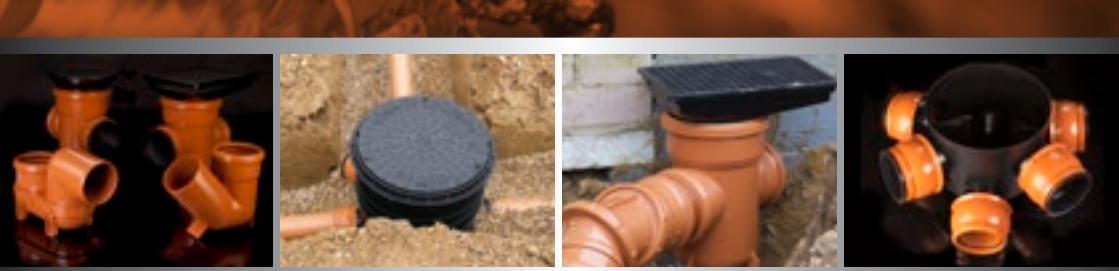
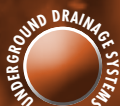


**FloPlast**  
building the future



# Underground Drainage Systems





**FloPlast** are an established market leader in the manufacture and supply of Plastic Building and Plumbing systems in the UK. The Company's specialist areas are PVC-U Roofline, Window & Cladding Systems, Rainwater Systems, Soil & Waste Systems, Hot & Cold Plumbing Systems and Underground Drainage Systems.

**FloPlast** Underground Drainage Systems comply where applicable with the requirements of the following British Standards.

**BS EN 1401-1 PVC-U**  
Underground Drainage Systems (SN4)

**BS EN 13476-2**  
Structured Wall Piping Systems (SN8)

**BS4660 PVC-U**  
Ancillary Items (Rodding Eyes, Access fittings etc)

**BS EN 124** Access Covers, Gratings and Frames.

**BS EN 13598 - 1** Plastic Inspection Chamber for Drainage.

"Plastic piping systems for non-pressure underground drainage and sewerage. Unplasticised polyvinyl chloride (PVC-U). Polypropylene (PP) and Polyethylene (PE)."

Part 1: Specification for ancillary fittings including shallow inspection chambers.

For CE DOP's (Declaration of Performance), please refer to our website at [www.floplast.co.uk](http://www.floplast.co.uk).

Drainage Pipe has a British Standard Kitemark.



KM 563462



KM 563461



KM 544232

### 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.





### Transport, Handling & Storage

**FloPlast** PVC-U pipes are supplied in secure bales bound with straps within timber frames, **FloPlast** recommend that the movement of bales is carried out by the 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.

### Application

**FloPlast** Underground Drainage Systems are designed for use in gravity drainage and sewerage installations at depths of up to ten metres.

### Composition

All drainage pipes and the majority of fittings are manufactured from unplasticised Polyvinyl Chloride (PVC-U). Inspection chambers, 0 - 90° adjustable bend, gully traps and gully grids are manufactured from polypropylene.

### Colour


Pipes and fittings are manufactured in golden brown with exceptions as indicated in the product guide.

### Terms & 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.

## ANCILLARIES

Product	Code
40ml Compressed Silicone Lubricant Spray	
	SL40

800gm Lubricant Gel	
 Water Council Approved KIWA KM 51564 BS6209	SG800

Product	Code
100gm Silicone Grease	
	SG100

125ml Solvent Cement	
 	SC125

Product	Code
250ml Solvent Cement	
 	SC250

**FloPlast** socketed underground pipe incorporates the latest blown end technology. The easy fit rubber seal is held in place via a circular plastic insert allowing a retention of the seal in transit and a perfect connection for jointing.

All Push-Fit underground fittings have a captive seal and snap cap which are designed to be user-friendly - no sharp edges, and with space restrictions in mind, allow for an easy fit connection. The seal is double ribbed, and the sockets incorporate a recessed area to provide space for the rubber seal to locate as the pipe is inserted, forming a high-capacity pressure point.




Manufacturers that produce to these standards: BS EN 1401/BS 4660/BS 7158/ BS EN 124	110mm	160mm
<b>Hepworth</b>	✓	✓
<b>Brett Martin</b>	✓	✓
<b>Osmo/Wavin</b>	✓	✓
<b>Polypipe</b>	✓	✓
<b>Polypipe Terrain</b>	✓	✓
<b>Marley</b>	✓	✓
<b>Hunter</b>	✓	✓

### 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.





Visit [www.floplast.co.uk](http://www.floplast.co.uk) and download a pdf step by step guide to help with your installation.



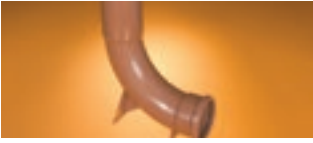
Product	Code
<b>Pipe</b>	
 Plain Ended (Bale quantity 50)	3m D043 6m D046
 Perforated Plain Ended (Bale quantity 50)	6m D046P
 Single Socket (Bale quantity 50)	D143 D146

Product	Code
<b>Pipe Coupling</b>	
 Single Socket Coupling	D124
 Double Socket Coupling Removable centre stop for use as slip coupling	D105

Product	Code
<b>Single Socket Bends</b>	
 87½° Bend (Socket/Spigot)	D161
 45° Bend (Socket/Spigot)	D163
 30° Bend (Socket/Spigot)	D164
 15° Bend (Socket/Spigot)	D167

Product	Code
<b>Double Socket Bends</b>	
 87½° Bend	D561
 45° Bend	D563
 30° Bend	D564
 15° Bend	D567

# 110MM PIPE & FITTINGS BS 4660, BS EN 1401-1, BS EN 124, BS EN 13476-2




Product	Code
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Rest Bends	
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	87 $\frac{1}{2}$ ° Rest Bend	D571
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	87 $\frac{1}{2}$ ° Settlement Rest bend	D570
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Adjustable Bend	
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	0-90° Adjustable Bend (PP-Do not solvent weld)	D560
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Large Radius Bends	
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	87 $\frac{1}{2}$ ° Plain End	D281
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	45° Plain End	D283
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	87 $\frac{1}{2}$ ° PE with Channel Access	D581
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	45° PE with Channel Access	D583
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Equal Junctions Double Socket	
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	87 $\frac{1}{2}$ ° Junction	D190
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	45° Junction	D210
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Equal Junctions Triple Socket	
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	87 $\frac{1}{2}$ ° Junction	D191
--	-----------------------------	------


	45° Junction	D211
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Product	Code
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Access Fittings	
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	87 $\frac{1}{2}$ ° Access Bend (Socket/spigot)	D169
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	Access Pipe (Socket/spigot)	D274
---	--------------------------------	------

	Screwed Access Cap (Spigot)	D292
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	Channel Access Pipe PE 1.5m	D870
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Rodding Points	
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	PVC Oval Rodding Point (Spigot)	D881
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	PVC Oval Rodding Point (Socketed)	D882
---	--------------------------------------	------

	PVC Square Rodding Point (Spigot)	D883
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	PVC Square Rodding Point (Socketed)	D884
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(45 rodding point with sealed access cover suitable for loading up to 10kN (1 tonne) where the frame of the cover is supported by a concrete plinth)

DrainGuard	
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	Fits round and square downpipe (Black)	DG1
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110mm non-return valve €€	
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	110mm Non-Return Valve-Single Flap	D550
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## 110MM PIPE & FITTINGS BS 4660, BS EN 1401-1, BS EN 124

Product	Code
<b>Universal Traps</b>	
 Universal Gully Trap (Socket/Spigot 45°)	D500
 Low Back 'P' Trap	D501
 Leaf/Debris Interceptor Gully (Black)	D94
 Spare Square Grid (Polypropylene)	D502


<b>Universal Traps</b>	
 Square Blank Cover Grid	D508
 Square Hopper Including Polypropylene Grid	D504
 Rectangle Blank Cover Grid	D507
 Rectangular Hopper (Including Polypropylene Grid)	D506

<b>Bottle Gully Traps</b>	
 Bottle Gully Circular Grid	D510
 Bottle Gully Square Grid	D515
 Bottle Gully Rectangular Grid	D520
 Back Inlet Bottle Gully Rectangular Grid	D530
 Back Inlet Bottle Gully Circular Grid	D540

Product	Code
<b>Hoppers and Grids</b>	
 Round Hopper and Grid (215mm diameter with height adjustment of 32mm)	D514
 Square Hopper and Grid (216x216mm with height adjustment of 32mm)	D518
 Rectangular Hopper and Grid (295x216mm with height adjustment of 32mm)	D524
 200mm Riser	D505

<b>Adaptors</b>	
 110mm Waste Adaptor (Grey/Black/White)	SP95
 110x68mm Rainwater Adaptor (Grey/Black/White)	SP96
 Universal Waste Adaptor (32/40/50mm)	D95
 Universal Rainwater Adaptor (Square/Round)	D96
 80x110mm Adaptor	D97
 160x110mm Level Invert (Socket/Spigot)	D99
 Supersleve Clay Adaptor DS (Black)	D100
 Hepsleve Clay Adaptor DS (Black)	D101

## 110MM PIPE & FITTINGS BS 4660, BS EN 1401-1, BS EN 124

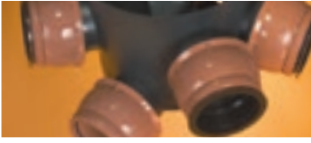
Product		Code
<b>Drain Connector</b>		
	(Black/Grey only)	SP107
Connects directly into socket of a cast iron clay or plastic pipe system to provide a socket for plastic pipe.		
<b>Flexible Couplings, Connectors and Adaptors</b>		
	Flexi-Coupling 98mm-115mm	D102
	Flexi-Adaptor A: 98mm-115mm B: 120mm-136mm	D103
<b>Socket Plug</b>		
		D296

### Features & Benefits

- Provides an efficient means of waste water drainage and foul discharge from above ground drainage systems.
- Manufactured in PVC-U to give a strong durable product, lightweight and easy to work with and suitable for high temperatures and waste discharge.
- Fittings have an aesthetic modern look, are compact in size yet remain within the British Standard specification.
- Push-Fit joint through an innovatively designed seal and snap cap system.
- Comprehensive range of fittings to suit most installations and which integrate with all FloPlast above and below ground drainage systems.
- Colours available: Terracotta.



## 110MM PIPE & FITTINGS BS 4660, BS EN 1401-1, BS EN 124, BS EN 13598-1+2



Product	Code
<b>Large Inspection Chamber - 450mm Diameter (LIC)</b>	
 270mm Deep Chamber Base - 5x110mm flexible inlets / Supplied with 4 socket plugs (Allows for 0-20° of movement)	D900
 270mm Deep Chamber Base - 5x110mm fixed inlets / Supplied with 4 socket plugs	D910
 235mm Extension Riser (Can be cut to size)	D915
 Riser Sealing Ring (Use with each Riser)	D935
 235mm Extension Riser and Seal (Can be cut to size)	D916
 450mm Plastic Cover & Frame (35 kN)	D930*
 450mm Plastic Cover & Frame with 350mm Restricted Access (35 kN) (For use with I.C. over 1.2mtr deep up to 3mtr)	D931*
 Cast Iron Cover & Plastic Frame (35 kN) (For replacement purposes only)	D923
 Block Paving Cover 450mm Square/Round	D933
 450mm Ductile Iron Cover/Frame (B125) Conforms to the requirements of STA7.	D934

Product	Code
<b>Mini Access Chamber - 300 Diameter (MAC)</b>	
 270mm Deep Multi Inlet Chamber Base - 5x110mm flexible inlets / Supplied with 4 socket plugs (Allows for 0-20° of movement)	D800
 270mm 45° Inlet Chamber Base - 3x110mm flexible inlets / Supplied with 2 socket plugs (Allows for 0-20° of movement)	D801
 270mm 90° Inlet Chamber Base - 3x110mm flexible inlets / Supplied with 2 socket plugs (Allows for 0-20° of movement)	D802
 270mm 45° Inlet Chamber Base - 3x110mm Fixed Inlets / Supplied with 2 socket plugs	D810
 100mm Chamber Riser With integral rubber ring (60mm cut down facility)	D820
 200mm Chamber Riser With integral rubber ring (60/100/150mm cut down facility)	D822
 Square 340mm Sealed Plastic Screw Down Cover and Frame (35kN)	D830
 Round 300mm Sealed Plastic Screw Down Cover and Frame (35kN)	D831
 Block Paving Cover 300mm Square/Round	D932

\*To conform with new document H Building Regulations H2000 use D930 or D931 as required.



## INSPECTION CHAMBERS (POLYPROPYLENE)

**FloPlast** 300mm Mini Access Chamber and 450mm Large Inspection Chamber offer an alternative to traditional manholes and may be used in depths of up to 600mm for the MAC, 1200mm and 3000mm for the Large Inspection Chamber.

### 300mm Mini Access Chamber (MAC)

**FloPlast** innovative design for the MAC, brings unrivalled flexibility to the underground drainage market.



The MAC has flexible connections for all inlets allowing a 10° movement in any direction. This is of great assistance to the installer where the connecting pipes are not perfectly aligned with the MAC inlets. In many instances it will eliminate the need to install an extra bend and provide a saving on the cost of the installation.

In addition, the variety of inlet combinations available on the **FloPlast** Mini Access Chamber and the choice of two chamber risers, 100mm and 200mm, provide installers with a significant advance in the ease of which they can plan and install their drainage system. The MAC base is designed to facilitate the stacking of bases on top of one another to give a space saving storage solution for the merchant stockist.

In summary, the **FloPlast** Mini Access Chamber design and flexibility provides a practical, innovative and cost effective solution for the provision of access in a drainage system.

BS EN 13598 - 1: 2010 Plastic Inspection Chamber for drainage.

UK Patent No. GB2357127.

### 450mm Diameter Large Inspection Chamber (LIC)

**FloPlast** product innovation is again demonstrated with its 450mm Diameter Large Inspection Chamber.

To comply with the changes to Approved Document H of The Building Regulations 2000, significant research and development has gone into the design of this unique product. The chamber base incorporates five 110mm flexible inlets, which allow 10° of movement in any direction.



The plastic cover and frame can take loadings of up to a maximum of 35kN. Should the connection of D930/D931 cover and frame be required directly to the base D900/D910, then riser D915 must be used and cut to suit, by cutting just above the bottom most large flange/rib.

(Please ensure sealing rings are used in conjunction with each riser section).

**FloPlast** installation details are concise, however they are provided as general guidelines only.

**FloPlast** recommend that reference should be made to the appropriate Codes of Practice for Underground Drainage Systems.

European Standards BS EN 752:2008 Drain and sewer systems outside buildings and BS EN 1610:2015 Construction and testing of drains and sewers, have been introduced. These have replaced British Standards BS8301 (Code of Practice for Building Drainage).

Meets with the requirements of Sewers for Adoption - 7th Edition (SfA7), type 3 and 4 typical inspection chamber detail.

### Useful Measurements for Installation of MAC & LIC

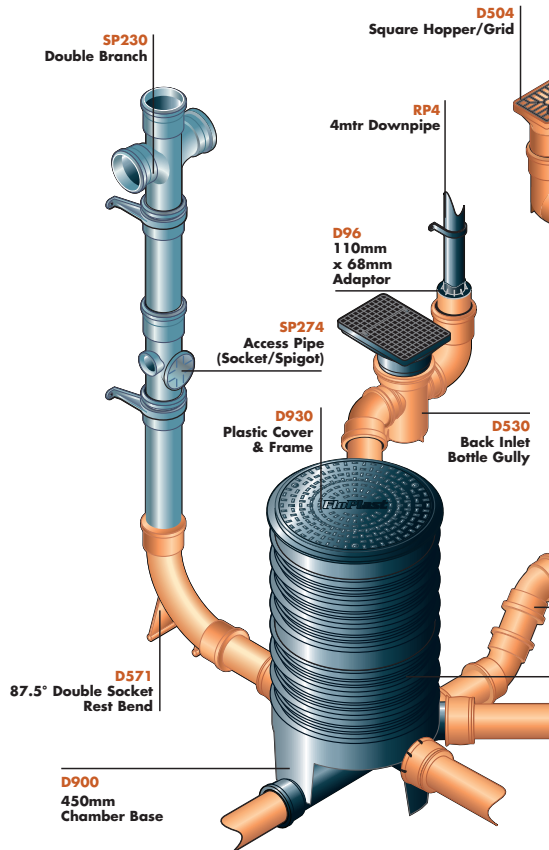
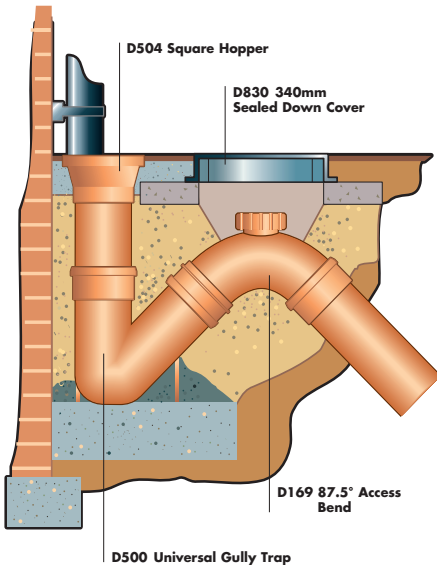
	Mac	inc' Lid
Base only	270	300
Base + one riser (100mm)	370	400
Base + one riser (200mm)	470	500
Base + (1 x 100 x 1 x 200) risers	570	600

LIC Invert Depth (mm)	270	505	740	975	1210	1445	1680	1915	2150	2385	2620	2855	3090
Number of Riser Required	Base only	1	2	3	4	5	6	7	8	9	10	11	12
	Cover Required	(D930) 450mm opening up to a maximum of 1200mm						(D931) 350mm opening up to a maximum of 3000mm					

## UNDERGROUND DRAINAGE

### Installation guide - Universal gully trap with access facility

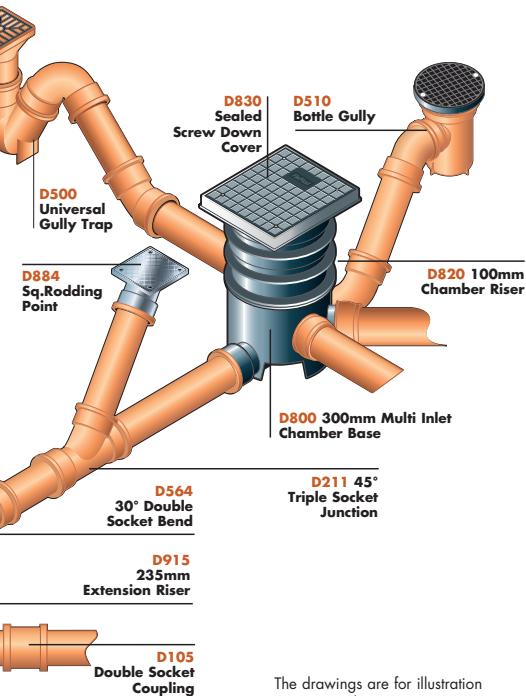
- The gully should be assembled out of the ground.
- Place the gully on a substantial base e.g. Pre-cast concrete slab, bricks etc and stabilise by concreting base up to the level where the supporting feet meet the gully body. Ensure that concrete does not enter the ring seal joint.
- Connect the Access Bend (D169) onto the 45° spigot end of the gully using FloPlast Silicone lubricant to assist with easy insertion.
- Make connection to drainage run using socketed pipe (D146).
- Backfill with suitable material to the required level.
- To complete the access installation, set in concrete an airtight 340mm Sealed PVC Cover and Frame (D830).



## UNDERGROUND DRAINAGE

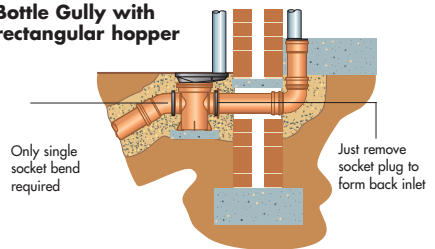
### Back Inlet Bottle Gully (BIG)

- Screw down, hinged rectangular heavy duty hopper.
- Heavy duty circular hopper available (D540).
- Both hoppers allow for height adjustment of 32mm.
- Sealed dip tube easily removed for rodding purposes.
- Gully riser allows an increase of invert depth up to 200mm (D505). Maximum of one riser only.
- Back inlet socket plug easily removed. No need to drill.

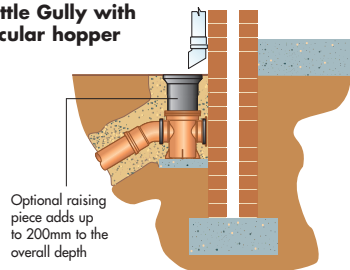


The drawings are for illustration purposes only.  
For detailed installation advice please contact your local stockist.

















### Bottle Gully with rectangular hopper



### Bottle Gully with circular hopper





Product	Code
<b>Pipe</b>	
 Plain Ended (bale quantity 33)	6m 6D046
 Single Socket (bale quantity 33)	3m 6D143 6m 6D146
<b>Pipe coupling</b>	
 Double Socket Coupling Removable centre stop for use as slip coupling	6D105
<b>Single socket bends</b>	
 87½° Bend (Socket/spigot)	6D161
 45° Bend (Socket/spigot)	6D163
 30° Bend (Socket/spigot)	6D164
 15° Bend (Socket/spigot)	6D167
<b>Double socket bends</b>	
 87½° Bend	6D561
 45° Bend	6D563
 30° Bend	6D564
 15° Bend	6D567
<b>Adaptors</b>	
 160x110mm Level Invert (Socket/spigot)	D99
  Flexi-Adaptor Cast iron/160mm	6D102
  Clay Adaptor A: 160mm-180mm B: 180mm-200mm	6D104

Product	Code
<b>Equal junctions</b>	
 87½° Junction (Double Socket)	6D190
 45° Junction (Double Socket)	6D210
 87½° Junction (Triple Socket)	6D191
 45° Junction (Triple Socket)	6D211
<b>160/110mm Unequal junctions</b>	
 160x110mm 87½° Junction (Double socket)	6D198
 160x110mm 45° Junction (Double socket)	6D218
<b>160mm Large Inspection Chamber - 450 Diameter (LIC)</b>	
 160mm x 160mm 90° Chamber Base With two 45° 110mm Inlets	6D900
 235mm Extension Riser (Can be cut to size)	D915
 Riser Sealing Ring (Use with each riser)	D935
 235mm Extension Riser and Seal (Can be cut to size)	D916
 450mm Plastic Cover & Frame (35 kN)	D930*
 450mm Plastic Cover & Frame With 350mm restricted access (35 kN) (For use with I.C. over 1.2mtr deep up to 3mtr)	D931*
 Cast Iron cover & Plastic Frame (35 kN)	D923
*To conform with new document H Building Regulations H2000 use D930 or D931 as required.	
<b>Socket Plug</b>	
	6D900P

## WEIGHTS AND DIMENSIONS

### Pipe weights

#### Single socket pipe

Size	Length	Weight (kg/m)	Code
110mm	3m	1.63	D143
	6m	1.63	D146
160mm	3m	3.03	6D143
	6m	3.21	6D146

#### Plain ended pipe

Size	Length	Weight (kg/m)	Code
110mm	3m	1.6	D043
	6m	1.26	D046
160mm	6m	3.03	6D046

#### Plain ended perforated pipe

Size	Length	Weight (kg/m)	Hole size	Hole Centres	No. of Holes	Code
110mm	6m	1.72	7mm	20mm	210	D046P

### Pipe and fitting dimensions

#### Wall Thickness

Product	min/max	110mm	160mm
Pipes	min	3.2	4
Fittings	min	3.2	4

#### Mean outside diameter pipe and fittings spigot

Min/Max	110mm	160mm
Min	3.2	4
Max	3.8	4.6

### Size of bales

Product	No. of 3m/6m lengths per bale	Dimensions		Weight per bale
		height	width	
D043	50	3m	1.2m	245kg
D143	50	3m	1.2m	245kg
D046	50	6m	1.2m	490kg
D146	50	6m	1.2m	490kg
6D143	35	3m	1.2m	337kg
6D046	35	6m	1.2m	657kg
6D146	35	6m	1.2m	674kg

## INSTALLATION GUIDE

### Trench Detail and Backfill Material

The trench should be constructed 300mm wider than the outside diameter of the pipe to be installed. Where the “as dug” material is suitable, the bottom of the trenches may be trimmed to form a pipe bed. The material can also be used as a sidefill and backfill. Imported granular backfill materials such as pea shingle, used in accordance with the recommendations of BS5955 Part 6: 1980 Appendix A, having a nominal particle size not exceeding 10mm, should be used as required up to and over the crown of the pipe. When this has been achieved the “as dug” material can be replaced into the trench. Once 300mm of material has been replaced, mechanical compaction can commence.

### Testing

Testing of all drainage installations should be carried out in accordance with the requirements of the appropriate approving authority, using either air or water testing. References should be made to current editions of Building Regulations (Approved Document ‘H’) BS EN 752:2008 and BS EN 1610:2015. Where drainage appears inside buildings BS EN 12056 should also be consulted.

### Joining

#### Pipe End Preparation

When cutting pipes ensure that all ends are chamfered and are free from swarf, grit and dirt.

#### Ring Seal Joints

The FloPlast Ring Seal Joint acts as both a seal and expansion joint. The following sequence should be adhered to:

- Check that all ring seal sockets are properly located in their recessed position.
- Ensure spigots and ring seal sockets are dry, clean and free from grit and dirt.
- Lubricate all ring seal fittings. This will allow for a fast and efficient connection.
- Ensure all pipes and fittings are in the correct position.
- Insert pipe fully into the socket, then withdraw pipe by a minimum of 12mm. This will allow for expansion.

### Adaptors

External rainwater downpipes can be connected directly to a surface water drain or, depending on the design, via a gully trap to the underground drainage system.

The diameter of FloPlast’s 110mm PVC- U above and below ground drainage systems are the same and therefore a direct connection may be achieved without the use of an adaptor. Where rainwater pipes connect directly to a drain, a suitable reducer will be required as follows:

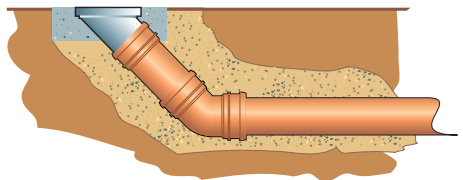
- **SP96:** 110mm x 68mm Rainwater Adaptor for round downpipe. RDS2 should be used with SP96 for connection to 65mm square downpipe.
- **D96:** Universal Rainwater Adaptor for square and round downpipe.
- **D95:** Universal Waste Adaptor for 32mm, 40mm and 50mm waste pipe connection to 110mm Soil/Drainage.

Connection to other materials such as Cast Iron, Supersleve and Hepsleve, is achieved by the use of a range of rigid and flexible couplings and adaptors.

### Access and Rodding Points

Access is very important on all installations for testing, inspection, and removal of any blockage or debris. Rodding in both directions can be achieved by using a Mini Access Chamber (MAC) or 450mm Large Inspection Chamber (LIC) in conjunction with access fittings.

Rodding points are more commonly used in storm water drainage systems where the rodding point is located at the head of the drain run connection to a chamber, and being no further than 22 metres away from the chamber. The rodding point should be enclosed in a concrete surround to provide support and to ensure that it does not become mislaid at ground level.



## Inspection Chambers

### Mini Access Chamber (MAC)

A mini access chamber has a relatively narrow riser shaft, and is used for inspecting, clearing, and rodding a drain line.

The narrowness of the riser shaft permits limited clearing and rodding to a maximum depth to invert of 600mm.

For SFA7 installations this chamber can be installed up to 2000mm.

Any unused side connections should be sealed with a plain socket plug.

Should bends be required to change direction, these should be sited at the point of entry to the chamber.

Side branches of the chamber should not be used to change direction of the main flow, as a self-cleansing flow through the chamber cannot be guaranteed.

Intermediate depths can be achieved by cutting a riser at the indicated points.

The frame and cover should also be adjusted to suit the level of the adjacent ground and surrounded in a minimum of 50mm of concrete.



Scan with your smart phone to watch our Underground installation video

### Large Inspection Chamber (LIC) incorporating Non Man Entry Restricted Access Cover & Frame

The large diameter of the riser shafts of inspection chambers enables them to be installed to a maximum depth to invert of 1200mm

when used in conjunction with a 450mm opening cover and frame. The chamber complies with Approved Document H of the Building Regulations 2000 by using the 350mm reduced opening cover and frame for installations over 1200mm up to a maximum of 3000mm invert depth. For SFA7 installations the invert depths are 1000mm and 3000mm.

The chamber is installed on a suitable bed dependent on the quality of the trench and backfill materials.

Backfilling is continued up to approximately 50mm of the finished ground level.

The frame and cover are placed on a bed of concrete around the top of the uppermost shaft, and adjusted to the finished level.

The frame is securely fixed through the wall of the chamber at the set location points using self-tapping screws. The cover is then secured to the frame with the captive screws. It is impossible for the cover to be removed without undoing the screws.

Intermediate depths can be achieved by cutting the riser at 60mm intervals; the frame also has 55mm of telescopic adjustment.

Any unused side connections should be sealed with a plain socket plug.

Should bends be required to change direction, these should be sited at the point of entry to the chamber.

Side branches of the chamber should not be used to change the direction of the main flow, as a self-cleansing flow through the chamber cannot be guaranteed.

Should the connection of D930/D931 cover and frame be required directly to the base D900/D910, then riser D915 must be used and cut to suit, by cutting just above the bottom most large flange/rib.




Product	Code
<b>Channel - 1 Metre length including grate (Pallet quantity 90) €€</b>	
	D700

<b>Drain Corner €€</b>	
	D710

<b>Garage Pack (Pallet quantity 16) €€</b>	
	D750

(Consists of 3x1m Channel lengths plus 1x End cap & 1x End outlet)

<b>Sump/Trap Unit and Basket €€</b>	
	D732


<b>End Cap €€</b>	
	D711

<b>End Outlet €€</b>	
	D712

<b>Balloon Guard</b>	
	D714

- Quality domestic surface Channel Drainage 110mm x 100mm (Internal channel dimensions).
- Anti-slip heel guard grating.
- Garage Pack available (3 x 1m length, end cap and outlet).
- 5 tonne spread load. 1.5 tonne point load.
- 4 outlets per length for maximum flexibility.
- Quad section for corners and junctions.
- Concave grid for maximum flow.


Product	Code
<b>Channel with Galvanised Grate (Pallet quantity 90) €€</b>	
	D701

<b>Drain Corner with Galvanised Grate €€</b>	
	D720

<b>Galvanised Garage Pack (Pallet quantity 16) €€</b>	
	D751

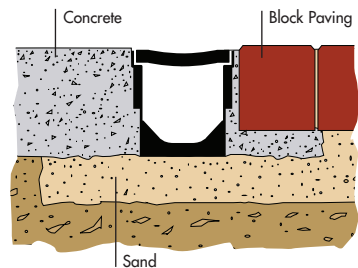
(Consists of 3x1m Channel lengths plus 1x End cap & 1x End outlet)

<b>Sump/Trap Unit and Basket with Galvanised Grate €€</b>	
	D733

<b>Threshold Channel Drain - 1m €€</b>	
	D730

<b>Corner Spacer €€</b>	
	D715

<b>Channel Drain Jointing Clip</b>	
	D734





**Domestic Channel Drainage**  
**Easy to install with concrete or paving**

1. Dig trench for FloDrain, allowing for 50mm deep compacted sand base and wide enough for a minimum of 100mm backfill of concrete on each side.
  2. Fix a string line to finishing height of grate 2mm below final surface level.
  3. Allow a fall of approx. 5mm for every 1m length (1:200).
  4. Start installation at lowest point of the run to accommodate any cut lengths which should be installed at the point furthest from the outlet.
  5. FloDrain joints and end caps to be sealed with silicone sealant.
  6. Use an end cap at highest point of FloDrain.
  7. Connect the lowest end of FloDrain to 110mm PVC- U BS EN 1401 drainage pipe using either an end outlet or the preformed channel bottom outlet to allow water to drain away. Contact FloPlast for additional coupling details for other connections e.g. clay pipes etc.
  8. FloDrain can be cut to length with a hacksaw. Install with grate fitted.
  9. Protect grate with tape before concrete is poured.
  10. Finish concrete 2mm above level of grate.
  11. Allow 72 hours to cure before vehicle use or removing grates.
  12. To remove grate, simply run a screwdriver along the edge of the grate to dislodge.
  13. If installing block paving or paving slabs, haunch around channel with concrete to a height which allows the depth of the block or slab to finish 2mm above the level of grate.
- All FloDrain installations must be set in concrete.



Easy to use channel to channel locking system



Certified to Load Class A15  
 BS EN 1433 = 1.5 tonne



Built in heel guard and anti slip system



90° Tee



4 Way Junction



90° Bend

## GroundGuard GROUND REINFORCEMENT SYSTEM

Ground Guard is a linked paving system, manufactured from Polyethylene, that provides a durable safe and eco-friendly surface for grass reinforcement, ground stabilisation and gravel retention for pedestrian and vehicle access areas.



### Suitable for:

- Additional/overflow grass car parks.
- Walkways and disabled access routes.
- Golf buggy paths.
- Driveways and residential lawn parking.

Please visit [www.floplast.co.uk](http://www.floplast.co.uk) for installation instructions.

### Product

### Code

**GroundGuard** Tiles



Pack of 20 = 3 square metres  
1 Tile = 390 x 390 x 40mm

Tested in excess of 200 tonnes  
per square metre spread load

G40


## LAND DRAINAGE


**Land Drainage** is used to remove excess water from fields and gardens, in fact any area where excessive water is a problem.

The perforations allow seeping water to ingress the pipe, capillary action then maintains the water within the pipe allowing it to flow to its destination i.e. Stormwater Attenuation Tanks, also known as Modular Plastic Geo Cellular Units (egg crates) or a watercourse (stream, lake etc).


### System Features


- Perforated and coiled land drainage pipe is manufactured in HDPE.
- Normally used in agriculture and in building construction sites.
- Particularly beneficial in areas with heavy ground conditions i.e. clay.
- Relieves hydrostatic pressure.

Product	No	Size O.D	Code
	80mm x 25m	L8025	
	100mm x 25m	L10025	

Product	Code
<b>Perforated Plain Ended Pipe</b> 	6m D046P


BS EN 1401, BS EN 13476-2


Product	No	Size O.D	Code
	80mm	LC80	
	100mm	LC100	


Product	Code
<b>Multi-Junction Branch</b> 	80/100mm L100


## NEW STORM WATER TWIN WALL PIPES AND FITTINGS


Product	Size	Code
	150mm	6T150
	225mm	9T225
	300mm	12T300
	450mm	18T450

Product	Size	Code
	150mm	6T150P
	225mm	9T225P
	300mm	12T300P
	450mm	18T450P

Product	Size	Code
	150mm	6T105
	225mm	9T105
	300mm	12T105
	450mm	18T105


Product	Size	Code
	150mm	6T563
	225mm	9T563
	300mm	12T563

Product	Size	Code
	150mm	6T561
	225mm	9T561
	300mm	12T561


Product	Size	Code
	150mm	6T191
	225mm	9T191
	300mm	12T191


**All seals must be lubricated.**

**Other variations of fittings/pipes are available for special order.**

Product	Size	Code
	225mm x 150mm	9T198
	300mm x 225mm	12T198
	450mm x 300mm	18T198

Product	Size	Code
	225mm x 150mm	9T218
	300mm x 225mm	12T218
	450mm x 300mm	18T218

Product	Size	Code
	150mm	6T150R
	225mm	9T225R
	300mm	12T300R
	450mm	18T450R

Product	Size	Code
	150 TW - 160 PVC	6T100
	225mm x 150mm	9T99
	300mm x 225mm	12T99
	450mm x 300mm	18T99

Product	Size	Code
	N/A	SG800

### System Features

- For use with agriculture, sports facilities and civills.
- Manufactured and tested to BBA HAPAS Roads and Bridge Standards.
- Made primarily from recycled material.
- Easily cut to required length.
- Smooth bore delivering excellent flow rates.
- A fraction of the weight of concrete pipes.
- Savings due to reduced manpower and plant costs.



# FloPlast

building the future



## Contact Details:

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

Tel  
01795 431731

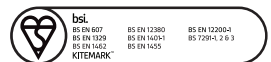
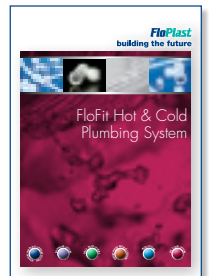
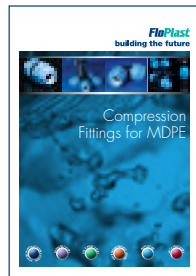
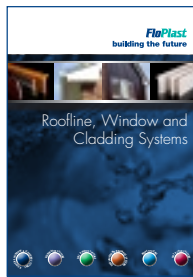
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## Brochures available:



April 2019

www.floplast.co.uk