

# Terrain Underground



Product Guide

# Terrain Underground

Using the latest plastics manufacturing technology to satisfy the requirements of today's installers, the Terrain underground range offers both rigid and foam core pipe and a comprehensive range of fittings to suit all applications. Terrain underground products represent the benchmark for quality, supported with outstanding service levels. Our comprehensive range of underground drainage products are suitable for commercial, industrial, housing and public sector developments.

- Industry leading
- Simple to install
- Flexible, to accommodate normal ground movement
- Adaptable, to connect to existing drainage systems
- Supported through extensive technical experience on all aspects of design and installation
- Fully accredited product system

## Solid wall pipes and fittings

Available in 82, 110 and 160mm diameters.

110 and 160mm comply with BS EN 1401 (BS 4660).

## Foamcore pipe

Manufactured using the latest tri-extrusion techniques to produce a three layer pipe that is 25% lighter than standard PVC-u pipe.

Available in 110 and 160mm diameters. Carries BBA certificate 95/3086.

As you would expect from a market leader our products come with all relevant standards including:

## Manufacturing Standards

EN 1401:1998 Underground Drainage

EN 7158:2001 Plastic Inspection Chambers for Drains and Sewers

## Quality Management Systems Standards

EN ISO 9001:2008 Management System

EN ISO14001:2004 Management System

BS OHSAS 18001:2007 Management System

PASS 99:2006 Integrated Management Registration



**Larger pipework and fittings for 315mm diameter are available on request**

### Sustainable Materials

Plastics are among the most researched materials in the world and rapid technological and manufacturing developments made in recent years have allowed for continuous innovation.

Polypipe Terrain pioneered the development of PVC material for the manufacturing of drainage pipes and fittings; we remain at the forefront of the industry across the globe and are proud to be pioneering the industry with the development of our LEAD-FREE system.

Utilising a lead-free material composition contributes significantly to an environmentally friendly manufacturing process and gives a finished product that is fully recyclable in accordance with British Standards.

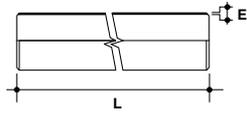
For further information, please refer to [www.polypipe.com](http://www.polypipe.com)

# Contents

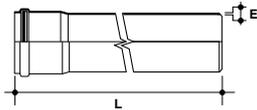
## Terrain Underground

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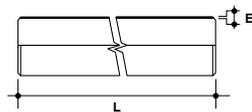
## Terrain pipes & fittings



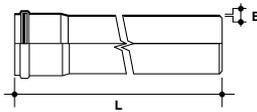
	Size (mm)	L	E (min)	Code
<b>SOLID WALL PIPE PLAIN ENDED</b>				
	82	3m	2.25	3DP3
▽	110	3m	3.2	4DP3
▽	160	3m	4.1	6DP3
	82	5.8m	2.25	3DP58
▽	110	5.8m	3.2	4DP58
▽	160	5.8m	4.1	6DP58



	Size (mm)	L	E (min)	Code
<b>SOLID WALL PIPE SINGLE SOCKET</b>				
▽	110	3m	3.2	4DP3S
▽	110	6m	3.2	4DP6S
▽	160	6m	4.1	6DP6S



	Size (mm)	L	E (min)	Code
<b>FOAMCORE PIPE PLAIN ENDED</b>				
	110	3m	3.2	4EUP3
	110	5.8m	3.2	4EUP58
	160	5.8m	4.1	6EUP58



	Size (mm)	L	E (min)	Code
<b>FOAMCORE PIPE SINGLE SOCKET</b>				
	110	3m	3.2	4EUP3S
	110	6m	3.2	4EUP6S
	160	3m	4.1	6EUP3S
	160	6m	4.1	6EUP6S

# Terrain Drainage System

## Terrain pipes & fittings D Range

Size (mm)	L	Z	Code
<b>COUPLER DOUBLE SOCKET - with central stop</b>			
82	136	3.5	3D20D
110	122	2	4D20D
160	154	4	6D20D

Size (mm)	L	Code
<b>SLIP COUPLER - for inserting new fittings into existing pipework (e.g. refurbishment or repair)</b>		
110	122	4D20DSC
160	154	6D20DSC

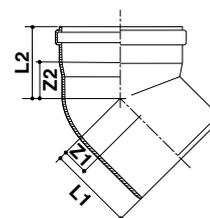
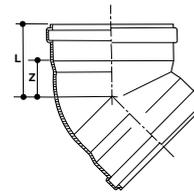
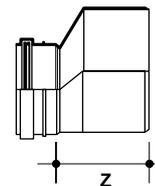
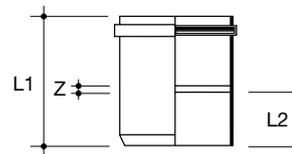
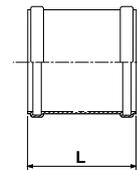
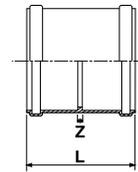
Size (mm)	L1	L2	L3	Code
<b>PIPE END SOCKET</b>				
110	121	48	3	4D69
160	167	68	3	6D69

Size (mm)	Z	Code
<b>LEVEL INVERT TAPER - larger end spigot and smaller end socket</b>		
110/82	104	43DT
160/110	143	64DT

Material: PVC-u

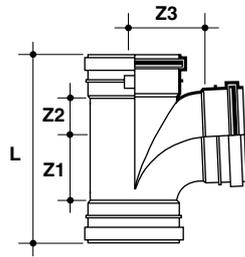
Size (mm)	Angle°	L	Z	Code
<b>SHORT RADIUS BEND DOUBLE SOCKET - to change pipe direction: 87½°, 45°, 30° &amp; 15° as standard</b>				
82	87½	142	70	3D23D
82	45	97	25	3D25D
110	87½	120	70	4D23D
110	45	87	37	4D25D
110	30	83	27	4D27D
110	15	76	20	4D29D
160	87½	202	124	6D23D
160	45	122	49	6D25D
160	30	114	40	6D27D
160	15	101	28	6D29D

Size (mm)	Angle°	L1	L2	Z1	Z2	Code
<b>SHORT RADIUS BEND SINGLE SOCKET - to change pipe direction: 87½°, 45°, 30° &amp; 15° as standard</b>						
110	87½	117	119	59	69	4D23
110	45	85	89	27	39	4D25
110	30	78	86	17	29	4D27
110	15	71	79	9	22	4D29
160	87½	164	166	84	100	6D23
160	45	117	116	37	50	6D25
160	30	107	112	25	40	6D27
160	15	96	100	14	28	6D29

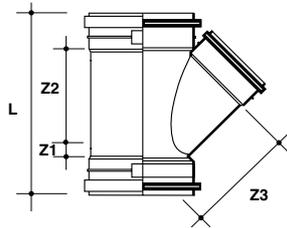


# Pipes & Fittings

## Terrain pipes & fittings D Range

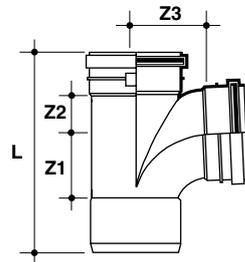


	Size (mm)	Angle°	L	Z1	Z2	Z3	Code
<b>SINGLE EQUAL JUNCTION</b> - to join 82mm main pipe at an angle: 45° as standard							
	110	87½	268	87	57	87	<b>4D30D</b>
	160	87½	338	95	99	99	<b>6D30D</b>
	82	45	265	19	108	102	<b>3D33D</b>
	110	45	294	37	137	137	<b>4D33D</b>
	160	45	399	52	203	203	<b>6D33D</b>



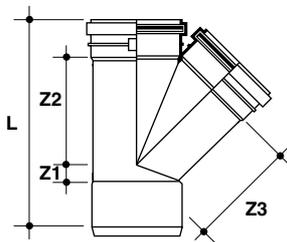
	Size (mm)	Angle°	L	Z1	Z2	Z3	Code
<b>SINGLE UNEQUAL JUNCTION (all sockets)</b> - to join 110mm branch pipe to 160mm main pipe at an angle							
	160/110	45	278	27	143	143	<b>64D33D</b>
	160/110	45	397	38	205	205	<b>64D30D</b>

45° and 87½° as standard.



	Size (mm)	Angle°	L	Z1	Z2	Z3	Code
<b>SINGLE EQUAL JUNCTION SPIGOT OUTLET</b> - to join 110 or 160mm branch to 110 or 160mm main pipe at an angle							
	110	87½	239	59	69	69	<b>4D30</b>
	110	45	278	27	143	143	<b>4D33</b>
	160	45	397	38	205	205	<b>6D33</b>

(110mm) 87½° and 45° as standard. (160mm) 45° as standard.



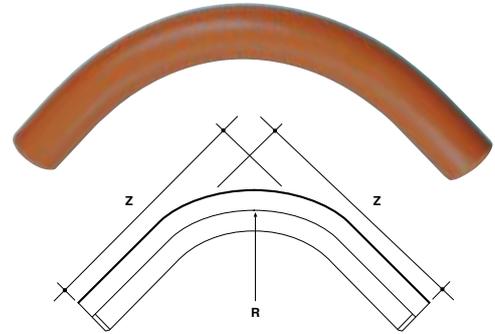
	Size (mm)	Angle°	L	Z1	Z2	Z3	Code
<b>SPIGOT OUTLET</b> - to join 110mm branch pipe to 110 or 160mm main pipe at an angle							
	160/110	45	326	2	168	176	<b>64D33</b>

45° as standard.

# Terrain Drainage System

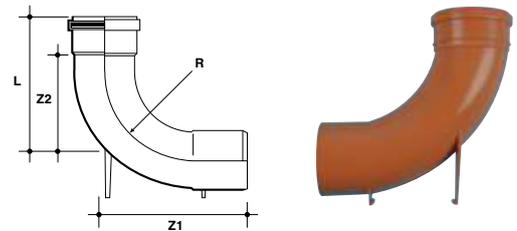
## Terrain pipes & fittings

Size (mm)	Angle°	R	Z	Code
<b>LONG RADIUS BENDS (plain ended)</b> - 90° and 45° as standard				
110	90	455	539	<b>4D22</b>
 110	45	455	368	<b>4D28</b>



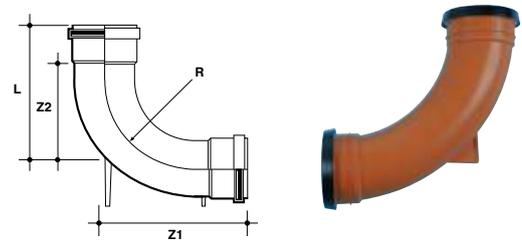
Size (mm)	Angle°	L	R	Z1	Z2	Code
<b>REST BEND SINGLE SOCKET</b> - to change 110mm at base of soil stack: 87½° as standard						
110	87½	230	200	245	170	<b>4D21</b>

Satisfies recommendations of BS 5772: 1994.



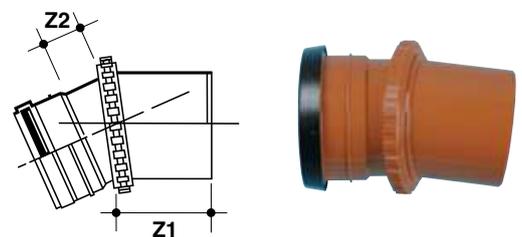
Size (mm)	Angle°	L	R	Z1	Z2	Code
<b>REST BEND DOUBLE SOCKET</b> - to change 110mm at base of soil stack: 87½° as standard						
110	87½	205	200	245	170	<b>4D21D</b>

Satisfies recommendations of BS 5772: 1994.



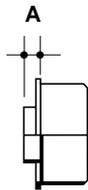
Size (mm)	Angle°	Z1	Z2	Code
<b>VARIABLE BEND SINGLE SOCKET</b> - to change 110mm pipe direction by 0-25°				
 110	0-25	86	45	<b>4DV40</b>

Z dimensions are constant whichever angle is selected.  
Any non-standard angle can be achieved if used in conjunction with a standard fitting.



# Pipes & Fittings

## Terrain pipes & fittings

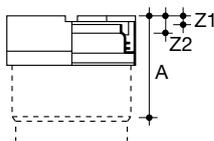


Size (mm)	A	Code
<b>SOCKET PLUG</b> - to blank off any ring seal socket		
110	18	<b>4D68</b>
160	16	<b>4D68</b>

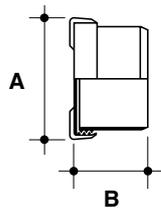


Size (mm)	A	Code
<b>TEMPORARY SITE CAP</b> - for temporary capping of system		
110	30	<b>4D65</b>

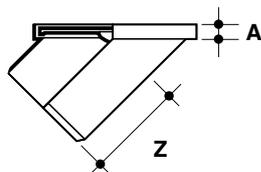
Versions for external and internal use.



Size (mm)	A	Z1	Z2	Code
<b>ACCESS CAP</b> - Solvent Skt				
83	83	16	32	<b>3D63</b>
110	97	21	46	<b>4D63</b>
160	122	22	42	<b>6D63</b>



Size (mm)	A	B	Code
<b>ACCESS CAP</b> - to allow full bore access to 82, 110 or 160mm pipework for inspection or rodding			
82	101	85	<b>3D64</b>
110	118	103	<b>4D64</b>
160	186	107	<b>6D64</b>



Size (mm)	A	Z	Code
<b>RODDING EYE</b> - elliptical rodding eye with 110mm pipe size spigot			
110	13	95	<b>4DRE</b>

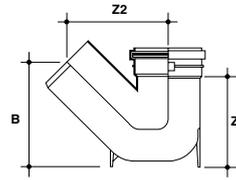
Material: Aluminium. Access aperture size: 118 x 90mm.

# Terrain Drainage System

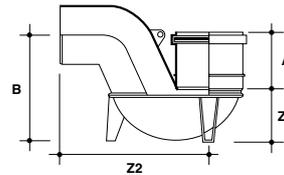
## Terrain gullies & hoppers

Size (mm)	A	B	Z1	Z2	Code
<b>GULLY TRAP</b> - to obtain 'P' trap, add 45° bend					
110	50	190	120	210	<b>4DG90</b>

Material: Polypropylene

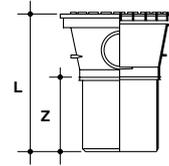


Size (mm)	A	B	Z1	Z2	Code
<b>'P' TRAP</b> - to obtain 'Q' or 'S' trap, add 45° or 87½° bend					
110	104	193	92	265	<b>4DG91</b>



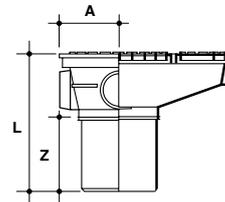
Size (mm)	L	Z	Code
<b>SQUARE HOPPER HEAD</b> - Spigot outlet may be cut off to reveal socket which can accept solvent-welded pipe as extended spigot			
110	203	105	<b>4DG92</b>

Material: PVC-u and Polypropylene. Terracotta body with black grid.



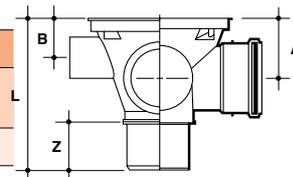
Size (mm)	A	L	Z	Code
<b>RECTANGULAR HOPPER HEAD</b> - Back inlet plate incorporates two easily removable discs to create apertures for insertion of 40mm waste pipes				
110	85	203	105	<b>4DG93</b>

Material: PVC-u and Polypropylene. Terracotta body with black grid.



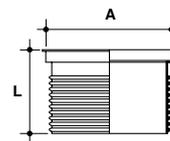
Size (mm)	A	B	L	Z	Code
<b>CIRCULAR GULLY</b> - Incorporates plugged horizontal pipe entries: 2 x 110mm spigots, 1 x 110mm ring seal socket and 1 x 68mm rainwater pipe socket					
110	104	193	92	265	<b>4DG80</b>

Material: PVC-u. Spigot outlet may be cut off to reveal socket which can accept solvent-welded pipe as extended spigot.



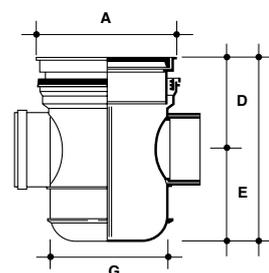
A	L	Code
<b>EXTENSION PIECE</b> - to extend upper aperture of 4DG80 Circular Gully to surface level or to lower horizontal pipe entries beneath surface level		
213	150	<b>4DG81</b>

Requires mastic sealant for forming airtight/watertight seal.



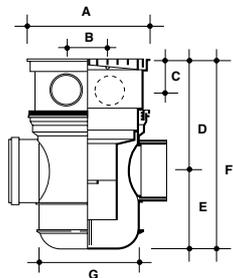
Size (mm)	A	D	E	F	G	Code
<b>BOTTLE GULLY WITH ROUND COVER</b> - removable dip tube provides 50mm deep trap						
110	213	150	154	304	190	<b>4DG97</b>

Material: PVC-u and Polypropylene. Incorporates 110mm back inlet connection. Terracotta body with black cover.



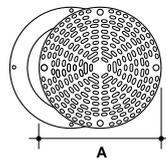
# Gullies & Hoppers

## Terrain gullies & hoppers

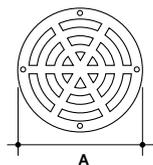


Size (mm)	A	B	C	D	E	F	G	Code
<b>BOTTLE GULLY WITH SQUARE COVER</b> - removable dip tube provides 50mm deep trap								
110	232	76	60	212	154	366	190	<b>4DG89</b>

Material: PVC-u and Polypropylene. Incorporates 2 x waste back inlet connections, can also accept up to 6 different pipes either direct or via adaptors. Terracotta body with black grid.

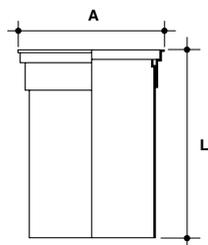


A	Code
<b>SEALED COVER</b> - to cap 4DG80 Circular Gully or 4DG81 extension	
211	<b>4DG82</b>



A	Code
<b>CIRCULAR GRATING</b> - to provide an open grating for surface water drainage for 4DG80 Circular Gully or 4DG81 Extension Piece	
211	<b>4DG83</b>

Also: spare grating for 4DG97 Bottle Gully.



Size (mm)	A	L	Code
<b>RAISING PIECE</b> - to extend upper aperture of 4DG97 Bottle Gully to surface level or to lower horizontal pipe entries beneath surface level			
200	213	470	<b>4DG96</b>

Material: PVC-u and Polypropylene. Terracotta body with black grid.



Depth (mm)	Width (mm)	Height (mm)	Code
<b>SQUARE HOPPER HEAD</b> - spare grid for 4DG92 Hopper Head			
13	155	155	<b>4DG92G</b>

Material: Polypropylene.



Width (mm)	Height (mm)	Code
<b>SQUARE SEALED COVER</b> - converts 4DG92 Square Hopper Head from open grid to sealed cover		
155	155	<b>4DG92GS</b>

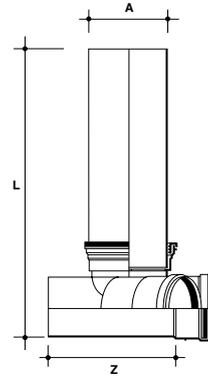
Material: Polypropylene.

# Terrain Drainage System

## Terrain inspection chambers

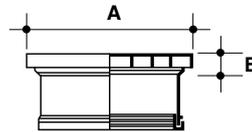
Size (mm)	A	L	Z	Code
<b>SHALLOW INSPECTION CHAMBER</b> - to allow inspection of drainage system				
110	200	586	261	<b>4DI600</b>

Supplied with 2 plugs for unused entries 200mm socket has angular tolerance of  $\pm 7^\circ$  allowing up to  $14^\circ$  adjustment to accommodate pipe variation and ground fall.  
9163.4 Access Door may be fitted to the lower opening to achieve double seal.  
Access aperture size: 162 x 100mm.



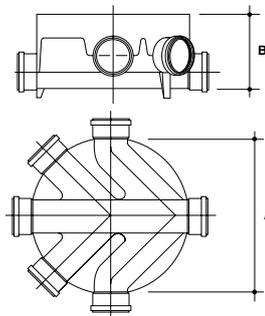
Size (mm)	A	B	Code
<b>SEALED COVER AND FRAME</b> - to cap 4DI600 Shallow Inspection Chamber			
110	211	43	<b>4DIFC1</b>

Ring seal joint to shaft.



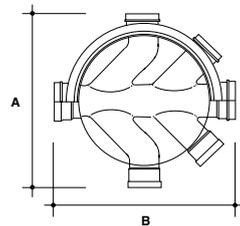
Size (mm)	A	B	Code
<b>INSPECTION CHAMBER BASE (470mm diameter)</b> - to allow inspection of drainage system, incorporating 110mm main channel and 4 x 110mm branch inlets			
110	470	240	<b>4DI240B</b>

Material: Polypropylene. Supplied with 4 x blanking plugs.



Size (mm)	A	B	C	Code
<b>UNEQUAL INSPECTION CHAMBER BASE (475mm diameter)</b> - to allow inspection of drainage system, incorporating 160mm main channel, 2 x 160mm and 2 x 110mm branch inlets				
160/110	610	610	250	<b>64DI240B</b>

Material: Polyethylene. Supplied with 4 x blanking plugs.



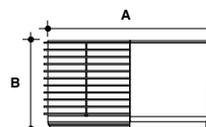
Diameter	Code
<b>SEAL RING</b>	
470	<b>4DI235S</b>



A	B	Code
<b>RAISING PIECE</b> - to extend height of Marscar Access Bowl (4DMB) or Inspection Chamber Base (4DI240B) or Unequal Inspection Chamber Base (64DI240B) to surface level		
470	240	<b>4DI235R</b>

Material: Polypropylene.

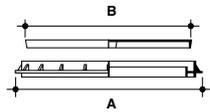
Please Note: Purchased as individual items according to final installation depth requirements.



**Note:** When using the 64DI240B base unit with raising pieces, the seal ring on the first raising piece (4DI235R) must be replaced with a 4DI235S.

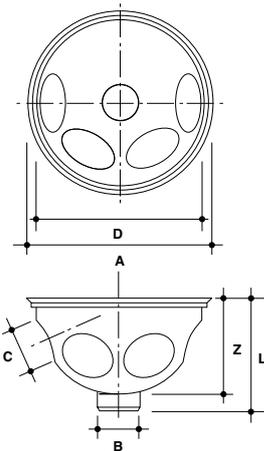
# Terrain Adaptors

## Terrain inspection chambers



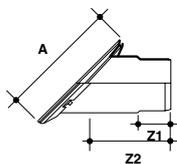
	A	B	Code
<b>COVER AND FRAME</b> - BS EN 124: 1994 - Group 1, Class A15 (formerly BS497: 1976 Class C+)			
	579	454	<b>4DIFC4</b>

Material: Polypropylene cover and frame. For domestic drive-ways accessible to vehicles up to one tonne maximum wheel load.



Size (mm)	A	B	C	D	L	Z	Code
<b>MARSCAR ACCESS BOWL</b> - Unique design access chamber enabling up to 4 inlet connections from shallow drains							
	110	213	150	154	304	190	<b>4DMB</b>

Material: UPVC. Single outlet at centre of base of bowl enables connection to underlying drain run up to 10 metres deep without need for manholes. Bowl shape and inlet angles create self-cleaning swirl action.



Size (mm)	A	Z1	Z2	Code
<b>PRE-CUT INLET HOLE FOR CONNECTION OF 110MM PIPE</b> - 2-part component: connector with seal and locking cap				
	110	180	90	<b>4DM1</b>

Material: Polypropylene



Size (ml)	Code
<b>TERRAIN ACCESSORIES - CLEANING FLUID</b> - for cleaning PVC-u pipe and fittings before applying Liquid Weld	
125	<b>9101.125</b>
250	<b>9101.250</b>

Material: Acetone. Screw top cans.



Size (ml)	Code
<b>TERRAIN ACCESSORIES - LUBRICANT</b> - for lubricating seal rings on expansion fittings	
250 Tub (Silicone)	<b>9136.250</b>
500 Tub (Soluble)	<b>9136.500</b>

Material: Silicone grease or Soluble lubricant.

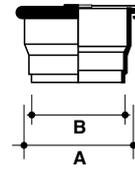


Size (ml)	Code
<b>TERRAIN ACCESSORIES - LIQUID WELD</b> - for solvent jointing of PVC-u pipes and fittings cap, incorporates integral brush	
125 Tube	<b>9100125</b>
250 Tub	<b>9100.250</b>
500 Tub	<b>9100.500</b>

# Terrain Drainage System

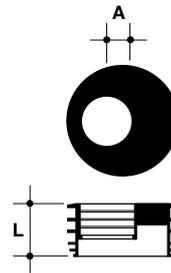
## Terrain adaptors

Size (mm)	A	B	Code
<b>UNIVERSAL RAINWATER ADAPTOR</b> - for connecting round and square PVC-u rainwater downpipe (up to 68mm) to underground drainpipe			
110	110	102	4D76



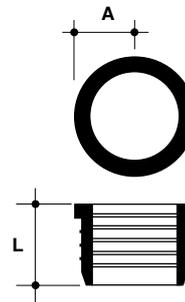
Size (mm)	A	L	Code
<b>UNIVERSAL RAINWATER ADAPTOR</b> - for connecting round and square PVC-u rainwater downpipe (up to 68mm) to underground drainpipe			
110	8	40	4DW200

Material: EPDM



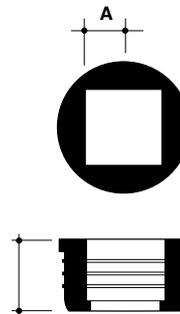
Size (mm)	A	L	Code
<b>ADAPTOR TO ABOVE GROUND DRAIN</b> - for connecting 68mm downpipes and 82mm underground drain			
82/68	41	54	3DW25
110/68	56	54	4DW25
110/82	56	54	4DW3

Material: Flex PVC. For round downpipe.



Size (mm)	A	L	Code
<b>ADAPTOR TO ABOVE GROUND DRAIN</b> - for connecting 62mm or 75mm downpipes and 82mm underground drain			
110/62	56	54	4DW23
110/75	37	58	4DW33

Material: Flex PVC. For square downpipe.



# Flexicon Couplings & End Caps

## Flexicon adaptors



	Range AB mm	Length (min)	Code	Driver
<b>FLEXICON UNIVERSAL ADAPTORS (XAC)</b>				
▽	120 - 135/100 - 115	100	XAC400	7mm/8mm



	Range AB mm	Length (min)	Code	Driver
<b>FLEXICON DRAINAGE ADAPTORS (XAC)</b>				
▽	100 - 115/75 - 85	100	XAC85/115	7mm/7mm
▽	100 - 115/85 - 95	100	XAC95/115	7mm/7mm
▽	130 - 145/110 - 125	120	XAC125/145	7mm/7mm
▽	145 - 160/110 - 125	120	XAC125/160	7mm/7mm
▽	150 - 165/110 - 115	120	XAC115/165	7mm/7mm
▽	160 - 175/110 - 125	120	XAC125/175	7mm/7mm



	Range AB mm	Length (min)	Code	Driver
<b>FLEXICON PLUMBING ADAPTORS (XPA)</b>				
▽	50 - 65/30 - 45	80	XPA45/65	7mm/7mm
▽	80 - 95/45 - 50	100	XPA50/95	7mm/7mm



	Range AB mm	Length (min)	Code	Driver
<b>FLEXICON DRAIN COUPLINGS (XDR)</b>				
▽	50 - 65	95	XDR65	7mm
▽	80 - 95	110	XDR95	7mm
▽	100 - 115	110	XDR115	7mm
▽	110 - 125	120	XDR125	7mm
▽	150 - 165	120	XDR165	7mm
▽	150 - 175	120	XDR175	7mm
▽	175 - 200	150	XDR200	8mm

## Flexicon couplings

	Range AB mm	Length (min)	Code	Driver
<b>FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)</b>				
▽	100 - 115	120	XSB115	8mm
▽	110 - 120	120	XSB120	8mm



	Range AB mm	Code	Driver
<b>FLEXICON END CAPS (XST)</b>			
▽	50 - 65	XST65	7mm
▽	80 - 95	XST95	7mm
▽	100 - 115	XST115	7mm



## Terrain Underground



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