



**FloPlast**

W wienerberger

**UNDERGROUND  
DRAINAGE SYSTEMS**





# Underground Drainage Systems

FloPlast Underground Drainage Systems are available in 110mm and 160mm sizes. All drainage pipes and the majority of fittings are manufactured from unplasticised Polyvinyl Chloride (PVC-U). Inspection chambers, 0 - 90° adjustable bend, bottle gully traps and gully grids are manufactured from polypropylene.

FloPlast underground pipe utilises the latest blown end technology and conforms to SN8 rating. 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. These are designed to be user-friendly with 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.

## Range Benefits



Tough & Durable



Withstands High Temps.



Lightweight Design



Wide Range of Fittings

## Accreditations





# 110mm UNDERGROUND PIPE AND FITTINGS

Standard: BS EN 13476-2, BS EN 1401-1    Kitemark: 544332    Material: PVC-U



## Plain Ended Pipe



| Size | Code |
|------|------|
| 3m   | D043 |
| 6m   | D046 |

## Perforated Plain Ended Pipe



| Size | Code  |
|------|-------|
| 6m   | D046P |

## Single Socket Pipe



| Size | Code |
|------|------|
| 3m   | D143 |
| 6m   | D146 |



▪ **Standard Size**

110mm diameter is the standard for domestic underground drainage in the UK and many other regions.

▪ **Usage**

Provides an efficient means of waste water drainage and foul discharge from above ground drainage systems.

▪ **Material**

Manufactured in PVC-U to give a strong durable product which is lightweight and is resistant to corrosion and chemicals.

▪ **Fittings**

Comprehensive range of fittings to suit most installation. Integrates with all FloPlast above and below ground drainage systems.

▪ **Joining**

Push-Fit joint through an innovative designed seal and snap cap system.

▪ **Compliance**

Conforms to BS EN 1401-1 standards in the UK.

**Pipe Coupling**



| Information   | Code |
|---------------|------|
| Single Socket | D124 |

**87½° Single Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Spigot | D161 |

**87½° Double Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Socket | D561 |

**Pipe Coupling / Slip Coupling**



| Information   | Code |
|---------------|------|
| Double Socket | D105 |

**45° Single Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Spigot | D163 |

**45° Double Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Socket | D563 |

**87½° Rest Bend**



| Information   | Code |
|---------------|------|
| Double Socket | D571 |

**30° Single Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Spigot | D164 |

**30° Double Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Socket | D564 |

**87½° Settlement Rest Bend**



| Information   | Code |
|---------------|------|
| Double Socket | D570 |

**15° Single Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Spigot | D167 |

**15° Double Socket Bend**



| Information   | Code |
|---------------|------|
| Socket/Socket | D567 |



# 110mm UNDERGROUND PIPE AND FITTINGS

Standard: BS EN 13476-2, BS EN 1401-1    Kitemark: 544332    Material: PVC-U



## 87½° Large Radius Bend



| Information | Code |
|-------------|------|
| Plain End   | D281 |

## 87½° Equal Junction



| Information   | Code |
|---------------|------|
| Double Socket | D190 |

## 87½° Access Bend



| Information   | Code |
|---------------|------|
| Socket/Spigot | D169 |

## 45° Large Radius Bend



| Information | Code |
|-------------|------|
| Plain End   | D283 |

## 45° Equal Junction



| Information   | Code |
|---------------|------|
| Double Socket | D210 |

## Access Pipe



| Information   | Code |
|---------------|------|
| Socket/Spigot | D274 |

## 87½° Large Radius Bend



| Information           | Code |
|-----------------------|------|
| Plain End with Access | D581 |

## 87½° Equal Junction



| Information   | Code |
|---------------|------|
| Triple Socket | D191 |

## Screwed Access Cap



| Information | Code |
|-------------|------|
| Spigot      | D292 |

## 45° Large Radius Bend



| Information           | Code |
|-----------------------|------|
| Plain End with Access | D583 |

## 45° Equal Junction



| Information   | Code |
|---------------|------|
| Triple Socket | D211 |

## Channel Access Pipe



| Information  | Code |
|--------------|------|
| PE - 1 Metre | D870 |



### PVC Oval Rodding Point



#### Information

Spigot

#### Code

D881

### 0-90° Adjustable Bend



#### Information

Double Socket

#### Code

D560

### PVC Oval Rodding Point



#### Information

Socket

#### Code

D882

### 110mm Non-Return Valve



#### Information

Single Flap

#### Code

D550

### PVC Square Rodding Point



#### Information

Spigot

#### Code

D883

### DrainGuard



#### Information

Fits Round/Square Pipe

#### Code

DG1

### PVC Square Rodding Point



#### Information

Socket

#### Code

D884



# 110mm UNIVERSAL TRAPS

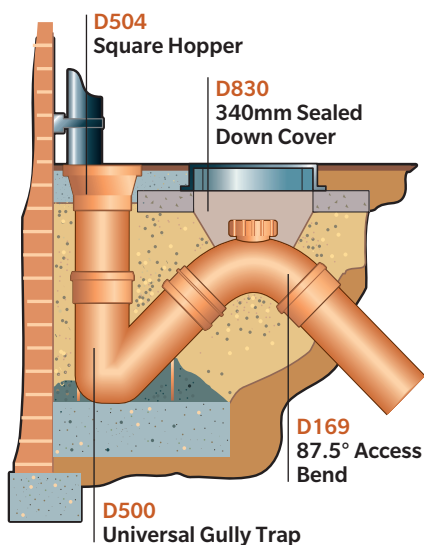
Standard: BS 4660, BS EN 124, BS EN 1401-1 Material: PVC-U



## UNIVERSAL GULLY TRAP INSTALLATION GUIDE

- 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).



### 45° Universal Gully Trap



| Information   | Code |
|---------------|------|
| Socket/Spigot | D500 |

### Low Back 'P' Trap



| Information   | Code |
|---------------|------|
| Socket/Spigot | D501 |

### Square Hopper



| Information             | Code |
|-------------------------|------|
| With Polypropylene Grid | D507 |

### Rectangular Hopper



| Information             | Code |
|-------------------------|------|
| With Polypropylene Grid | D506 |

### Square Grid



| Information             | Code |
|-------------------------|------|
| Made with Polypropylene | D502 |

### Square Blank Cover Grid



| Information             | Code |
|-------------------------|------|
| Made with Polypropylene | D508 |

### Rectangular Blank Cover Grid



| Information             | Code |
|-------------------------|------|
| Made with Polypropylene | D211 |

### Leaf Debris Inspection Gully



| Information     | Code |
|-----------------|------|
| Basket Included | D94  |



# 110mm GULLYS AND HOPPERS

Standard: BS 4660, BS EN 124, BS EN 1401-1    Material: PVC-U



## Bottle Gullies Circular Grid



| Information   | Code |
|---------------|------|
| Single Socket | D510 |

## Square Grid



| Information   | Code |
|---------------|------|
| Single Socket | D515 |

## Rectangular Grid



| Information   | Code |
|---------------|------|
| Single Socket | D520 |

## Back inlet Bottle Gullies Circular Grid



| Information   | Code |
|---------------|------|
| Double Socket | D540 |

## Square Grid



| Information   | Code |
|---------------|------|
| Double Socket | D535 |

## Rectangular Grid



| Information   | Code |
|---------------|------|
| Double Socket | D530 |

## Hoppers Circular



| Information | Code |
|-------------|------|
| With Grid   | D514 |

## Square



| Information | Code |
|-------------|------|
| With Grid   | D518 |

## Rectangular



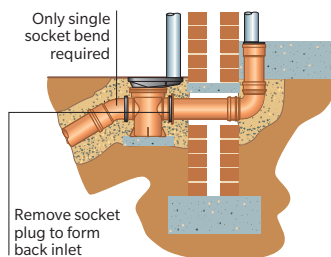
| Information | Code |
|-------------|------|
| With Grid   | D524 |

## Riser

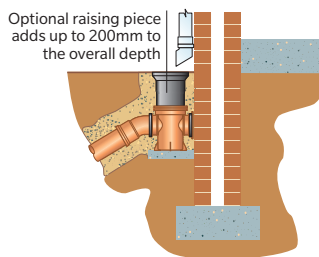


| Size  | Code |
|-------|------|
| 200mm | D505 |

### BOTTLE GULLY WITH RECTANGULAR HOPPER



### BOTTLE GULLY WITH CIRCULAR HOPPER





# 110mm UNDERGROUND ADAPTORS

Standard: BS EN 13476-2, BS EN 1401-1 Material: PVC-U AND RUBBER



## 110mm Waste Adaptor - Use with Boss Adaptor



| Colour                     | Code |
|----------------------------|------|
| <b>B</b> <b>W</b> <b>G</b> | SP95 |

## 110 x 68mm Waste Adaptor



| Colour                     | Code |
|----------------------------|------|
| <b>B</b> <b>W</b> <b>G</b> | SP96 |

## 32/40/50mm Waste Adaptor



| Information | Code |
|-------------|------|
| Rubber      | D95  |

## 65mm Square/68mm Round Adaptor



| Information | Code |
|-------------|------|
| Rubber      | D96  |

## 80 x 100mm Adaptor



| Information | Code |
|-------------|------|
| Rubber      | D97  |

## 160 x 110mm Level Invert Adaptor



| Information   | Code |
|---------------|------|
| Socket/Spigot | D99  |

## Supersleve Clay DS Adaptor



| Information   | Code |
|---------------|------|
| Double Socket | D100 |

## Hepsleve Clay DS Adaptor



| Information   | Code |
|---------------|------|
| Double Socket | D101 |



65mm Square/68mm Round Adaptor (D96) Installation.







# 160mm UNDERGROUND PIPE AND FITTINGS

Standard: BS EN 13476-2, BS EN 1401-1    Material: PVC-U



| Plain Ended Pipe  |             | Pipe Coupling   |             | 87½° Equal Junctions  |             |
|---|-------------|---|-------------|---|-------------|
|    |             |      |             |  |             |
| <b>Size</b>   | <b>Code</b> | <b>Information</b>  | <b>Code</b> | <b>Information</b>  | <b>Code</b> |
| 6m  | 6D046       | Double Socket   | 6D105       | Double Socket   | 6D190       |
| Single Socket Pipe  |             | Slip Coupling   |             | 45° Equal Junctions   |             |
|    |             |      |             |  |             |
| <b>Size</b>   | <b>Code</b> | <b>Information</b>  | <b>Code</b> | <b>Information</b>  | <b>Code</b> |
| 3m  | 6D143       | Double Socket   | 6D105S      | Double Socket   | 6D210       |
| 3m  | 6D146       |   |             |   |             |
| 87½° 160/110mm Unequal Junction   |             | 87½° Equal Junctions  |             |   |             |
|  |             |  |             |   |             |
| <b>Information</b>  | <b>Code</b> | <b>Information</b>  | <b>Code</b> |   |             |
| Double Socket   | 6D198       | Triple Socket   | 6D191       |   |             |
| 45° 160/110mm Unequal Junction  |             | 45° Equal Junctions   |             |   |             |
|  |             |  |             |   |             |
| <b>Information</b>  | <b>Code</b> | <b>Information</b>  | <b>Code</b> |   |             |
| Double Socket   | 6D218       | Triple Socket   | 6D211       |   |             |



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

### 87½° Single Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Spigot | 6D161 |

### 87½° Double Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Socket | 6D561 |

### 160mm Non-Return Valve



| Information | Code  |
|-------------|-------|
| Single Flap | 6D550 |

### 45° Single Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Spigot | 6D163 |

### 45° Double Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Socket | 6D563 |

### 160 x 110mm Level Invert Adaptor



| Information   | Code |
|---------------|------|
| Socket/Spigot | D99  |

### 30° Single Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Spigot | 6D164 |

### 30° Double Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Socket | 6D564 |

### Flexi Adaptor



| Information     | Code  |
|-----------------|-------|
| Cast iron/160mm | 6D102 |

### 15° Single Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Spigot | 6D167 |

### 15° Double Socket Bend



| Information   | Code  |
|---------------|-------|
| Socket/Socket | 6D567 |

### Clay Adaptor



| Information                          | Code  |
|--------------------------------------|-------|
| A: 160mm - 180mm<br>B: 180mm - 200mm | 6D104 |



# LARGE INSPECTION CHAMBERS (LIC) AND FITTINGS

**Standard:** BS EN 1401-1, BS EN 13598-1&2, BS EN 13476-2, BS EN 124 **Material:** PVC-U/Polypropylene



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.

Should the connection of D940/D941 cover and frame be required directly to the base D900/D910, then riser D916 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 for general guidance 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.



## 270mm Deep Chamber Base

### 2x90° 160mm Inlets/2x45° 110mm Inlets



| Information     | Code  |
|-----------------|-------|
| 160/110mm Inlet | 6D900 |

## 270mm Deep Chamber Base

### 5x110mm Flexible Inlets



| Information | Code |
|-------------|------|
| 110mm Inlet | D900 |

## 270mm Deep Chamber Base

### 5x110mm Fixed Inlets



| Information | Code |
|-------------|------|
| 110mm Inlet | D910 |



|                                 |  |     |     |     |      |  |      |      |      |      |      |      |      |
|---------------------------------|--|-----|-----|-----|------|--|------|------|------|------|------|------|------|
| <b>LIC INVERT DEPTH (MM)</b>    | 270  | 505 | 740 | 975 | 1210 | 1445   | 1680 | 1915 | 2150 | 2385 | 2620 | 2855 | 3090 |
| <b>Number of Riser Required</b> | BASE ONLY                                      | 1   | 2   | 3   | 4    | 5  | 6    | 7    | 8    | 9    | 10   | 11   | 12   |
| <b>Cover Required</b>           | (D940) 450mm opening up to a maximum of 1200mm |     |     |     |      | (D941) 350mm opening up to a maximum of 3000mm |      |      |      |      |      |      |      |

#### 235mm Extension Riser



| Information        | Code |
|--------------------|------|
| Can be cut to size | D915 |

#### 450mm Plast Cover and Frame



| Information       | Code |
|-------------------|------|
| Restricted Access | D931 |

#### 450mm Plastic Cover and Square Frame



| Information | Code |
|-------------|------|
| A15 rating  | D940 |

#### 235mm Extension Riser and Seal



| Information        | Code |
|--------------------|------|
| Can be cut to size | D916 |

#### Cast Iron Cover and Plastic Frame



| Information | Code |
|-------------|------|
| A15 rating  | D924 |

#### 450mm Plastic Cover and Square Frame



| Information       | Code |
|-------------------|------|
| Restricted Access | D941 |

#### Riser Sealing Ring



| Information         | Code |
|---------------------|------|
| Use with each riser | D935 |

#### 450mm Block Paving Cover



| Information  | Code |
|--------------|------|
| Square/Round | D933 |

#### 450mm Plast Cover and Frame



| Information | Code |
|-------------|------|
| A15 rating  | D930 |

#### 450mm Ductile Iron Cover/Frame



| Information | Code |
|-------------|------|
| B125 rating | D934 |



# MINI ACCESS CHAMBERS (MAC) AND FITTINGS

**Standard:** BS EN 1401-1, BS EN 124, BS EN 13598 -1 & 2 **Material:** PVC-U/Polypropylene



FloPlast innovative design for the Mini Access Chamber (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 100mm and 200mm chamber risers, 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 Plastic Inspection Chamber for drainage.





| MINI ACCESS CHAMBER DEPTH         |     |          |
|-----------------------------------|-----|----------|
| Product                           | 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      |

#### 270mm 5 x Flexible Inlet Chamber Base



| Information | Code |
|-------------|------|
| 110mm Inlet | D800 |

#### 100mm Chamber Riser



| Information          | Code |
|----------------------|------|
| Integral Rubber Ring | D820 |

#### 300mm Block Paving Cover



| Information  | Code |
|--------------|------|
| Square/Round | D932 |

#### 270mm 3 x Flexible Inlet Chamber Base



| Information | Code |
|-------------|------|
| 110mm Inlet | D801 |

#### 200mm Chamber Riser



| Information          | Code |
|----------------------|------|
| Integral Rubber Ring | D822 |

#### 215mm 5 x Fixed Inlet Level Invert Chamber



| Information        | Code |
|--------------------|------|
| With Blanking Caps | D814 |

#### 270mm 3 x Flexible Inlet Chamber Base



| Information | Code |
|-------------|------|
| 110mm Inlet | D802 |

#### Square 340mm Cover and Frame



| Information | Code |
|-------------|------|
| A15 rating  | D830 |

#### Level Invert Chamber Riser



| Information   | Code |
|---------------|------|
| Use with D814 | D824 |

#### 270mm 3 x Fixed Inlet Deep Chamber Base



| Information | Code |
|-------------|------|
| 110mm Inlet | D810 |

#### Round 300mm Cover and Frame



| Information | Code |
|-------------|------|
| A15 rating  | D831 |

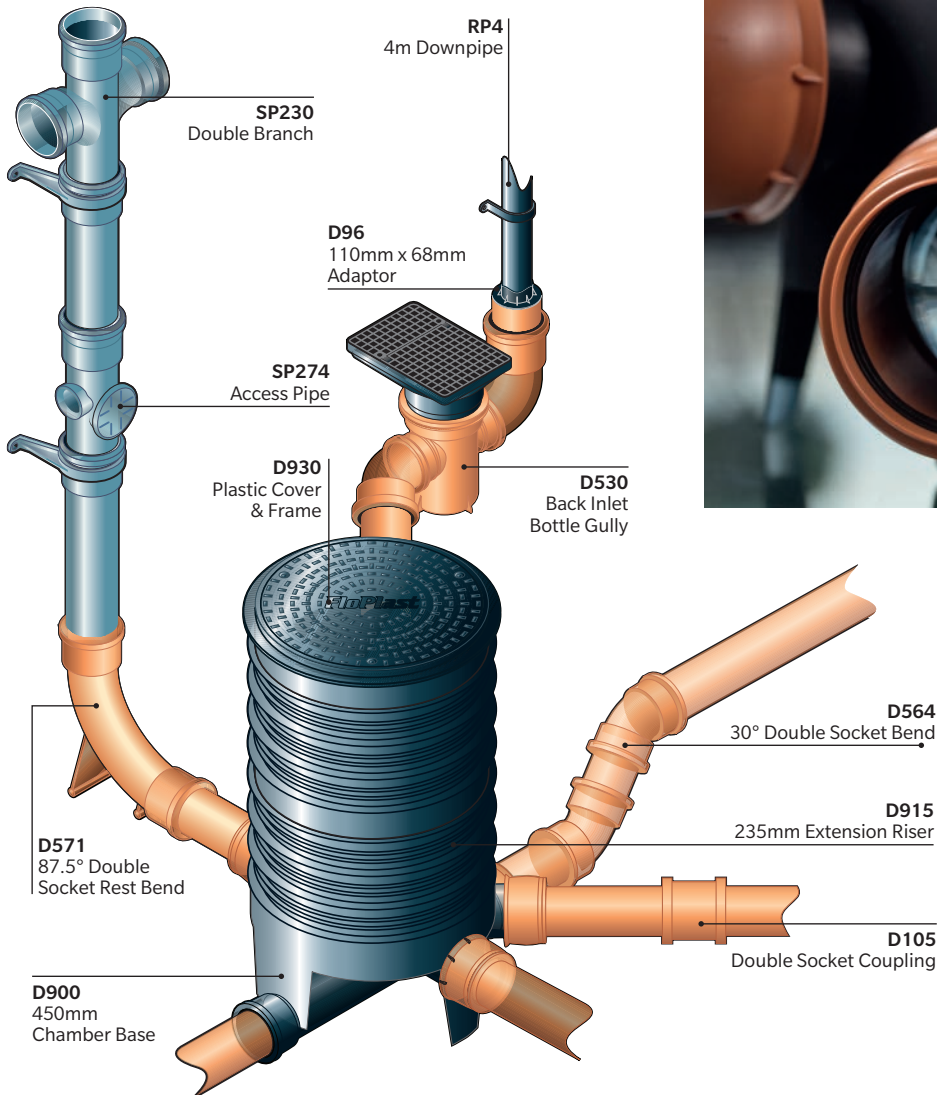
#### Level Invert Chamber Lid



| Information            | Code |
|------------------------|------|
| Use with D814 and D824 | D834 |

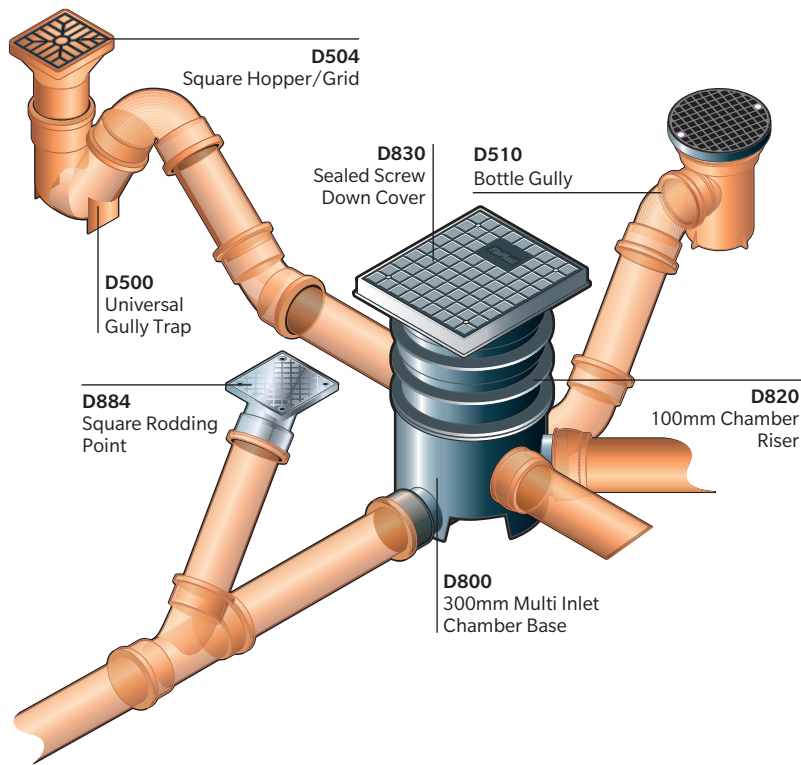


# UNDERGROUND DRAINAGE LARGE INSPECTION CHAMBER (LIC) AND 110mm PIPE AND FITTINGS





# UNDERGROUND DRAINAGE MINI ACCESS CHAMBER (MAC) AND 110mm PIPE AND FITTINGS



## BACK INLET BOTTLE GULLY (BIG)

- Screw down, hinged rectangular heavy duty hopper.
- Heavy duty circular (D540) and Square (D518) hopper available.
- 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.





# INSTALLATION GUIDE PIPE AND FITTINGS

## 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 BS EN 1610, 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 and BS EN 1610. Where drainage appears inside buildings BS EN 12056 should also be consulted.

## JOINTING

### 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.



# INSTALLATION GUIDE MINI ACCESS CHAMBER

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.

# INSTALLATION GUIDE LARGE INSPECTION CHAMBER

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.

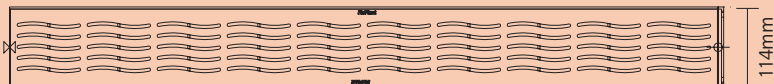
Side branches of the chamber should not be used to change the direction of the main flow, as a self-cleansing flow through the chamber cannot be guaranteed.

Should the connection of D930/D931/D940/D941 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.



# FLODRAIN 110mm DOMESTIC CHANNEL DRAINAGE

**Standard:** BS EN 1433 Attestation Level 3    **Material:** Polypropylene/Galvanised Steel



## 1m Channel Drainage - Galvanised Grate



### Information



### Code

D701

## 1m Channel Drainage - Plastic Grate



### Information



### Code

D700

## Drain Corner - Galvanised Grate



### Information



### Code

D720

## Drain Corner - Plastic Grate



### Information



### Code

D710

## Sump Trap with Basket - Galvanised Grate



### Information



### Code

D733

## Sump Trap with Basket - Plastic Grate



### Information



### Code

D732

## Garage Pack - Galvanised Grate



### Information

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

### Code

D751

## Garage Pack - Plastic Grate



### Information

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

### Code

D750



- 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.

### End Cap



| Information | Code |
|-------------|------|
| CE          | D711 |

### Corner Spacer



| Information | Code |
|-------------|------|
| CE          | D715 |

### End Outlet



| Information | Code |
|-------------|------|
| CE          | D712 |

### Balloon Guard



| Information | Code |
|-------------|------|
| CE          | D714 |

### 1m Threshold Channel Drain

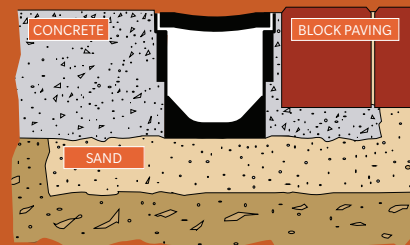


| Information | Code |
|-------------|------|
| CE          | D730 |

## DOMESTIC CHANNEL DRAINAGE

### 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.





# GROUND GUARD

Lightweight ground reinforcement system suitable for pedestrian areas and light vehicle access.

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.

## Ground Guard Tiles



### Information

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

### Code

G40

### SUITABLE FOR:

- Additional/overflow grass car parks.
- Walkways and disabled access routes.
- Golf buggy paths.
- Driveways and residential lawn parking.
- Tested in excess of 200 tonnes per square metre spread load.

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



# LAND DRAINAGE

**Standard:** BS 4962, Licence No: KM557607

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).

## Land Drainage 25m Coil



| Nominal Size O.D | Code   |
|------------------|--------|
| 80mm x 25m       | L8025  |
| 100mm x 25m      | L10025 |

## Coupling



| Nominal Size O.D | Code  |
|------------------|-------|
| 80mm             | LC80  |
| 100mm            | LC100 |

## 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.

## 110mm Perforated Pipe



| Size | Code  |
|------|-------|
| 6m   | D046P |

## Multi-Junction Branch



| Nominal Size O.D | Code  |
|------------------|-------|
| 60/80/100mm      | LJ100 |



# DRAINAGE CRATE

The DC20 Drainage Crate is designed to control stormwater by capturing and storing excess surface runoff.

It slowly releases the collected water back into the surrounding soil or drainage infrastructure, helping to prevent flooding and water logging.

Ideal for use in landscaped environments, the system supports both soakaway and attenuation functions.

Each unit is made using durable, injection-moulded components for reliable performance and structural integrity in domestic installations.

## Drainage Crate



### Size

1000 x 500 x 400mm

### Code

DC20

### SYSTEM FEATURES:

- Engineered with a cellular design that balances strength and weight.
- Interlocking units allow flexible configuration.
- Secured in place with locking clips and connectors for long-term structural integrity.

### MATERIAL COMPOSITION

Manufactured using recycled polypropylene (PP).

### QUALITY ASSURANCE

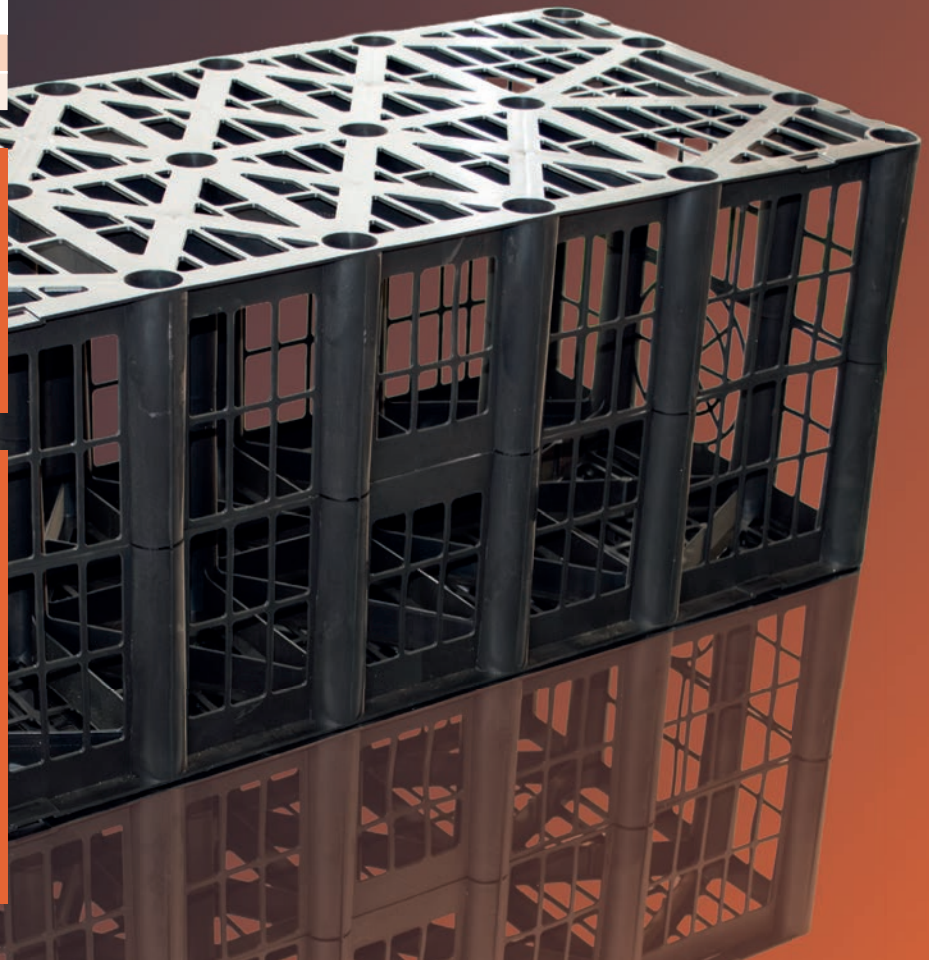
Manufacturing and inspection processes are certified to BS EN ISO 9001.

### PACKAGING DETAILS

Each pallet holds 12 DC20 Crates (2.4m<sup>3</sup>). Full pallet includes all clips and connectors.

### INSTALLATION

Units should not be used where groundwater is present. 0.5m cover is required where a ride-on mower may be used.





# LUBRICANT AND SOLVENT CEMENT

FloPlast offers a specialised range of solvent cements and lubricants designed for the secure installation and maintenance of plastic plumbing systems, particularly for soil, waste, and underground drainage products.

## SOLVENT CEMENT

- Forms a strong and permanent joint.
- Provides leak-free seals when used correctly.
- Fast bonding and cure times.
- Suitable for PVC and ABS plastics.
- Material safety data sheets available on website.

## SILICONE LUBRICANT

- Resistant to water and moisture.
- Safe for use on most plastics.
- Operates across a wide temperature range.
- Aids the installation of plumbing systems.
- Material safety data sheets available on website.

| NUMBER OF JOINTS<br>ACHIEVABLE TO LUBRICATE<br>(for guidance only) |      |      |       |
|--|------|------|-------|
| 100G SILICONE GREASE   |      |      |       |
| 32mm   | 40mm | 50mm | 110mm |
| 160  | 120  | 100  | 60    |
| 800G LUBRICANT GEL   |      |      |       |
| 32mm   | 40mm | 50mm | 110mm |
| 1200   | 950  | 800  | 450   |
| 200ML SILICONE SPRAY   |      |      |       |
| 32mm   | 40mm | 50mm | 110mm |
| 600  | 420  | 400  | 225   |

| NUMBER OF JOINTS<br>ACHIEVABLE TO CEMENT<br>(for guidance only) |      |      |       |
|---|------|------|-------|
| 125ML SOLVENT CEMENT  |      |      |       |
| 32mm  | 40mm | 50mm | 110mm |
| 27  | 27   | 27   | 7     |
| 250ML SOLVENT CEMENT  |      |      |       |
| 32mm  | 40mm | 50mm | 110mm |
| 55  | 55   | 55   | 15    |

| 100g Silicone Grease  |       |
|---|-------|
|  |       |
| Information   | Code  |
| CE  | SG100 |

| 800g Lubricant Gel  |       |
|---|-------|
|  |       |
| Information   | Code  |
| CE  | SG800 |

| Silicone Lubricant Spray  |       |
|---|-------|
|  |       |
| Size  | Code  |
| 200ml   | SL200 |

| 125ml Solvent Cement  |       |
|---|-------|
|  |       |
| Information   | Code  |
| CE  | SC125 |

| 250ml Solvent Cement  |       |
|---|-------|
|  |       |
| Information   | Code  |
| CE  | SC250 |



Roofline, Window and Cladding Systems



Rainwater Systems



Soil & Waste Systems



Underground Drainage Systems



MDPE Systems



Hot & Cold Plumbing Systems

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