



# Rainwater Systems













# **FloPlast**

## HIGH QUALITY PVC-U RAINWATER SYSTEMS



**FIOPlast**, 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.

**FIOPLASE** 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 **FioPlast** 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 9001:2015 Certificate No. FM 501414, BS EN ISO 14001:2015 Certificate No. EMS 538445, BS EN ISO 18001:2007 Certificate No. OHS 593622 501414 and 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.

#### **System Features**

 Gutters, pipes and fittings manufactured in PVC-U, a material which is not easily ignitable and will not support combustion. All products comply with the material requirements of: BS EN 12200 1:2000, BS EN 1329-1:2014 and BS 1453-1:2000 (downpipes and fittings)

BS EN 607:2004 (gutters and fittings)

BS EN 1462:2004 (eaves brackets)







**FloPlast** Rainwater Systems have been rigorously tested by The British Standards Institute and have been awarded their prestigious Kitemark. License No. KM 501316.

- Suitable for all types of buildings including domestic, commercial and industrial.
- Practical rainwater handling systems which, unlike metal systems, do not conduct lightning.
- Components have a consistent self-finish and colour and are essentially maintenance free.
- 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.
- All large fittings are packaged individually to protect their surface from scratch marks.
- 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.

## **INSTALLATION FEATURES**



#### 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 **FIoPlast** 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.

#### Colour Guide

B Black

Caramel

Cast Iron" Style

**W** White

BR Brown

**G** Grey

AG Anthracite Grey



## PRODUCT GUARANTEES

## 10 - Year Performance & Colour Guarantee\*

Applies to our PVC Rainwater range.





Register your installation today at www.floplast.co.uk

\*Excludes caramel rainwater colour.

## 20 - "Cast Iron" Style Guarantee



FloPlast are pleased to announce that due to further research and development within our manufacturing process, we can now offer a 20 Year "Cast Iron" Colour Guarantee across all of our "Cast Iron" Style Rainwater products.

## INSTALLATION VIDEOS

#### FloPlast Installation Videos

Our step-by-step installation videos (available online), make it clearer and easier to get to grips with the all the technical elements involved in what may be a complex process.

What's more there is also a downloadable pdf guide to help with your installation.







## LEAF/WEATHER PROTECTION







100		A Partie	
Product		Colour	Code
Balloon:	Leaf Protection Syste	em	
4	(Outlet Guard)	В	OG1
DrainGuard			
	Fits round and square downpipe	В	DG1



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

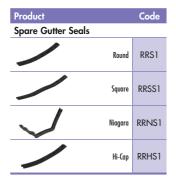
## **ANCILLARIES**

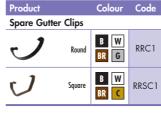


Product	Colour	Code	
Universal Rainwater	Adaptor		
Connects to 110mm drainage	В	D96	
40ml Compressed Silicone Lubricant Spray			
	N/A	SL40	
8mm Universal Fasc	ia Bracke	t Spacer	
V	B W	RS9	
Suitable for Half Round, Square Line, Hi-Cap and Niagara Ogee gutters.			



## **SPARES**

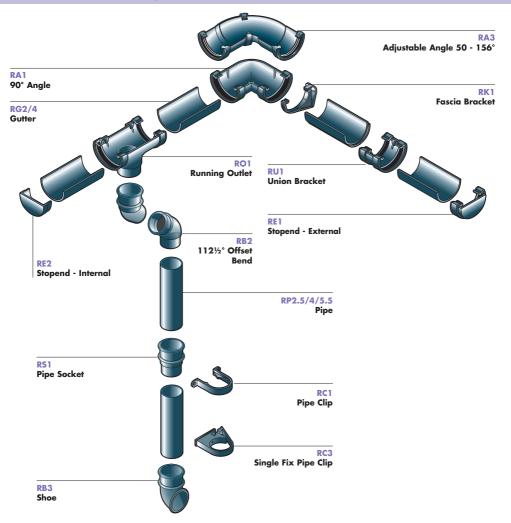




Product		Colour	Code
Spare Gutt	er Clips		
U	Niagara	B W	RRNC1
U	Hi-Cap	B W	RRHC1



## Half Round 112MM/68MM RAINWATER SYSTEM



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



#### 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 metal or plastic systems, using our extensive range of adaptors.









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









Product	Colour	Code
Running Outlet		
	B W	RO1
Stopend Outlet		
6	B W	RO2
Stopend		
External	B W	RE1
Internal	B W	RE2
Fascia Bracket		

B W

BR G

RK1







BR G

## 68MM ROUND DOWNPIPE & FITTINGS BS EN 12200-1:2000

Product		Colour	Code
Pipe		COIODI	Code
	2.5m 4m 5.5m	B W BR	RP2.5 RP4 RP5.5
Offset Bend	ds:		
J	<b>92</b> ½°	B W BR	RB1
3	11 <b>2</b> ½°	B W BR G AG	RB2
Shoes			
		B W BR G AG	RB3
a fi	With xing lugs	B W	RB4*

Product	Colour	Code
Pipe Clips:		
~	B W BR	RC1
Single Fix	B W	RC3
With fixing lugs	B W	RC4**
671/2° Branch		
ď	B W BR	RY1
Access Pipe		
PART	B W	RX1

Product	Colour	Code
Pipe Sockets		
	B W BR G AG	RS1
With fixing lugs	BW	RS2***
Hopper		
	B W BR G AG	RHS1
Connects to 65mm square & 6	8mm round downpipe.	

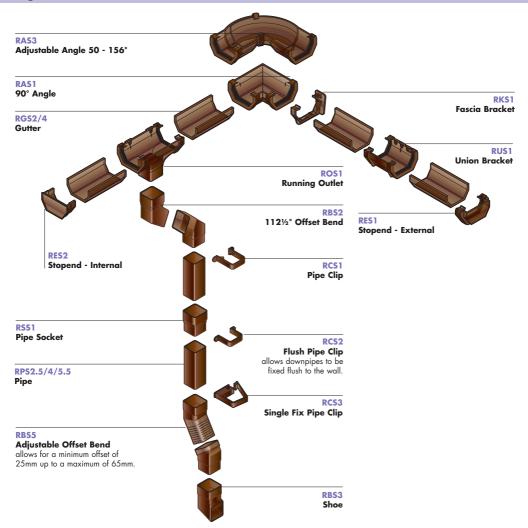
\*Must be used in conjunction with RC4 and RS2.

\*\*Must be used in conjunction with RB4 and RS2.

\*\*\*\*Must be used in conjunction with RC4 and RB4.



## **Square Line 114MM/65MM RAINWATER SYSTEM**



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





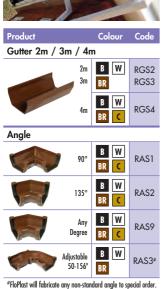






## 114MM GUTTER AND FITTINGS BS EN 607:2004, BS EN 1462:2004, BS EN 12200-1:2000













## 65MM SQUARE DOWNPIPE & FITTINGS BS EN 12200-1:2000

Product		Colour	Code
Pipe			
	2.5m 4m	B W BR	RPS2.5 RPS4
	5.5m	B W BR	RPS5.5
671/2° Bro	anch		
4		B W BR	RYS1
Offset Bend			
3	92½°	B W BR	RBS1
	11 <b>2</b> ½°	B W BR	RBS2
1	Adustable	B W BR	RBS5

Colour	Code
B W BR	RBS3
B W	RBS4 <sup>1</sup>
B W BR	RCS1
B W BR	RCS2
B W BR	RCS3
B W	RCS4 <sup>2</sup>
	B W BR C AG B W BR C AG B W BR C AG B W BR

Tixing lugs			
Pipe Clips			
4	B W BR	RCS1	
Con Flush	B W BR	RCS2	
Single Fix	B W BR	RCS3	
With fixing lugs	B W	RCS4 <sup>2</sup>	
<sup>1</sup> Must be used in conjunction with RCS4 and RSS2. <sup>2</sup> Must be used in conjunction with RBS4 and RSS2.			

Product	Colour	Code
Pipe Sockets		
	B W BR AG	RSS1
With fixing lugs	B W	RSS2 <sup>3</sup>
Square Access P	ipe	
PAP	B W BR	RXS1
68mm Round Downpipe Adaptor		
	B W BR	RDS2
Hopper Connects to 6	5mm Sq and 68mm R	nd Downpipe

B W BR

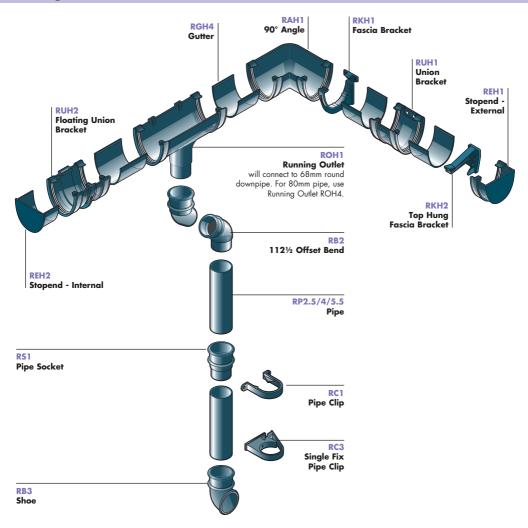
CAG

RHS1

<sup>3</sup>Must be used in conjunction with RCS4 and RBS4.



## **Hi-Cap** 115MM/68MM/80MM RAINWATER SYSTEM



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

# B W BR G AG Dimensions 115 68 80 | 60 0 0

Colours

#### **Features & Benefits:**

- A semi elliptical profile.
- High capacity ideal for large roof areas.
- 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.









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



N.			М.		
Product		Colour	Code		
Gutter - 4m					
	4m	B W BR	RGH4		
Running Ou	ıtlet				
-	68mm	B W BR G AG	ROH1		
4	80mm	B W G	ROH4		
Union Bracket					
1		B W BR	RUH1		

Floating B W



		1	
Product		Colour	Code
Angle			
1	90°	B W BR	RAH1
	135°	B W BR	RAH2
	any degree	B W BR	RAH9#
#FloPlast will fabric	ate any non	-standard angle to spe	cial order.
Stopend			
	External	B W BR	REH1
1	Internal	B W BR	REH2



Fascia Bracket				
U	B W BR	RKH1		
Top Hung	B W	RKH2		
Hi-Cap to Half Ro	und Gutter A	daptors		
<b>W</b> -	B W BR	RHR3		
Hi-Cap to Square Line Gutter Adaptors				
1	B W BR	RHS3		

## 80MM ROUND DOWNPIPE & FITTINGS BS EN 12200-1:2000

RUH2



Pipe Clip			
0	(Single fix)	B W	RCH3

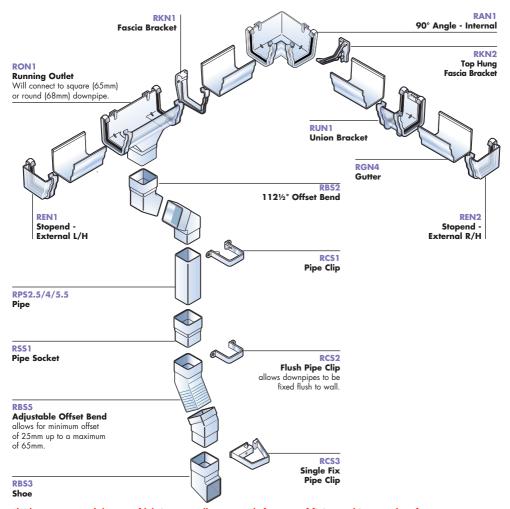
Product	Colour	Code
Pipe Socket		
	B W	RSH1
Hopper		
	B W BR G	RHH1
67½° Branch		
	B W	RYH1

For Anthracite Grey 68mm round downpipe, see page 7.





## 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.

# Colours B W BR **Dimensions**

#### Features & Benefits:

- A traditional ogee style profile.
- One of the highest capacity PVC-U domestic rainwater systems.
- Water-tight seal and retaining clip pre-fitted for fast user friendly installation.
- Suitable for all properties, old and new.
- Running Outlet (RON1) can be connected to either 65mm Square or 68mm Round downpipes.
- Running outlet designed to cope with above average rainfall.
- For an improved aesthetic gutter line when viewed from below, use RKN2 top hung bracket.

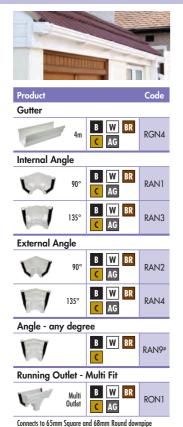




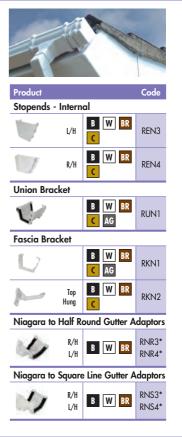




## 110MM GUTTER AND FITTINGS BS EN 607:2004, BS EN 12200-1:2000, BS EN 1462:2004







## 80MM ROUND DOWNPIPE & FITTINGS BS EN 12200-1:2000





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

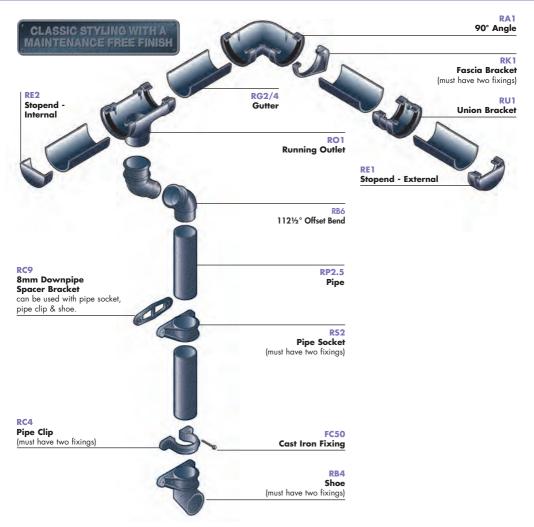


For Anthracite Grey 65mm square downpipe, see page 9.

RYH1



## Half Round "CAST IRON" STYLE 112MM/68MM RAINWATER SYSTEM



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



#### **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.
- Significant cost saving over traditional Cast Iron.
- All the benefits of PVC for quick and easy installation.



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



THE RESERVE OF THE PARTY OF THE		25	2.5
Product		Colour	Code
Gutter			
	2m 4m	CI	RG2 RG4
Angle			
	90°	CI	RA1
	135°	CI	RA2
Angle - any deg	gree		
		CI	RA9#
#FloPlast will fabricate any	non-stand	lard angle to	special order



Product		Colour	Code
Running Out	let - 68m	m round	ł
-		CI	RO1
Stopend Out	let - 68m	m round	ł
		CI	RO2
Stopend			
6	External	CI	RE1
-	Internal	CI	RE2



6		H.	
Product		Colour	Code
Bracket			
V.	Fascia	CI	RK1
4	Union	CI	RU1
To Cast Iron	gutter ad	aptors	
1	ogee R/H	CI	RD3
0	ogee L/H	CI	RD4
	Half Round	CI	RD5

## 68MM ROUND DOWNPIPE & FITTINGS BS EN 12200-1:2000

Product		Colour	Code
Pipe			
	2.5m	CI	RP2.5
Offset Bend			
3	<b>92</b> ½°	CI	RB8
7	11 <b>2</b> ½°	CI	RB6
Shoe			
7		CI	RB4#
Pipe Clip			
مع		CI	RC4#
Pipe Socket			
		CI	RS2#
67½° Branch			
•		CI	RY1

Access Pip	е			
PART		CI	RX1	
Square/Ro	ound Downpip	e Ado	ptor	
T		CI	RDS2	
Universal	Hopper			
-	Connects to 65mm square & 68mm round downpipe	CI	RH1	
Ogee Hop	per			
F	Connects to 68mm round and 65mm square downpipes	CI	RH4#	
Rectangul	ar Hopper**			
-	Connects to 68mm round and 65mm square downpipes	CI	RH5#	
Cast Iron Fixings*				
_		CI	FC50	
12 gauge x 50mn	n stainless steel fixings fo	or "Cast Iro	n" Range	

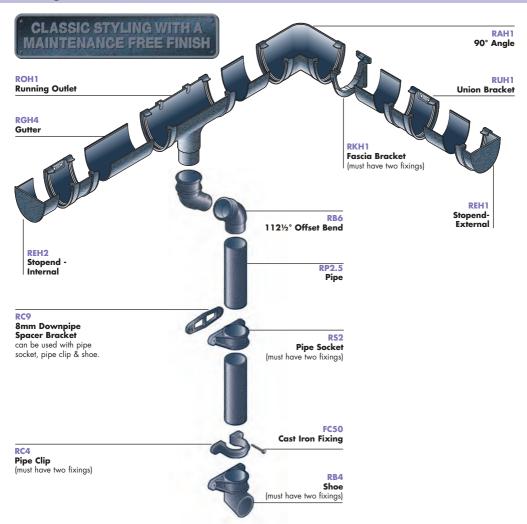
Product

El	N 12200-1	:2000				
Ì	Colour	Code	Product		Colour	Code
			Fleur-de-Lis			
	ci	RX1	<b>A</b>	40mm	CI	FL55
	CI.	K/ I	مالات	52mm	CI	FL70
ij	pe Ada	ptor	Tudor Rose			
	21	DDCO	.48b.	40mm	21	TR55
	CI	RDS2	-	52mm	CI	TR70
			Decorative Sc	quare		
ı	-		100	40mm	CI	DS55
	CI	RH1		52mm	CI	DS70
			Lion's Head			
				40mm	CI	LH55
	CI	RH4#		52mm	G	LH70
_			Motifs can be applied to proprietary adhesive such			g a
_			**This product is rotation		•	wina alona
	ci	RH.5#	its length up to +/-4%.	,		5 210119
	41	IXI IJ	*With fixing lugs (Require	es 2 x FC50 fixings	)	

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



## **Hi-Cap** "CAST IRON" STYLE 115MM/68MM RAINWATER SYSTEM



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



## Features & Benefits:

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



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



		T
Product	Colour	Code
Gutter		
4m	CI	RGH4
Union Bracket		
	CI	RUH1
Running Outlet - 68mm	n round	
-	CI	ROH1



Product Angle		Colour	Code
60	90°	CI	RAH1
1	135°	CI	RAH2
-	any degree	CI	RAH9#
#FloPlast will fabricate an	y non-standa	rd angle to sp	oecial order



-			
Product		Colour	Code
Stopend			
6	External	CI	REH1
-	External	CI	REH2
Fascia Bracke	et		
.)		CI	RKH1

## 68MM ROUND DOWNPIPE & FITTINGS BS EN 12200-1:2000

Product Pipe		Colour	Code
	2.5m	CI	RP2.5
Offset Bend			
1	<b>92</b> ½°	CI	RB8
3	11 <b>2</b> ½°	CI	RB6
Shoe			
7		CI	RB4#
Pipe Clip			
ھے		CI	RC4#
Pipe Socket			
		CI	RS2#
671/2° Branch			
•		CI	RY1

PART		CI	RX1
Square/Re	ound Downpij	oe Ado	ptor
T		CI	RDS2
Universal	Hopper		
1	Connects to 65mm square & 68mm round downpipe	CI	RH1
Ogee Hop	per		
F	Connects to 68mm round and 65mm square downpipes	CI	RH4#
Rectangul	ar Hopper**		
-	Connects to 68mm round and 65mm square downpipes	CI	RH5#
Cast Iron	Fixings*		
_		CI	FC50
12 gauge x 50mm	n stainless steel fixings f	or "Cast Iro	n" Range

Product		Colour	Code
Fleur-de-Lis			
<b>A</b>	40mm	CI	FL55
JL.	52mm	CI	FL70
Tudor Rose			
.ellik.	40mm	CI.	TR55
4	52mm	CI	TR70
Decorative S	quare		
領の統	40mm	CI.	DS55
	52mm	CI	DS70

Lion's Head			
	40mm 52mm	CI	LH55 LH70

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

 $^{\ast\ast}$  This product is rotationally moulded and subject to bowing along its length up to +/-4%.

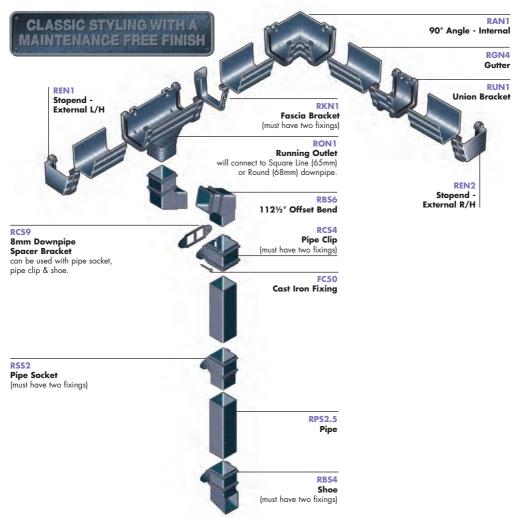
\*With fixing lugs (Requires 2 x FC50 fixings)

\*Fixing instructions for the FC50 (Cast Iron fixing bolts)
The FC50 is a 12 gauge x 50mm Stainless Steel bolt, that requires

the FSU is a 12 gauge x Summ Staniess sheet both, that requires a 12mm, 12 gauge is star beed socket to tighten it. When using these fixings on Ogee and Rectangular Hoppers we recommend that a  $3/4^{\circ}$  top washer is used. When fixing product to concrete, brick, block etc fix FSO in the same way as any other scree by toxing a plug type fixing, and into timber by pilot drilling a starter hole first.



## Niagara "CAST IRON" STYLE 110MM/65MM/68MM RAINWATER SYSTEM



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



#### **Features & Benefits:**

- Traditional style ogee Hopper available.
- One of the highest capacity PVC-U domestic rainwater systems on the market.
- Water-tight seal and retaining clip pre-fitted for fast user friendly installation.
- Extremely cost effective solution for old style building refurbishment and new build installations.
- Running Outlet can be connected to 65mm or 68mm Round downpipes.
- Black fixing bolts available.



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



Product Gutter		Colour	Code
	3m 4m	CI	RGN3 RGN4
Union Bracket			
		CI	RUN1
Running Outlet -	Multi C	Outlet	
		CI	RON1
Stopend Outlet - 6	5mm		
	L/H	CI	RON2
	R/H	CI	RON3



Product Angle		Colour	Code
Aligie			
1	90° Internal	CI	RAN1
4	90° External	CI	RAN2
	135° Internal	CI	RAN3
	135° External	CI	RAN4
	Any Degree	CI	RAN9#
Fascia Brac	ket		
U		CI	RKN1



Product		Colour	Code
Stopend - External			
6	L/H	CI	REN1
	R/H	CI	REN2
Stopend - Internal			
	L/H	CI	REN3
	R/H	CI	REN4

Please note: Round downpipe can also be used, please see page 17

## 65MM SQUARE DOWNPIPE & FITTINGS BS EN 12200-1:2000

е
.5
8
6
4
4
2

Product 67½° Brai	7	Colour	Code
		CI	RYS2
Square/Ro	ound Downpip	e Ado	ptor
T		CI	RDS2
Universal	Hopper		
1	Connects to 65mm square & 68mm round downpipe	CI	RH1
Ogee Hop	per#		
F	Connects to 68mm round and 65mm square downpipes	CI	RH4
Rectangular Hopper#			
-	Connects to 68mm round and 65mm square downpipes	CI	RH5

Product		Colour	Code
Fleur-de-Lis			
<b>A</b>	40mm	CI	FL55
שני	52mm	CI	FL70
Tudor Rose			
484	40mm	CI	TR55
<b>SEP</b>	52mm	G	TR70
Decorative Squ	are		
100	40mm	CI	DS55
	52mm	C)	DS70
Lion's Head			
AREA .	40		IIIEE

52mm LH7O

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

\*With fixing lugs (Requires 2 x FC50 fixings)

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

www.floplast.co.uk Rainwater Systems 19

This product is rotationally moulded and subject to bowing along

CI

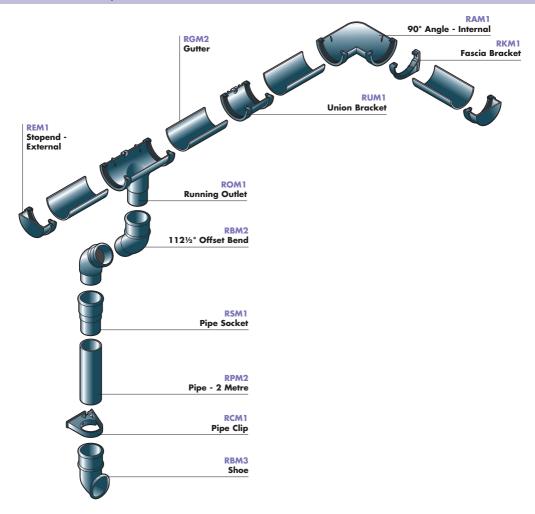
FC50

its length up to +/-4%.

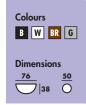
Cast Iron Fixings\*



## MiniFlo 76MM/50MM RAINWATER SYSTEM



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



#### **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.
- Practical, and easy to install.
  - An ideal solution for garages, sheds, summer houses and most garden buildings.



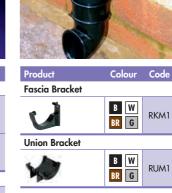
## 76MM GUTTER AND FITTINGS BS EN 607:2004, BS EN 12200-1:2000, BS EN 1462:2004







REM1



## 50MM ROUND DOWNPIPE & FITTINGS BS EN 12200-1:2000

ROM2

Stopend



B W

BR G

RBM3

Product	Colour	Code
Pipe Clip		
<b>O</b>	B W BR G	RCM1
Pipe Socket		
T	B W BR G	RSM1

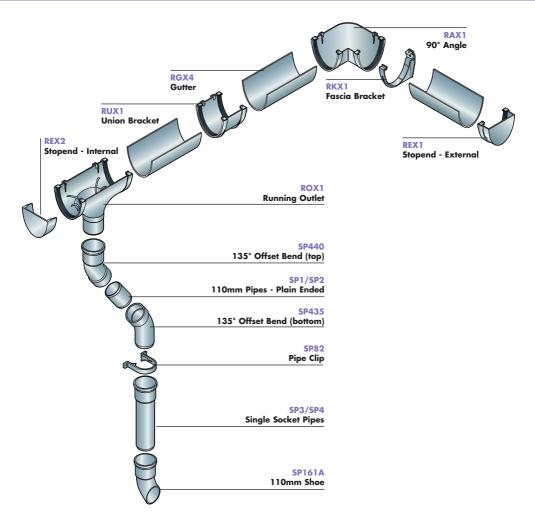


Rainwater Systems, such as Miniflo when used as an associated product with a water butt for the collection of rainwater, can lead to the award of credits under the Code for Sustainable Homes.

Miniflo 50mm downpipe would normally be installed, terminating directly into the top of a water butt.



## XtraFlo 170MM/110MM RAINWATER SYSTEM



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



#### **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.









## 170MM GUTTER AND FITTINGS BS EN 607:2004, BS EN 12200-1:2000, BS EN 1462:2004



	1	
Product	Colour	Code
Gutter		
	B W	RGX4
90° Angle		
	B W	RAX1
Running Outlet		
	B W	ROX1



Product	Colour	Code
Stopend		
External	B W	REX1
Internal		REX2
Fascia Bracket		
U	B W	RKX1



4000		
Product	Colour	Code
Union Bracket		
	B W	RUX1

## 110MM ROUND DOWNPIPE & FITTINGS BS EN 1329-1:2014, BS 4514:2000

Product		Colour	Code			
Pipe - Plain Ended						
	3m	B W	SP1			
	4m	B G	SP2			
Pipe - Single Soc	ket					
	3m 4m	B W	SP3 SP4			
Shoe						
		B W	SP161A			

Product		Colour	Code
Pipe Clip	)		
5	2	B W	SP82
Offset B	ends		
0	Ring Seal Top Solvent Bottom	B W	SP440
	Spigot/ Solvent Socket	B W	SP435
Hopper			
-		B W	RHX1

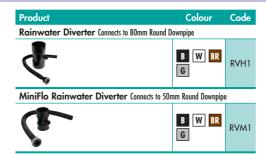
Product	Colour	Code						
921/2° Soil Pipe Bran	92½° Soil Pipe Branch							
<b>\</b>	B W	SP190						
92½° Soil Pipe Acce	ss Bend							
80	B W	SP169						
Access Pipe								
Socket/Spigot	B W	SP274						

Important when ordering: - To indicate the product colour(s) required, the following code suffixes should be used: B-Black, G-Grey, W-White.



## **EcoFlo** RAINWATER DIVERTERS

Product	Colour	Code					
Rainwater Diverter Connects to 65mm square and 68mm round downpipe							
19	B W BR	RVS1					
Connector Kit							
<b>ॐ</b>	B W	RVS2					



## **EcoFlo** WATER STORAGE SYSTEMS





Code

#### **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

#### 210L SLIM WATER BUTT

• 210L capacity

**Product** 

- Traditional shape water butt with a large capacity.
- Supplied with tap and childproof lid.
- Manufactured in the UK from recycled materials.

#### **Dimensions**

 Water Butt:
 Stand:

 57cm (22½") Diameter
 53cm (21") Diameter

 97cm (38") Height
 31cm (12") Height

## **StormSaver RAINWATER HARVESTING SYSTEM BS8515:2009**

**Product** 

Pedestrian Duty Lid

**Entrance Shaft** 



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, by using clever suction technology.
- Low decibel rating.

Code

PDL1

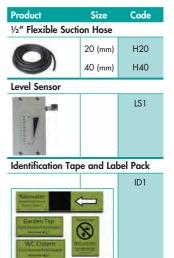
235 (mm) ES235

- Flow Rate of 10 litres per minute (same as mains pressure).
- Compact control unit, which can easily fit into either a kitchen cupboard, or be located in a utility room or garage.
- Cost effective solution to reuse rainwater effectively.
- The shallow dig tank is robust and comes with all the necessary components such as integral filtration, overflow siphon and inlet calmer pre-fitted for ease of installation.
- Ideal for new build properties and homes with up to 6 bedrooms.

Product	Size (L)	Code
StormSaver Pack	ages	
	1500 3000 5000 7500	\$1500 \$3000 \$5000 \$7500
Package includes:  • Underground sto  • 235mm Entrance  • Pedestrian duty I  • Control panel  • ½" Boosted float  • 20m ½" Flexible	shaft id for tank ing suction	

	635 (mm)	ES635
Control Panel		
		CP1
½" Boosted Float	ing Suctio	on Filter Kit
A DIE		FK1

Size



110mm Non-Return Valve - Single Flap

CE

Required for the system to comply with BS 8515

D550



## FLOPLAST PVC-U RAINWATER SYSTEMS

#### **Applications**

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

## Composition

All products are manufactured from unplasticised polyvinyl chloride (PVC-U) and comply with the material requirements of either BS EN 12200-1:2000, BS EN 607:2004, BS EN 1462:2004 or BS EN 1329-1:2014 as relevant.

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

#### **Accreditation**

All of our profiles are manufactured to BS EN 607:2004 (Gutters and fittings), BS EN 12200-1:2000, and BS EN 1329-1:2014 (Downpipes and fittings), BS EN 1462:2004 (Gutter brackets) within a quality management system assessed and registered by British Standards as meeting the requirements of BS EN ISO 9001:2015 (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.

## Specification, Technical Advice and Design Guidance

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

#### Installation

- 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 on page 27.
- 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 offset and at maximum intervals of 1.8 metres.
- Where necessary remove the old gutter and replace old fascia board with FloPlast low maintenance PVC-UE co-extruded fascia board.
- Establish the position of the running outlet, usually over an existing drain, and fix securely to fascia board
- Fix a fascia bracket 100mm short of furthest point from the outlet. Allow for a fall to the outlet (1:350 is recommended) using a string line.
- Fixings:
  - Fix fascia and union brackets at required intervals. Fascia brackets should be positioned so as to avoid the fixing screws splitting the top edge of any timber fascia board. All brackets should be secured to the fascia board with two 25mm x 5mm (1" x 10) screws or one 40mm x 5mm (1½" x 10) screw. The "Cast Iron" fascia brackets must have two fixings.
  - Unions should be fixed using a 25mm x 5mm (1" 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.
  - Round head screws are the recommended style
    of screw, however counter sunk can be used
    as long as care is taken not to overtighten,
    particularly when using power tools.
- Lubricate all gutter seals with FloPlast silicone spray lubricant to ensure an easy fit and to allow for movement caused by expansion and contraction.
- 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.)

- Use a union bracket or angle to join to next gutter length in order to build up a gutter run. Use a stopend to complete the run.
- Downpipe installation starts at the outlet. If an offset is required use two offset bends with or without a short piece of pipe, alternatively if installing square downpipe use an adjustable offset bend. Ensure a 6mm gap is left at the top of the downpipe for expansion.

Pipe sockets if required should be secured to the wall with a pipe clip.

At the base of the pipe, fit a shoe secured with a pipe clip or connect downpipe to the underground drainage system using a 110mm x 68mm reducer (SP96/D96 or D97).

#### **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 12056-3:2000 "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.

#### **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.

#### **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 M2

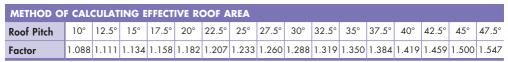
B = Half width of gable end or hip

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.



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



## FLOPLAST PVC-U RAINWATER SYSTEMS

OUTLET AT END OF GUTTER RUN								
		Gutter Fi	xed Level		Gu	ıtter Fixed	at 1:350 fa	II
	Gutter Flow Roof Area (litres/sec) (m²)		Gutter Flow (litres/sec)		Roof Area (m²)			
System	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
<b>Square Line</b> 65mm Square Downpipe	1.70	1.53	81	73	2.00	1.80	96	86
<b>Hi-Cap</b> 68mm Circular Downpipe	2.05	1.84	98	88	2.56	2.30	123	111
<b>Hi-Cap</b> 80mm Circular Downpipe	2.25	2.02	108	97	2.79	2.51	134	121
Niagara® 65mm Square Downpipe	2.40	2.16	115	104	2.90	2.61	139	125
<i>Niagara</i> * 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								
Gutter Fixed Level					Gutter Fixed at 1:350 fall			
	Gutter Flow Roof Area (litres/sec) (m²)		Gutter Flow (litres/sec)		Roof Area (m²)			
System	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
<b>Square Line</b> 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
<b>Hi-Cap</b> 80mm Circular Downpipe	4.18	3.76	200	180	5.50	4.95	264	238
Niagara® 65mm Square Downpipe	4.50	4.05	216	194	5.30	4.77	254	229
<i>Niagara</i> ® 80mm Circular Downpipe	4.95	4.45	237	213	5.83	5.24	279	251
Xtrafio 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.

HOPPERS							
Code	Hopper Flow (litres/sec) Max flow rate	Roof Area (m²) 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 EN12056-3:2000 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.

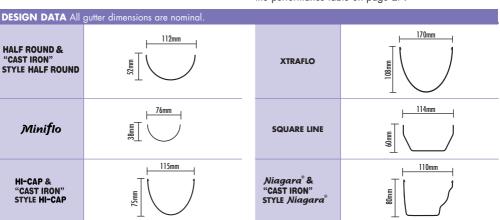
Pipe Dimensions	Normal Size	Actual OD		
Circular	50mm (2½")	50.3mm		
	68mm (2½")	68.48mm		
	80mm (3")	80.15mm		
	110mm (4")	110.2mm		
Square	65mm (2½")	65mm		

#### **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 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 27.





## FLOPLAST PVC-U RAINWATER SYSTEMS

RAINWATER SYSTEM COMPATIBILITY CHART								
Manufacturer	Xtraflo 170mm	Niagara <sup>®</sup> Ogee	Hi-Cap	Half Round 112mm	Square Line	MiniFlo		
Brett Martin	X (Deepstyle 170)	× (Prostyle)	(Deepstyle)	(Roundstyle)	(Squarestyle)	X (No equivalent)		
Osma	X (No equivalent)	X (Stormline)	(Deepline)	(Roundline)	X (Squareline)	X (No equivalent)		
Polypipe	X (No equivalent)	X (Sovereign)	(Polyflow)	~	~	X (Half Round)		
Polypipe Terrain	X (No equivalent)	<b>x</b> (Omega)	(Rapidflow)	X (Crescent)	(Corniche)	X (No equivalent)		
Marley	X (No equivalent)	× (Classic)	(Deepflow)	(Clipmaster)	(Flowline)	X (Miniline)		
Hunter	X (No equivalent)	(Regency)	(125)	~	(Squareflo)	× (Half Round)		
Swish	X (No equivalent)	× (Ogee)	X (Deepflow)	~	~	X (No equivalent)		

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

## TRANSPORT, HANDLING AND STORAGE

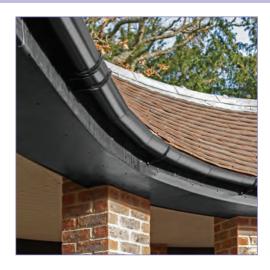
**FloPlast** PVC-U pipes and gutters are supplied in secure bales bound with straps within timber frames, **FloPlast** recommend that movement of bales is carried out by fork lift or other mechanical device using webbing or rope strings.

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.



## FREQUENTLY ASKED QUESTIONS

#### Do I need to fit my gutter with a gradient?

FloPlast's domestic eaves gutters, especially when fixed with a rafter bracket, should be fitted at a gradient no greater than 1:350 fall. The gradient should not be too steep, as this will cause an excessive gap between the lowest edge of the roof and the top of the gutter. Gutters fitted with a fall will have a higher drainage capacity, please refer to our flow rate calculator at **www.floplast.co.uk** or page 26/27 of this brochure.

# How do I work out what flow rate is required?

A flow rate calculator is available on our website at www.floplast.co.uk, alternatively please contact 01795 431731 to speak to our technical department.

## How can I prevent leaves blocking my gutters?

Use **FloPlast GutterBrush**. FloPlast also manufactures **FloGuard**, a non restrictive system which prevents both debris and leaves collecting on the inside of the gutters. Balloons are available, for added protection in the outlets.

#### Can FloPlast gutters be painted?

FloPlast's gutters are produced from PVC-u and are considered low or relatively maintenance free. It may be necessary from time to time to clean our lighter gutter systems. We recommend that a soapy warm water solution is used when cleaning - in severe cases a non-abrasive kitchen cream cleaner can be used.

If the gutter needs to be painted, the system should be cleaned, with a degreasing agent such as sugar soap. Once cleaned 2 coats of a good quality gloss paint should be applied. Avoid scouring or roughing the surface of the plastic as this will affect the final appearance of the painted product.

## What capacity of water do your gutters hold?

Please refer to our section on Flow Rates on page 28 for more information

# What are the maximum centres for gutter fascia brackets?

In general, maximum centres should be 1m. However, different profiles and downpipe configurations present other design considerations. Please refer to our Installation Guide on page 26 or view our video installation guide at www.floplast.co.uk

## Which screws should be used to secure fascia brackets to fascia boards?

For 2 hole fixing use 25mm x 5mm non-ferrous round head screws 1 hole fixing use 32mm x 6.5mm non-ferrous round head screws.

# How can "Cast Iron" Style gutters be connected to traditional cast iron?

FloPlast have an extensive range of adaptors. Use the 2 piece adaptor RD5.

## Where and how far apart should downpipe clips be?

Downpipe clips should be placed below the sockets of offset bends, sockets, branches and shoes, and at maximum intervals of 1.8 mtrs

## **Do I need to allow for expansion on offsets?** It is not necessary to make any allowance for

It is not necessary to make any allowance for expansion between offset bends.

# How do I fit my downpipe into Underground Drainage?

Please refer to our section on downpipe adaptors.

## What brackets do I use when installing gutter directly to the rafters?

The standard gutter bracket, bolts to the galvanised top, side and rise & fall rafter brackets.

## How do I connect to a neighbour's different gutter?

FloPlast have a range of adaptors for most applications, please refer to our section on rainwater adaptors and compatibility table on page 30.



# **FloPlast** building the future



#### **Contact Details:**

FloPlast Limited, Castle Road, Eurolink Business Park Sittingbourne, Kent ME10 3FP, UK

## Tel

01795 431731

## Fax

01795 431188

## E-mail

sales@floplast.co.uk

## Website

www.floplast.co.uk

## **Sales Office Direct Line** 01795 421422

#### **Brochures available:**













































