	H40

Product	Size	Code
Level Sensor		
		LS1
Identification Tape and Label Pack		
		ID1
110mm Non-Return Valve - Single Flap		
		D550
Required for the system to comply with BS 8515		








Leaf/Weather Protection

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

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

Ancilleries

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, and BS EN 1329-1 (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 PVCu 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 soapy warm 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:

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

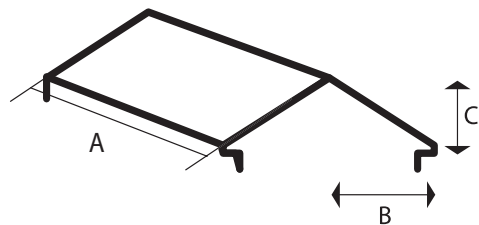
B = Half width of gable end or hip

C = Vertical measurement from eaves to apex

An alternative to the above method is the use of multiplication factors to establish effective roof cover.

Approved Document H of the Building Regulations shows the same method, although the options given below allow for greater accuracy of the effective roof area in m².

Calculate the above using the following method: A x B x factors dependant on the angle of the roof pitch.



METHOD OF CALCULATING EFFECTIVE ROOF AREA

Roof Pitch	10°	12.5°	15°	17.5°	20°	22.5°	25°	27.5°	30°	32.5°	35°	37.5°	40°	42.5°	45°	47.5°
Factor	1.088	1.111	1.134	1.158	1.182	1.207	1.233	1.260	1.288	1.319	1.350	1.384	1.419	1.459	1.500	1.547

For roofs of 50° or more and walls, the factor of 1.600 should be used.



Rainwater System Installation

1. Plan your installation using the component diagrams to assist you in selecting the correct type and quantity of products required.
 - Fascia brackets should be spaced at a maximum of one metre apart on straight gutter runs. (800mm in the case of the Niagara system, 600mm in the case of the Xtraflo system). When using 80mm Round Downpipe with Hi-Cap and Niagara Systems, fascia brackets should be spaced at a maximum of 800mm intervals. In areas where there is the possibility of high levels of snowfall, fascia brackets should be spaced at a maximum of 400mm centres. 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 usewith 40mm x 5mm (1½" x 10) screw.
 - Outlets and Angles 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 5) which facilitates the retention of snow, allowing slow melt, rather than slippage. In areas where there is the possibility of high levels of snowfall, fascia brackets should be spaced at a maximum of 400mm centres.

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



Gutter Flow rates

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

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

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

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



Hopper Flow and System Design

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

Design Factors

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

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

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

Expansion

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

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

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

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

Carrying Capacities for Gutter

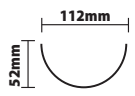
The carrying capacity of gutters varies under differing conditions. The main variables are whether or not the gutter is fitted to a fall or level and whether the outlet is placed in the centre or at one end of the gutter run.

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.

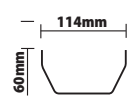
The carrying capacities in litres per second for gutters, taking into account the major variables, are specified in the performance table on page 33.

Design Data All gutter dimensions are nominal.

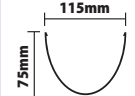
Half Round and "Cast Iron" Style Half Round



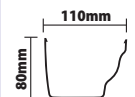
Square Line



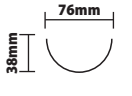
Hi-Cap and "Cast Iron" Style Hi-Cap



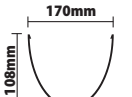
Niagara Ogee and "Cast Iron" Style Niagara Ogee



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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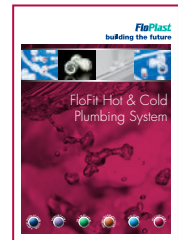
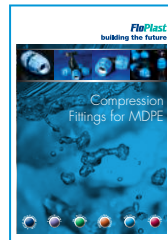
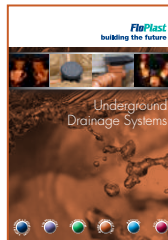
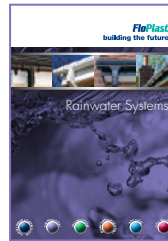
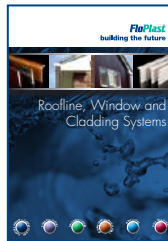
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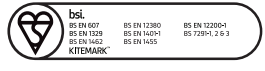
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