



### **Terrain Underground**

PVC-u underground drainage systems



### Terrain Underground

Using the latest plastics manufacturing technology to satisfy the requirements of today's installers, the Terrain underground range offers both rigid and foamcore 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



Available in 82, 110, 160, 200, 250 & 315mm 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.

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

#### **Manufacturing Standards**



BS EN 1401:1998 Underground Drainage

BS EN 7158:2001 Plastic 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











### Contents

#### **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 manufacture of drainage pipes and fittings; we remain at the forefront of the industry across the globe with the use of ever-more environmentally friendly materials with no loss of mechanical characteristics.

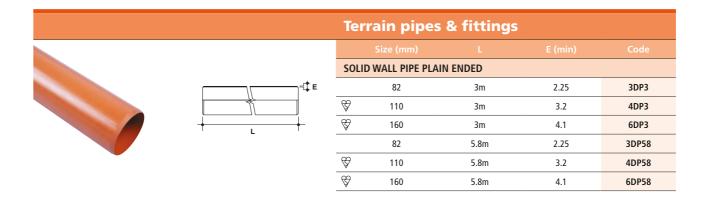
Utilising a sustainable material composition contributes significantly to an environmentally friendly manufacturing process and gives a finished product that can be recycled in accordance with British Standards.

For further information, please refer to www.polypipe.com

### Terrain Underground

Terrain Pipes & Fittings	04 - 08
Terrain Pipes & Fittings DX Range	09
Terrain Large Diameter Pipes & Fittings	10 - 11
Terrain Gullies & Hoppers	12 - 13
Terrain Inspection Chambers	14 - 16
Accessories	17
Terrain Adaptors	18
Flexicon Couplings & End Caps	19 - 21
System Planning	22 - 30
Further Information	31
Non UK Basic Design Principles	32 - 33
Product Index	34 - 35

### Terrain Drainage System

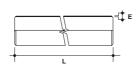






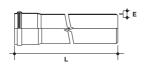
	Size (mm)	L	E (min)	Code				
SOLID WALL PIPE SINGLE SOCKET								
\$	110	3m	3.2	4DP3S				
\$	110	6m	3.2	4DP6S				
\$	160	6m	4.1	6DP6S				





			Code				
FOAMCORE PIPE PLAIN ENDED							
110	3m	3.2	4EUP3				
110	5.8m	3.2	4EUP58				
160	5.8m	4.1	6EUP58				





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

Please refer to pages 10/11 for diameters 200-315mm

# Pipes & Fittings

#### Terrain pipes & fittings D Range

	Size (mm)	L	Z	Code					
COUP	COUPLER DOUBLE SOCKET - with central stop								
	82	136	3.5	3D20D					
\$	110	122	2	4D20D					
\$	160	154	4	6D20D					

			Code			
SLIP COUPLER - for inserting new fittings into existing pipework (e.g. refurbishment or repair)						
♥	110	122	4D20DSC			
\$	160	154	6D20DSC			

Size (mm)			L2	L3	Code
PIP	E END SOCKET				
\$	110	121	48	3	4D69
\$	160	167	68	3	6D69

Size (mm)		z	Code				
LEV	LEVEL INVERT TAPER - larger end spigot and smaller end socket						
\$	110/82	104	43DT				
\$	160/110	143	64DT				

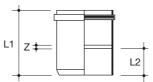
Material: PVC-u

Size (mm) Angle°				Code						
SHORT RADIUS BEND DOUBLE SOCKET - to change pipe direction: 87½°, 45°, 30° & 15° as standard										
	82	871/2	142	70	3D23D					
	82	45	97	25	3D25D					
\$	110	871/2	120	70	4D23D					
\$	110	45	87	37	4D25D					
\$	110	30	83	27	4D27D					
\$	110	15	76	20	4D29D					
\$	160	871/2	202	124	6D23D					
\$	160	45	122	49	6D25D					
\$	160	30	114	40	6D27D					
8	160	15	101	28	6D29D					

				L2	Z1	Z2	Code		
SHORT RADIUS BEND SINGLE SOCKET - to change pipe direction: 87½°, 45°, 30° & 15° as standard									
\$	110	871/2	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	871/2	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		





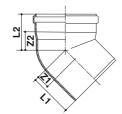
















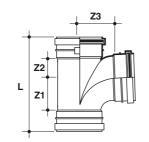






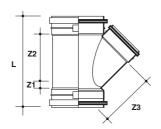


# Terrain Drainage System



refrain pipes & fittings b hange									
	Size (mm)	Angle°	L	Z1	Z2	Z3	Code		
SINGLE EQUAL JUNCTION - to join 82mm main pipe at an angle: 45° as standard									
\$	110	871/2	268	87	57	87	4D30D		
\$	160	871/2	338	95	99	99	6D30D		
BBA	82	45	265	19	108	102	3D33D		
\$	110	45	294	37	137	137	4D33D		
8	160	45	399	52	203	203	6D33D		

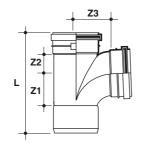




				Z1	Z2	<b>Z</b> 3	Code	
SINGLE UNEQUAL JUNCTION (all sockets) - to join 110mm branch pipe to 160mm main pipe at an angle								
♥	160/110	45	278	27	143	143	64D33D	
\$	160/110	871/2	397	38	205	205	64D30D	

45° and 87½° as standard.

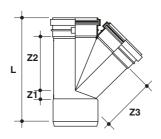




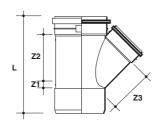
	Size (mm)	Angle°	L	<b>Z</b> 1	Z2	Z3	Code
SINGLE EQUAL JUNCTION SPIGOT OUTLET - to join 110 or 160mm branch to 110 or 160mm main pipe at an angle							
\$	110	871/2	239	59	69	69	4D30
\$	110	45	278	27	143	143	4D33
\$	160	45	397	38	205	205	6D33

(110mm)  $87\%^\circ$  and  $45^\circ$  as standard. (160mm)  $45^\circ$  as standard.









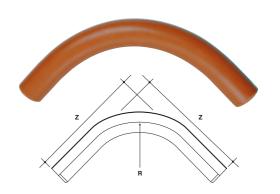
	Size (mm)	Angle°	L	Z1	Z2	Z3	Code
SPIGOT OUTLET - to join 110mm branch pipe to 110 or 160mm main pipe at an angle							
₩	160/110	45	326	2	168	176	64D33

45° as standard.

### Pipes & Fittings

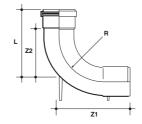
#### **Terrain pipes & fittings**

Size (mm)				Code		
LONG RADIUS BENDS (plain ended) - 90° and 45° as standard						
110	90	455	539	4D22		
110	45	455	368	4D28		



Size (	mm) An	igle° L	R	R Z1	Z2	Code
REST BENI	SINGLE	SOCKET - t	o change '	110mm at ba	se of soil stack:	87½° as standard
11	0 8	7½ 23	) 20	0 245	170	4D21

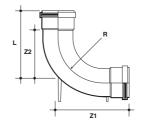
Satisfies recommendations of BS 5772: 1994.





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

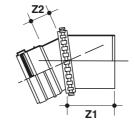
Satisfies recommendations of BS 5772: 1994.





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

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

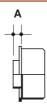




# Terrain Drainage System

#### **Terrain pipes & fittings**





	Size (mm)	A	Code
SOCK	KET PLUG - to	blank off any ring seal socket	
\$	110	18	4D68
\$	160	16	6D68
		<b>♥</b> 110	SOCKET PLUG - to blank off any ring seal socket  110 18

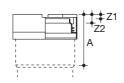




	Code					
TEMPORARY SITE CAP - for temporary capping of system						
30	4D65					
	for temporary capping of system					

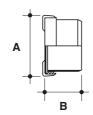
Versions for external and internal use.





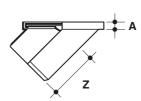
Size (mm)		Z1	Z2	Code
ACCESS CAP - Solv	ent Skt			
83	83	16	32	3D63
110	97	21	46	4D63
160	122	22	42	6D63





	Size (mm)	Α	В	Code		
ACCESS CAP - to allow full bore access to 82, 110 or 160mm pipework for inspection or rodding						
	82	101	85	3D64		
\$	110	118	103	4D64		
\\$	160	186	107	6D64		





Size (mm)	А	Z	Code			
RODDING EYE - elliptical rodding eye with 110mm pipe size spigot						
110	13	95	4DRE			

# Pipe & Fittings

#### Terrain pipes & fittings DX Range

				Code			
COU	COUPLER DOUBLE SOCKET - with central stop						
\$	110	122	2	4D20DX			
\$	160	154	4	6D20DX			

	Size (mm)	L	Code
SLIP	COUPLER - for i	nserting new fittings into existi	ng pipework (e.g. refurbishment or repair)
\$	110	122	4D20DSCX
\\$	160	154	6D20DSCX

Size (mm)			L2	L3	Code
PIPE	END SOCKET				
\$	110	121	48	3	4D69
\\$	160	167	68	3	6D69

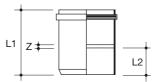
	Size (mm)	Angle°	L	Z	Code
	ORT RADIUS B 5° as standard	END DOUBLE	SOCKET - to ch	ange pipe directior	n: 87½°, 45°, 30°
\$	110	871/2	120	70	4D23DX
8	110	45	87	37	4D25DX
\$	160	871/2	202	124	6D23DX
\$	160	45	122	49	6D25DX

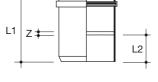
Size (mm)	Angle°	L	Z1	Z2	Z3	Code
GLE EQUAL J or 160mm main			ıal socke	e <b>ts) -</b> to jo	in 110 or 1	60mm branch to
\$ 110	871/2	268	87	57	87	4D30DX
\$ 160	871/2	338	95	99	99	6D30DX
\$ 110	45	294	37	137	137	4D33DX
\$ 160	45	399	52	203	203	6D33DX

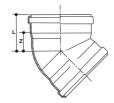
	Size (mm)	Angle°	L	Z1	Z2	Z3	Code
UNE	QUAL SOCK	ETS					
\$	160/110	45	325	11	166	171	64D33DX

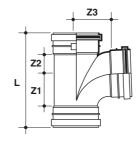


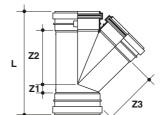






















# Terrain Drainage System

Terrain large diameter pipes & fittings								
Size (mm)			Code					
SOLID WALL PIPE S	INGLE SOCKET							
200	5.8m	4.9	8DP58S					
250	5.8m	6.2	10DP58S					
315	5.8m	7.7	12DP58S					

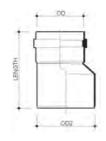




Size (mm)		OD	Code
COUPLER DOUBLE	SOCKET		
200	216	200	UG801*
250	270	250	UG1001*
315	170	315	UG1201
315	170	315	UG1200**

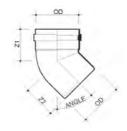
<sup>\*</sup>Remove centre stop for use as slip coupling
\*\* Slip coupler





		OD	OD2	Code
LEVEL INVERT TAP	ER			
160/200	264	160	200	UG821
200/250	330	200	250	UG1021
315	415	250	315	UG1221





Size (mm)	Angle°	OD	L	Z	Code				
SHORT RADIUS BEND DOUBLE SOCKET									
200	45	200	160	130	UG803				
200	15	200	150	150	UG809				

### Large Diameter Pipes & Fittings

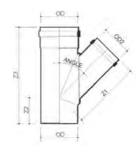
#### **Terrain large diameter pipes & fittings**

Size (mm)		OD	Z1	Z2	Code					
SHORT RADIUS	SHORT RADIUS BEND SINGLE SOCKET									
200	871/2	200	210	210	UG812					
200	45	200	150	150	UG804					
200	15	200	160	130	UG810					
250	871/2	250	2621/2	2621/2	UG1012					
250	45	250	187½	187½	UG1004					
250	30	250	190	190	UG1068					
250	15	250	190	190	UG1010					
315	871/2	315	330	330	UG1212					
315	45	315	235	235	UG1204					
315	30	315	251	204	UG1268					
315	15	315	251	204	UG1210					



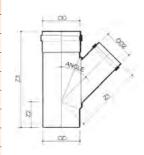


			OD	Z1	Z2	Z3	Code
SIN	NGLE EQUAL J	UNCTION	S				
	200	45	200	360	140	490	UG806
	200	45	200	360	140	490	UG805
	250	45	250	495	175	650	UG1006
	315	45	315	600	200	860	UG1206





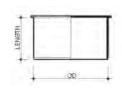
	Size (mm)	Angle°	OD	OD2	Z1	Z2	Z3	Code
SI	NGLE UNEQUA	AL JUNCT	IONS	(DOUBL	E SOCK	(ET)		
	200/110	45	200	110	310	140	490	UG836
	200/160	45	200	160	310	140	490	UG837
	250/110	45	250	110	400	175	650	UG1036
	250/160	45	250	160	400	175	650	UG1016
	250/200	45	250	200	465	175	650	UG1017
	315/110	45	315	110	516	220	860	UG1236
	315/160	45	315	160	516	220	860	UG1216
	315/200	45	315	200	600	220	860	UG1217
	315/250	45	315	250	680	220	860	UG1218
	200/110	45						UG835*
	200/110	45						UG831*





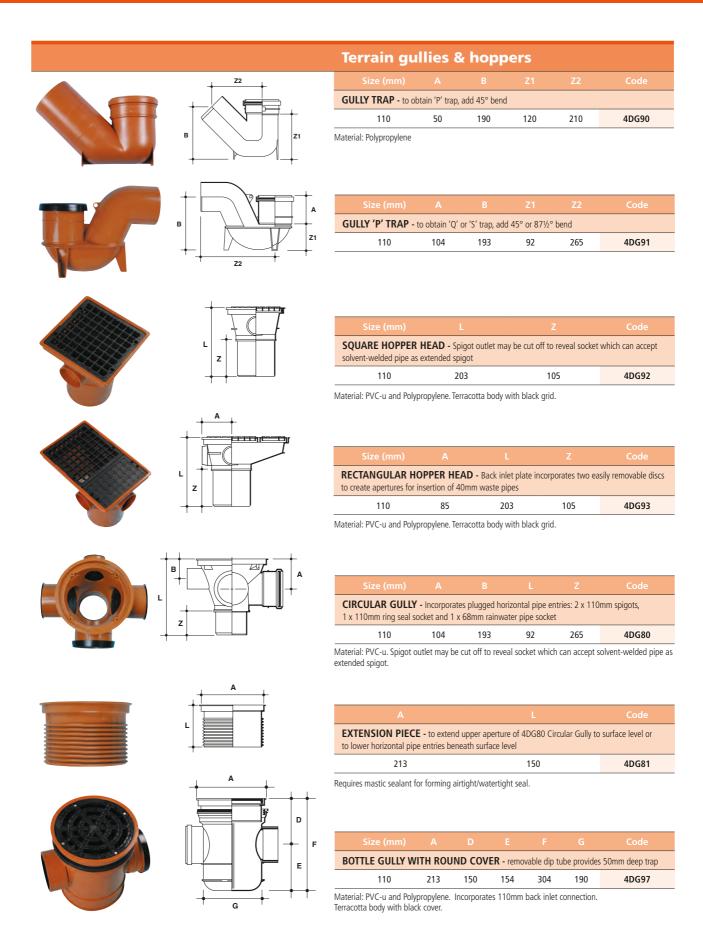
<sup>\*</sup>Triple Socket

Size (mm)	OD	Code
SOCKET PLUG		
200	200	UG820
250	250	UG1020
315	315	UG1220





### Terrain Drainage System



### Gullies & Hoppers

#### **Terrain gullies & hoppers**

Size (mm) A B C D E F G Code

 $\textbf{BOTTLE GULLY WITH SQUARE COVER} \ - \ \text{removable dip tube provides 50mm deep trap}$ 

110 232 76 60 212 154 366 190 **4DG89** 

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
SEALED COVER - to cap 4DG80 Cirular Gully or 4DG81 extension	
211	4DG82



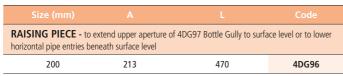


А	Code
<b>CIRCULAR GRATING</b> - to provide an open grating for surface water drainage for 4DG80 Circular Gully or 4DG81 Extension Piece	
211	4DG83

Also: spare grating for 4DG97 Bottle Gully.







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





Depth (mm)			Code
SQUARE HOPPER I	<b>HEAD -</b> spare grid for 4D0	G92 Hopper Head	
13	155	155	4DG92G

Material: Polypropylene.

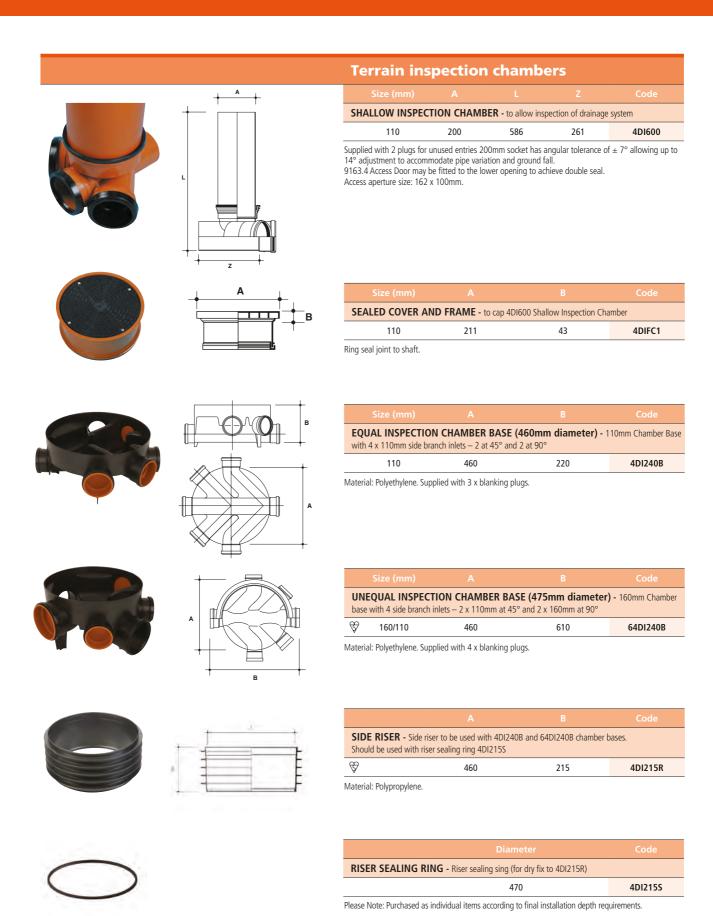
	0					٠		ì
Н	Н	Н	Н	Н	Н	Н	Н	l
Н	Н	Н	Н	П				ı
								ı
Н	Н	L	Н	Ц	Н	Ц	Н	ı
Н	Н	Н	Н	Н	Н	Н	н	ı
Н	Н	Н	Н	Н	Н	Н	Н	ı
	$\mathbf{r}$	_				Ю	_	,

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

Material: Polypropylene.



### Terrain Drainage System



### Inspection Chambers

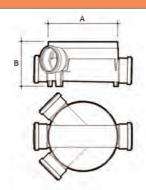
#### **Terrain inspection chambers**

A B Code

EQUAL INSPECTION CHAMBER BASE - Chamber base with 2 x 110mm 45° side branch inlets

320 170 4D11702B

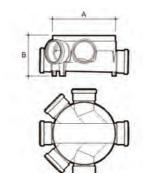
Material: Polyethylene. Supplied with 2 x blanking plugs.





	A	В	Code
<b>EQUAL INSPECT</b> – 2 at 45° and 2 at 9	ION CHAMBER BASE -	Chamber base with 4 x 110	mm side branch inlets
♥	320	170	4DI1704B

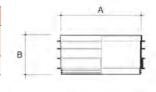
Material: Polyethylene. Supplied with 3 x blanking plugs.





	A	В	Code
SIDE RISER - Sic Should be used with			
\\	320	135	4DI135R

Material: Polypropylene.



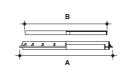


	A	В	Code	
RISER SEALING	RISER SEALING RING - Riser Sealing Ring (for dry fix to 4DI135R)			
\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	320	170	4DI135S	

	1
	)

	A	В	Code
COVER AND FRAME - BS EN 124: 1994 - Gro Only suitable for 460/470mm diameter chambers		up 1, Class A15 (formerly B	S497: 1976 Class C+)
\\$	579	454	4DIFC4
		1.1	

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





### Terrain Accessories

# TERRAIN Terrain Cleaning Fluid

#### **Terrain accessories**

Size (ml)

Code

 $\begin{tabular}{ll} \textbf{TERRAIN ACCESSORIES - CLEANING FLUID -} for cleaning PVC-up ipe and fittings before applying Liquid Weld \\ \end{tabular}$ 

125	9101.125CF
250	9101.250CF

Material: Acetone. Screw top cans.



Size (ml)		Code
TERRAIN ACCESS	ORIES - LUBRICANT - for lubricating seal rings of	n expansion fittings
250	Tub (Silicone)	9136.250L
500	Tub (Soluble)	9136.500L

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				
\$ 250	Tub	9100.250SW		
\$ 500	Tub	9100.500SW		

# Terrain Adaptors

#### **Terrain adaptors**

Size (mm) A B Code

UNIVERSAL RAINWATER ADAPTOR - for connecting round and square PVC-u
rainwater downpipe (up to 68mm) to underground drainpipe

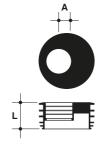
110 110 102 4D76





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

Material: EPDM





Size (mm)	A	L	Code		
ADAPTOR TO ABOVE GROUND DRAIN - 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.

	A	
L		



Size (mm)	А	L	Code			
ADAPTOR TO ABOVE GROUND DRAIN - for connecting 62mm or 75mm downpipes and 82mm underground drain						
110/62	56	54	4DW23			

Material: Flex PVC. For square downpipe.





# Flexicon Adaptors





Fle	Flexicon adaptors						
	Range AB mm	Length (min)	Code	Driver			
FLEXI	FLEXICON UNIVERSAL ADAPTORS (XAC)						
\$	120 - 135/100 - 115	100	XAC400	7mm/8mm			
\$	180 - 200/160 - 180	150	XAC600	8mm/8mm			
\$	260 - 285/180 - 205	150	XAC800	8mm/8mm			

	Range AB mm	Length (min)	Code	Driver	
FLEXICON DRAINAGE ADAPTORS (XAC)					
\$	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	
\$	145 - 160/125 - 140	120	XAC140/160	7mm/7mm	
\$	150 - 165/110 - 115	120	XAC115/165	7mm/7mm	
♥	160 - 175/110 - 125	120	XAC125/175	7mm/7mm	
\$	170 - 185/145 - 160	120	XAC160/185	7mm/7mm	
\$	175 - 190/110 - 125	120	XAC125/190	7mm/7mm	
\$	175 - 190/125 - 140	120	XAC140/190	7mm/7mm	
\$	180 - 195/160 - 175	120	XAC175/195	7mm/7mm	
♥	190 - 205/110 - 125	150	XAC125/205	8mm/7mm	
\$	195 - 210/160 - 175	150	XAC175/210	8mm/7mm	
\$	215 - 230/125 - 140	150	XAC140/230	8mm/7mm	
\$	215 - 230/145 - 160	150	XAC160/230	8mm/7mm	
\$	213 - 230/175 - 190	150	XAC190/230	8mm/8mm	
♥	230 - 245/125 - 140	150	XAC140/245	8mm/7mm	
♥	230 - 245/145 - 160	150	XAC160/245	8mm/7mm	
\$	230 - 245/175 - 190	150	XAC190/245	8mm/8mm	
\$	245 - 260/145 - 160	150	XAC160/260	8mm/7mm	
\$	245 - 260/175 - 190	150	XAC190/260	8mm/8mm	
♥	265 - 280/145 - 160	150	XAC160/280	8mm/8mm	
\$	260 - 285/240 - 265	150	XAC900	8mm/8mm	
\$	305 - 320/145 - 160	150	XAC160/320	8mm/8mm	
♥	305 - 320/175 - 190	150	XAC190/320	8mm/8mm	



	Range AB mm	Length (min)	Code	Driver		
FLEXIO	FLEXICON PLUMBING ADAPTORS (XPA)					
\\$	50 - 65/30 - 45	80	XPA45/65	7mm/7mm		
\$	80 - 95/45 - 50	100	XPA50/95	7mm/7mm		
\$	100 - 115/45 - 50	100	XPA50/115	7mm/7mm		
\$	80 - 95/50 - 65	100	XPA65/95	7mm/7mm		
\$	100 - 115/50 - 65	100	XPA65/115	7mm/7mm		

#### Flexicon couplings

	Range AB mm	Length (min)	Code	Driver		
FLEXICO	FLEXICON DRAIN COUPLINGS (XDR)					
\$	50 - 65	95	XDR65	7mm		
\$	80 - 95	110	XDR95	7mm		
\$	100 - 115	110	XDR115	7mm		
\$	110 - 125	120	XDR125	7mm		
\$	120 - 135	120	XDR135	7mm		
♥	135 - 150	120	XDR150	7mm		
\$	150 - 165	120	XDR165	7mm		
\$	150 - 175	120	XDR175	7mm		
\$	160 - 180	120	XDR180	7mm		
\$	175 - 200	150	XDR200	8mm		
\$	200 - 215	150	XDR215	8mm		
₩	200 - 225	150	XDR225	8mm		
\$	225 - 250	150	XDR250	8mm		
\$	250 - 275	150	XDR275	8mm		



	Range AB mm	Length (min)	Code	Driver		
FLEXICO	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)					
\$	100 - 115	120	XSB115	8mm		
\$	110 - 120	120	XSB120	8mm		
\$	110 - 125	120	XSB125	8mm		
\\$	120 - 135	120	XSB135	8mm		
\\$	135 - 150	120	XSB150	8mm		
♥	150 - 165	120	XSB165	8mm		
₩	160 - 175	120	XSB175	8mm		
\\$	160 - 180	120	XSB180	8mm		
_ ♥	175 - 200	150	XSB200	8mm		
₩	200 - 215	150	XSB215	8mm		
₩	200 - 225	150	XSB225	8mm		
₩	225 - 250	150	XSB250	8mm		
₩	250 - 275	150	XSB275	8mm		
\\$	265 - 290	150	XSB290	8mm		
\\$	285 - 310	190	XSB310	8mm		
₩	295 - 320	190	XSB320	8mm		
\\$	305 - 335	190	XSB335	8mm		
\\$	315 - 345	190	XSB345	8mm		
\$	345 - 360	190	XSB360	8mm		
\$	360 - 385	190	XSB385	8mm		
♥	385 - 410	190	XSB410	8mm		



### Accessories





Flexic	Flexicon end caps					
	Range AB mm	Code	Driver			
FLEXICON	END CAPS (XST)					
\$	20 - 32	XST32	7mm			
\\$	30 - 42	XST42	7mm			
\$	40 - 50	XST50	7mm			
\$	50 - 65	XST65	7mm			
\\$	80 - 95	XST95	7mm			
\$	100 - 115	XST115	7mm			
\$	110 - 125	XST125	7mm			
\$	120 - 135	XST135	7mm			
\$	135 - 150	XST150	7mm			
\$	145 - 160	XST160	7mm			
\$	165 -0180	XST180	7mm			
\$	185 - 200	XST200	8mm			
8	200 - 215	XST215	8mm			

Range A/B mm	Code
FLEXICON ACCESSORIES - FLEXIDRIVER - flexible screwdriver	
7mm Flexidriver	XFD700
8mm Flexidriver	XFD800

### Terrain System Planning

#### System planning

#### Handling

- Take all reasonable care when handling PVC-u, particularly in very cold conditions when the impact strength of the material is reduced.
- Do not throw or drop pipes, or drag them along hard surfaces.
- In case of mechanical handling, use protective slings and padded supports. Metal chains and hooks should not make direct contact with the pipe.

#### **On-site storage**

- Stack pipe lengths:
  - either on a flat base
  - or on level ground
  - or on 75mm x 75mm timber at 1.0m maximum centres
- Provide side support with 75mm wide battens at 1m centres (Fig. 1).
- Maximum stack: seven layers high.
- Ideally, stacks should contain one diameter pipe size only. Where this is not possible, stack largest diameter pipes at base of stack. Small pipes may be nested inside larger pipes.
- If stored in the open for long periods, or exposed to strong sunlight, cover the stack with opaque sheeting.

- Store fittings under cover. Do not remove from cartons or packaging until required.
- Store solvent cement and cleaning fluid in a cool place in accordance with the relevant regulations detailed in the Health & Safety at Work Act 1974.

#### Storage in hot climates

- Ultra-violet light can affect pipes and fittings: pipe colour may change and rubber seals may be degraded.
- Accordingly:
  - store all materials in well-ventilated, shady conditions
  - do NOT expose to direct sunlight
  - keep fittings in original packaging until required for use
- Maximum stack (hot conditions): six layers high.

#### **Site safety**

- The relevant regulations detailed in the Health & Safety at Work Act 1974, and Construction (Design & Management) Regulations 1995, must be adhered to on-site.
- COSHH data sheets are available on request.

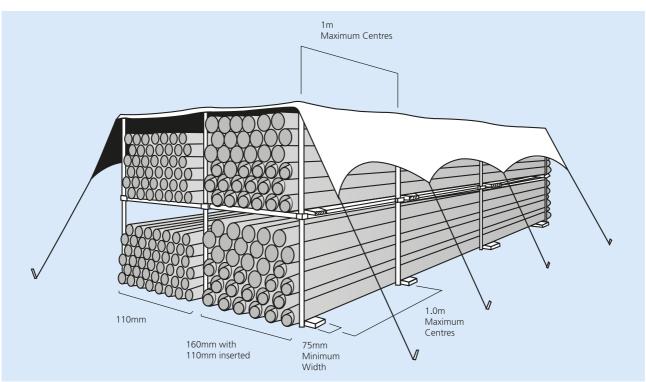


Fig. 1 Pipe stacking

### Terrain System Planning

#### **System planning**

#### **Seal ring jointing**

**Important:** A 9mm expansion gap must be created at all seal ring joints to allow pipes to expand or contract without stressing during wide temperature variations.

#### Step 1

Pipe lengths are supplied ready-chamfered. For site-cut pipes and offcuts, ensure cut is square - then file ends to provide 45° external chamfer. (Do not chamfer to a knife edge.) Lubricate rubber seal with 9136 Lubricant (Fig. 2a).

#### Step 2

Push pipe fully into socket. Mark pipe against socket edge as shown (Fig. 2b).

#### Step 3

Withdraw pipe until mark is 9mm from socket edge to provide required expansion gap (Figs 2c and 2d).

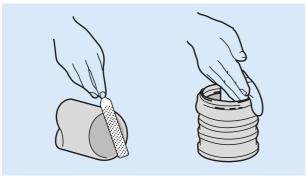


Fig. 2a Filing chamfer

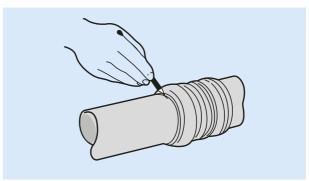


Fig. 2b Pushing in pipe/marking pipe

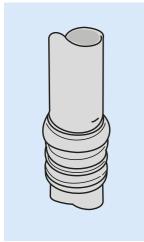


Fig. 2c Pipe withdrawn by 9mm

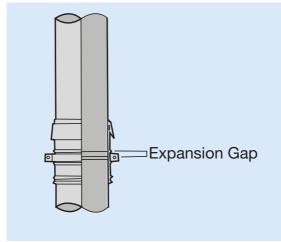


Fig. 2d Pipe Expansion gap

#### System planning

#### Pipe bedding and backfill

All bedding and backfilling of Terrain Underground pipes should be in accordance with BS EN 5955: Part 6 Installation of PVC-u pipework for gravity drains and sewers, or the BBA Certificate.

Terrain 110mm and 160mm PVC-u underground drainage systems have been awarded British Board of Agrément Certificate No. 94/3049. This allows:

- 50mm depth of granular bedding (Fig. 3)
- Where the as-dug soil is suitable, pipes may be laid directly on a trimmed trench bottom (Fig. 4)

Suitable material is defined as granular material in accordance with the recommendations of BS EN 5955: Part 6: 1980 having a nominal particle size not exceeding 10mm or 14mm for 110mm and 160mm diameter pipes respectively, or that which passes the tests described in appendix A of the above standard.

#### Where the as-dug material is unsuitable

A bed of suitable imported granular material must be laid on the trench bottom prior to installation of pipes and be used for sidefill up to the level of the crown of the pipe.

If the trench may be hand trimmed by shovel and is not puddled when walked on, a bed of 50mm is sufficient (Fig. 3).

When pipes are to be laid in hard ground requiring mechanical means of trimming (e.g. rock, compacted sand or gravel), or in very soft or wet ground, a bed of min. 100mm is required (Fig. 5).

#### **Drains under buildings**

Where drains are required to be laid under buildings, deep hardcore from within the foundation boundaries should be compacted prior to excavating the trench for the pipe. Suitable material should then be employed for the bedding and backfilling.

When trenches are dug from original ground, pipes may be laid and surrounded with appropriate material before the top layer of hardcore is placed.

Where pipes pass through a wall or foundations of a building, they should be protected by a lintel or sleeve.

#### **Shallow drains**

Where there is risk of damage, pipes laid at less than 600mm depth (not under a road) should be protected by use of a paving slab or similar. A minimum 75mm cushioning layer of granular material must be laid between any slab and the crown of the pipe.

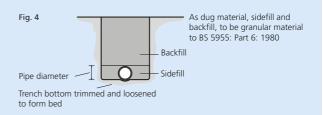
#### Pipes laid under roads

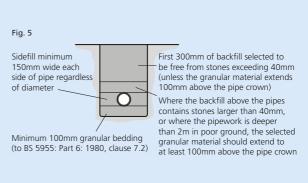
The minimum cover under roads should be 1.2m from the top of the pipe. Where this is less than 1.2m additional protection is required ie. reinforced bridging slabs.

#### Requirements for imported material for backfill

Nominal pipe size	Material complying with BS 882: 1992
110mm	10mm nominal single-sized aggregate
160mm	14mm nominal single-sized aggregate







### Terrain System Planning

#### System planning

#### **Rodding points**

Rodding points may be used on drains with invert depths up to 2m. They may be located at the head of a drain or at intermediate positions as an alternative to an inspection chamber or manhole. However,

- Because rodding is possible in the direction of flow only, sufficient rodding points must be incorporated to provide access to all parts of the drain.
- As it is not possible to remove debris from a rodding point, an inspection chamber or manhole must be provided at a point downstream.

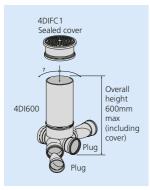
During installation, care must be taken to ensure no load is transferred onto the branch upstand of the pipe.

#### **Shallow inspection chamber**

Provides an alternative to traditional manholes for invert depths up to 600mm. Intermediate depths can be accommodated by cutting chamber riser with a fine-tooth saw. The base unit is supplied with two contoured plugs sealing the two side connections. For left or right hand single connections, the appropriate plug is removed. The 4DI600 Shallow Inspection Chamber can be used with 4DIFC1 Sealed Cover and Frame (PVC-u) (Fig. 6). If situated in an area where it may be damaged, the frame should be surrounded with concrete to prevent movement and provide extra security.

#### **Inspection chambers**

The Terrain 4DI240B and 64DI240B Inspection Chambers provide an alternative to traditional manholes for invert depths up to 1.2 metres. It comprises a base unit and three raising pieces (4DI235R) to allow a range of heights to be easily achieved (Fig. 7).



4DI215S

4DI215S

4DI215S

4DI215R

Overall height 1.2m max (including cover)

Fig. 6

Fig. 7

#### **Overall heights**

Overall heights	
Including cast iron frame and cover	
Base Unit	285mm
Base unit plus 1 raising piece	520mm
Base unit plus 2 raising pieces	755mm
Base unit plus 3 raising pieces	990mm
Base unit plus 4 raising pieces	1225mm

Intermediate heights can be achieved by cutting the top raising piece as necessary. Chambers should be installed on a 100mm bed of suitable granular material or as dug material. The bedding material must be evenly compacted under the base so that the chamber is fully supported. Different covers are available to meet varying application requirements:

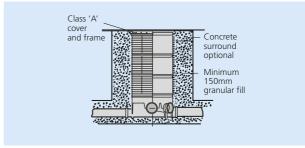


Fig. 8

#### Polypropylene cover and frame (4DIFC4):

For use where cars and light vehicles have access but NOT heavy vehicles (Fig. 9) rated to 35kN.

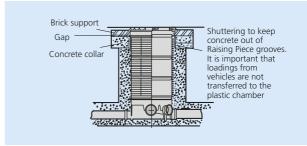


Fig. 9

#### **System planning**

Suitable for invert depths of up to 1.2metres, the 64DI240B Unequal Inspection Chamber incorporates a through drain of 160mm and side connections of 110mm (Fig. 10).

The specific required height can be achieved by cutting the chamber body or extension piece (4DI235R) with a fine-tooth saw.

The unit is supplied with all inlets and outlets blanked off. These are easily opened for use by cutting off the ends with a fine tooth saw.

The appropriate cover should be selected, as for the Terrain Inspection Chamber. For installation details see page 21.

One or more inspection chamber bases 4DI240B or 64DI240B with upstand removed may be used at the base of manholes as an alternative to benching in half channel or slip couplings.

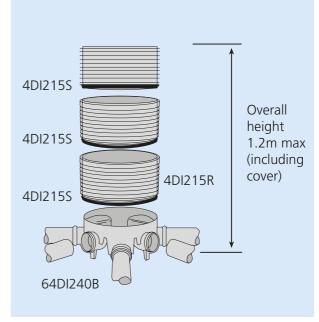


Fig. 10

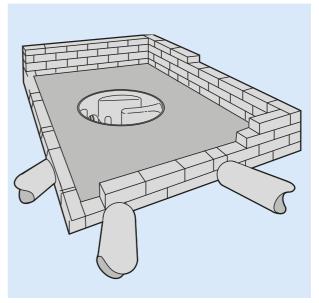


Fig. 11

### Terrain System Planning

#### System planning

#### Bottle gully - square cover (Fig. 16)

The frame and cover may be rotated to meet site requirements and the square grid cut away to suit rainwater or waste pipe entry. The back inlet socket is suitable for solvent weld connection of 110mm diameter pipe. A push-in blank plug is supplied for use when connection is not required.

To connect waste pipes to back inlet bosses: remove rubber plug from side bosses and solvent-weld appropriate fitting



#### For straight connectors

Straight connectors	
32mm	117.125
40mm	117.15
50mm	117.2

#### For 90° bend connectors

90° Bend connectors	
32mm	117.15.90 & 224.15.125
40mm	117.15.90
50mm	117.2.90

NOTE: The height of the cover and frame (with the back inlets) may be raised by cutting off the spigot and extending with 200mm pipe.

#### Bottle gully - round cover (Fig. 18)

To connect 110mm pipe to back inlet socket:

remove polypropylene plug and solvent-weld pipe or spigot of fitting. The gully may be extended by using the 4DG96 Raising Piece (Fig. 19). The grating and frame should be removed from the gully and the raising piece inserted. The grating should then be fixed to the top of the raising piece. The original gully frame unit should be discarded.

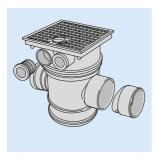


Fig. 16 Fig. 17

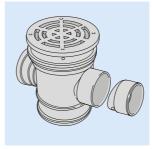




Fig. 18

Fig. 19

#### **Gully traps/bends arrangements**

#### P Trap

Use 4DG90 Gully Trap and 4D25D Bend 45° (Fig. 20)

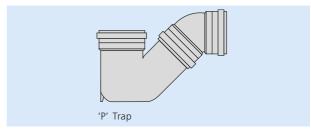


Fig. 20

#### Q Trap

Use 4DG90 Gully Trap and 4D23D Bend 871/2° (Fig. 21)

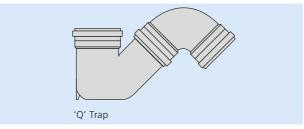


Fig. 21

#### Q Trap

Use 4DG90 Gully Trap with 4D23D Bend 871/2° and 4D25 Bend 45° (Fig. 22)

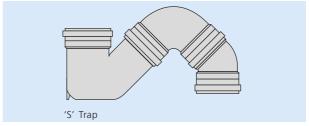


Fig. 22

#### **System planning**

#### Circular gully and traps (Fig. 23)

This 4DG80 gully is designed to accept both the 4DG82 Sealed Cover and the 4DG83 Circular Grating.

Where required, the unit may be extended by fitting the 4DG81 Extension Piece into the top of the gully.

The gully fitting incorporates:

- 2 x side spigot inlets (110mm dia spigots)
- 1 x 110mm ring seal socket inlet
- 1 x 68mm spigot inlet, to accept rainwater pipe

Each inlet is fitted with a removable polypropylene plug.

The 110mm spigot outlet may be removed - by cutting with a fine-tooth hand saw - to leave a socket to accept 110mm pipe with solvent-weld joint.

#### Hoppers and traps (Fig. 24)

Hoppers are supplied with open grids which snap into place. Sealed covers are available and should be secured using the self-tapping screws provided.

The 110mm spigot outlets may be removed – by cutting with a fine-tooth hand saw – to leave a socket to accept 110mm pipe with solvent-weld joint

To connect waste pipe to side bosses

- Drill out blanking plug using a 51mm diameter hole saw
- Solvent-weld appropriate fitting:

#### For straight connectors

Straight connectors	
32mm	117.125
40mm	117.15
50mm	117.2

#### For 90° bend connectors

90° Bend connectors	
32mm	117.15.90 & 224.15.125
40mm	117.15.90
50mm	117.2.90

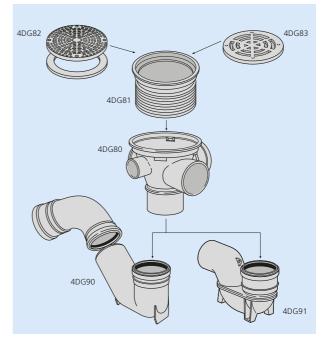


Fig. 23

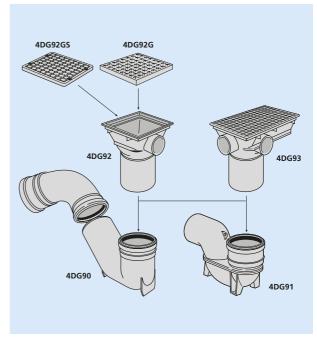


Fig. 24

### Terrain System Planning

#### **System planning**

#### System connections to above ground drainage

### Connecting to soil system (soil pipe to BS EN 1329)

- 110mm Underground Pipe to 110mm Soil Pipe
   110mm Underground Pipe may be connected directly to 110mm Soil Pipe (Fig. 25)
- A 45° external chamfer should be filed onto the end of square cut soil pipe. The soil pipe is then push-fit into the underground drain ring seal socket, using
   9136 Lubricant
- 110mm Underground Pipe to 82mm Soil Pipe (Fig. 26)
  Connection should be made using the 4DW3 Socket
  Reducer. The socket reducer is inserted into the plain
  end of the underground pipe. The 82mm soil pipe is
  then pushed into top of reducer



Connection is made using the **124 Socket Reducer**. The socket reducer is pushed into the ring seal of the socket on the underground drain pipe. The waste pipe is solvent-welded into reducer. Additional reducers may be used as required.



The **4DW Adaptor** enables simple push-fit connection of 110mm underground pipe to waste or rainwater systems. It is available for the following pipe sizes:

Rainwater	
68mm round	4DW25
62mm square	4DW23
82mm round	4DW3

Waste	
32mm round	
40mm square	4DW200
50mm round	

### Connecting to BS EN 5255/524/1566 waste pipe (Fig. 28) (also to copper waste pipe)

The centre of 4D68/6D68 Socket Plug should be drilled out, ready for solvent-weld connection of the appropriate size 4DW Boss Adaptor. Seal rings on 4DW and underground drain socket should be lubricated using 9136 Lubricant. The socket plug is then inserted into the underground drain socket and 200 Waste Pipe (or copper waste pipe) into 4DW adaptor.

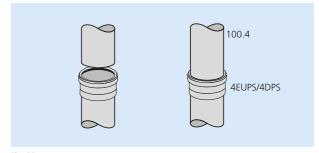


Fig. 25

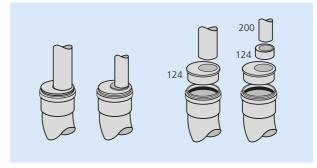


Fig. 26

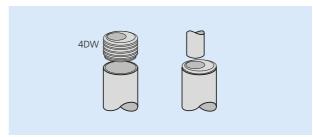


Fig. 27

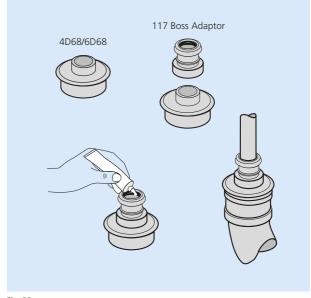


Fig. 28

#### **Further Information**

#### **Further information and assistance**

Terrain products are backed by a comprehensive technical advisory service, available to provide advice and design guidance on all aspects of above and below ground drainage.

#### Technical services include:

- Soil and waste schematics and applicable details
- Specification, product scheduling and estimating
- CAD drawings, including products and application details on disk

Many products are also available in CAD format for ready incorporation into design drawings. To obtain a disk or CD Rom in the appropriate format, simply contact Technical Services.

- On-site advice and problem solving
- Prefabrication and fabrication design service

For prompt assistance, please contact the Polypipe Middle East Technical Services Department:

Tel: +971 (0) 4 807 3000 Fax: +971 (0) 4 880 6681

#### Special component design service

For over 30 years our Fabrication Service has been helping specifiers and contractors overcome problems on-site and at the design stage of projects. We can provide the solution to even the most demanding problems with specials fabricated to order.

#### Terrain standard specials

Created from modifications to standard products to meet frequently occurring design problems. These are identified with an F prefix in the product listing where applicable.

#### Terrain design specials

Products can be manufactured on a one-off or small batch basis to meet the demands of unique installations/ applications. These can be produced to customer specification in virtually any size or shape.

Contact Technical Services for further assistance.

#### **Materials and colours**

Pipe and most fittings are manufactured in terracotta PVC-u. Where other materials are used these are generally PP/PE.

#### **Quality assurance**

Terrain is accredited to BS EN ISO 9001:2000 Quality Management Systems.

#### **Standards compliance**

Terrain underground complies with the appropriate British Standard/European Norm and, where applicable, is Kitemarked to BS EN 1401:1998.

The Inspection Chamber Base (4DI240B) and Raising Piece (4DI235R) meet the requirements of BS 7158:2001 for Plastic Inspection Chambers for drains.

#### **Certifications**

Foamcore pipe is covered by the following British Board of Agrément certificate: 95/3086
Eurodrain (Foamcore) Underground Drainage Pipe
110 and 160mm comply with BS EN 1401 (BS 4660).
EN1401:1998 Underground Drainage.
EN7158:2001 Plastic Inspection Chambers for Drains and Sewers.



#### **Availability**

For details of a wide range of stockists, please contact your local office. Details can be found on the back cover.

### Non UK Basic Design Principals

#### **Pipe Sizes**

The correct sized pipes should be used throughout the installation to ensure an efficient flow through the drainage system.

#### Gradient

Typical gradients for below ground systems are:

110 mm diameter - 1:80 160 mm diameter - 1:1.50

Typical gradients for above ground system are:

32-50 mm diameter - 1:45

82 mm - 160 mm diameter -1:23

#### **Pipe Joints**

All pipe joints should be free from dirt or obstructions. Pipes should be chamfered before inserting into a rubber seal ring joint, or cleaned before solvent-welding.

#### Access

Access to a drainage system should be included wherever there is a change in direction.

#### **Sealed System**

It is important to ensure that the drainage system is completely sealed to prevent leakages.

#### **Bedding & Backfill**

Underground pipework and backfilling of inspection chambers should be carried out as detailed in the Terrain installation guide.

#### **Venting**

All drainage systems require a vent to allow fresh air to be taken into the system to ensure a smooth running to the discharge.

#### **High Temperature Waste**

Where hot water enters the drainage system, a high temperature MuPVC waste should be used.

#### **Expansion**

It is important to allow for expansion in all plastic drainage systems. Push-fit joints should NOT be inserted to the full depth. Solvent weld systems should use expansion joints where required.

#### **Bracketing**

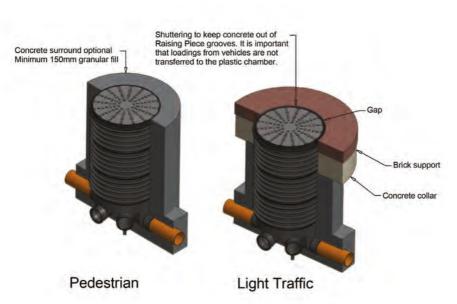
Above ground pipework should be correctly bracketed to hold the system securely in place. Vertically every 2 metres, horizontally every 1 metre. This will also assist expansion control.

#### **Traps**

Each appliance (Shower, Basin etc.) should have its own trap. Connection to a floor gully provides an additional trap to prevent foul odours escaping into living space areas.

#### **Non-Return Valve**

The use of a non-return valve outside the building prevents any external drainage issues backing up into the property.



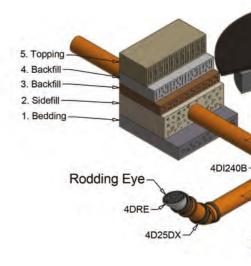
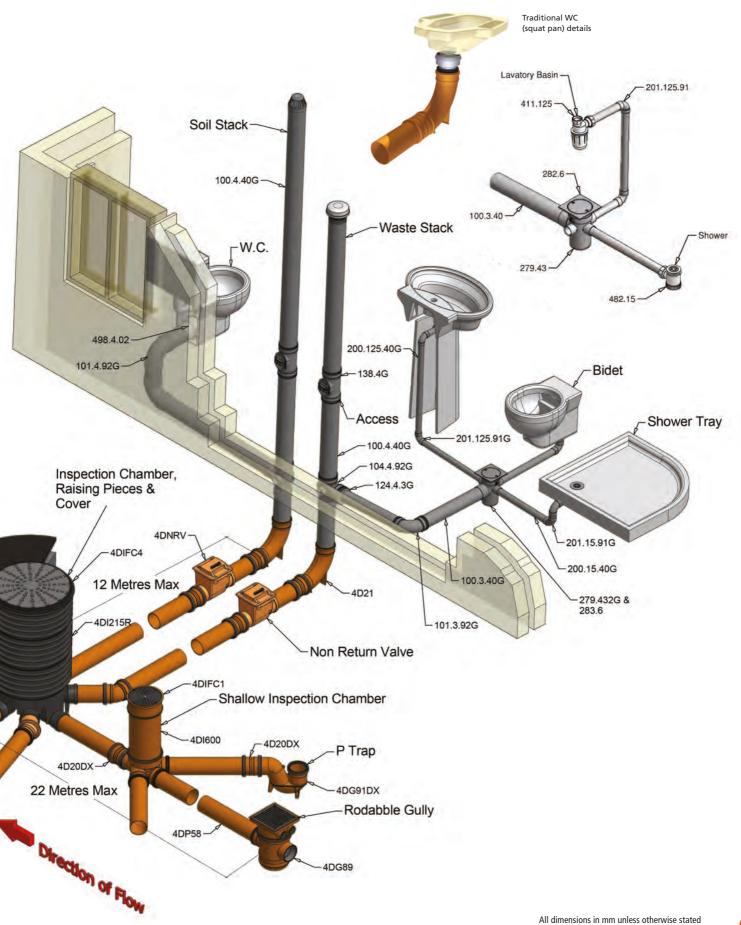


Fig. 29



### Index

Code	Product Description	Page No.
10DP58S	SOLID WALL PIPE SINGLE SOCKET	10
12DP58S	SOLID WALL PIPE SINGLE SOCKET	10
3D20D	COUPLER DOUBLE SOCKET	5
3D23D	SHORT RADIUS BEND DOUBLE SOCKET	5
3D25D	SHORT RADIUS BEND DOUBLE SOCKET	5
3D33D	SINGLE EQUAL JUNCTION	6
3D63	ACCESS CAP	8
3D64	ACCESS CAP	8
3DP3	SOLID WALL PIPE PLAIN ENDED	4
3DP58	SOLID WALL PIPE PLAIN ENDED	4
3DW25	ADAPTOR TO ABOVE GROUND DRAIN	17
43DT	LEVEL INVERT TAPER	5
4D20D	COUPLER DOUBLE SOCKET	5
4D20DSC	SLIP COUPLER	5
4D20DSCX	SLIP COUPLER	9
4D20DX	COUPLER DOUBLE SOCKET - with central stop	9
4D21	REST BEND SINGLE SOCKET	7
4D21D	REST BEND DOUBLE SOCKET	7
4D22	LONG RADIUS BENDS - plain ended	7
4D23	SHORT RADIUS BEND SINGLE SOCKET	5
4D23D	SHORT RADIUS BEND DOUBLE SOCKET	5
4D23DX	SHORT RADIUS BEND DOUBLE SOCKET	9
4D25	SHORT RADIUS BEND SINGLE SOCKET	5
4D25D	SHORT RADIUS BEND DOUBLE SOCKET	5
4D25DX	SHORT RADIUS BEND DOUBLE SOCKET	9
4D27	SHORT RADIUS BEND SINGLE SOCKET	5
4D27D	SHORT RADIUS BEND DOUBLE SOCKET	5
4D28	LONG RADIUS BENDS - plain ended	7
4D29	SHORT RADIUS BEND SINGLE SOCKET	5
4D29D	SHORT RADIUS BEND DOUBLE SOCKET	5
4D30	SINGLE EQUAL JUNCTION SPIGOT OUTLET	6
4D30D	SINGLE EQUAL JUNCTION  SINGLE EQUAL JUNCTION	6
4D30DX	SINGLE EQUAL JUNCTION (all equal sockets)	9
4D33	SINGLE EQUAL JUNCTION SPIGOT OUTLET	6
4D33D	SINGLE EQUAL JUNCTION SINGLE EQUAL JUNCTION	6
4D33DX	SINGLE EQUAL JUNCTION SINGLE EQUAL JUNCTION (all equal sockets)	9
4D63	ACCESS CAP	8
4D64	ACCESS CAP	8
4D65	TEMPORARY SITE CAP	8
4D68	SOCKET PLUG	8
4D69	PIPE END SOCKET	5
		9
4D69	PIPE END SOCKET	17
4D76 4DG80	UNIVERSAL RAINWATER ADAPTOR CIRCULAR GULLY	
		12
4DG81	EXTENSION PIECE SEALED COVER	13
4DG82	SEALED COVER  CIRCULAR GRATING	13
4DG83	CIRCULAR GRATING  ROTTLE GULLY WITH SOLIABE COVER	13
4DG89	BOTTLE GULLY WITH SQUARE COVER	
4DG90	GULLY TRAP	12
4DG91	GULLY 'P' TRAP	12
4DG92	SQUARE HOPPER HEAD	12
4DG92G	SQUARE HOPPER HEAD	13

Code	Product Description	Page No.
4DG92GS	SQUARE SEALED COVER	13
4DG93	RECTANGULAR HOPPER HEAD	12
4DG96	RAISING PIECE	13
4DG97	BOTTLE GULLY WITH ROUND COVER	12
4DI135R	SIDE RISER	15
4DI135S	RISER SEALING RING	15
4DI1702B	EQUAL INSPECTION CHAMBER BASE	15
4DI1704B	EQUAL INSPECTION CHAMBER BASE	15
4DI215R	SIDE RISER	14
4DI215S	RISER SEALING RING	14
4DI240B	EQUAL INSPECTION CHAMBER BASE (460mm diameter)	14
4DI600	SHALLOW INSPECTION CHAMBER	14
4DIFC1	SEALED COVER AND FRAME	14
4DIFC4	COVER AND FRAME	15
4DP3	SOLID WALL PIPE PLAIN ENDED	4
4DP3S	SOLID WALL PIPE SINGLE SOCKET	4
4DP58	SOLID WALL PIPE PLAIN ENDED	4
4DP6S	SOLID WALL PIPE SINGLE SOCKET	4
4DRE	RODDING EYE	8
4DV40	VARIABLE BEND SINGLE SOCKET	7
4DW200	UNIVERSAL RAINWATER ADAPTOR	17
4DW23	ADAPTOR TO ABOVE GROUND DRAIN	17
4DW25	ADAPTOR TO ABOVE GROUND DRAIN	17
4DW3	ADAPTOR TO ABOVE GROUND DRAIN	17
4EUP3	FOAMCORE PIPE PLAIN ENDED	4
4EUP3S	FOAMCORE PIPE SINGLE SOCKET	4
4EUP58	FOAMCORE PIPE PLAIN ENDED	4
4EUP6S	FOAMCORE PIPE SINGLE SOCKET	4
64D30D	SINGLE UNEQUAL JUNCTION	6
64D33	SPIGOT OUTLET	6
64D33D	SINGLE UNEQUAL JUNCTION	6
64D33DX	UNEQUAL SOCKETS	9
64DI240B	UNEQUAL INSPECTION CHAMBER BASE (475mm diameter)	14
64DT	LEVEL INVERT TAPER	5
6D20D	COUPLER DOUBLE SOCKET	5
6D20DSC	SLIP COUPLER	5
6D20DSCX	SLIP COUPLER	9
6D20DX	COUPLER DOUBLE SOCKET - with central stop	9
6D23	SHORT RADIUS BEND SINGLE SOCKET	5
6D23D	SHORT RADIUS BEND DOUBLE SOCKET	5
6D23DX	SHORT RADIUS BEND DOUBLE SOCKET	9
6D25	SHORT RADIUS BEND SINGLE SOCKET	5
6D25D	SHORT RADIUS BEND DOUBLE SOCKET	5
6D25DX	SHORT RADIUS BEND DOUBLE SOCKET	9
6D27	SHORT RADIUS BEND SINGLE SOCKET	5
6D27D	SHORT RADIUS BEND DOUBLE SOCKET	5
6D29	SHORT RADIUS BEND SINGLE SOCKET	5
6D29D	SHORT RADIUS BEND DOUBLE SOCKET	5
6D30D	SINGLE EQUAL JUNCTION	6
6D30DX	SINGLE EQUAL JUNCTION (all equal sockets)	9
6D33	SINGLE EQUAL JUNCTION SPIGOT OUTLET	6
6D33D	SINGLE EQUAL JUNCTION	6

### Index

Code	Product Description	Page No.
6D33DX	SINGLE EQUAL JUNCTION (all equal sockets)	9
6D63	ACCESS CAP	8
6D64	ACCESS CAP	8
6D68	SOCKET PLUG	8
6D69	PIPE END SOCKET	5
6D69	PIPE END SOCKET	9
6DP3	SOLID WALL PIPE PLAIN ENDED	4
6DP58	SOLID WALL PIPE PLAIN ENDED	4
6DP6S	SOLID WALL PIPE SINGLE SOCKET	4
6EUP3S	FOAMCORE PIPE SINGLE SOCKET	4
6EUP58	FOAMCORE PIPE PLAIN ENDED	4
6EUP6S	FOAMCORE PIPE SINGLE SOCKET	4
8DP58S	SOLID WALL PIPE SINGLE SOCKET	10
9100.250SW	TERRAIN ACCESSORIES - LIQUID WELD	16
9100.500SW	TERRAIN ACCESSORIES - LIQUID WELD	16
9101.125CF	TERRAIN ACCESSORIES - CLEANING FLUID	16
9101.250CF	TERRAIN ACCESSORIES - CLEANING FLUID	16
9136.250L	TERRAIN ACCESSORIES - LUBRICANT	16
9136.500L	TERRAIN ACCESSORIES - LUBRICANT	16
UG1001	COUPLER DOUBLE SOCKET	10
UG1004	SHORT RADIUS BEND SINGLE SOCKET	11
UG1004	SINGLE EQUAL JUNCTIONS	11
	SHORT RADIUS BEND SINGLE SOCKET	11
UG1010		
UG1012	SHORT RADIUS BEND SINGLE SOCKET	11
UG1016	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG1017	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG1020	SOCKET PLUG	11
UG1021	LEVEL INVERT TAPER	10
UG1036	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG1068	SHORT RADIUS BEND SINGLE SOCKET	11
UG1200	COUPLER DOUBLE SOCKET	10
UG1201	COUPLER DOUBLE SOCKET	10
UG1204	SHORT RADIUS BEND SINGLE SOCKET	11
UG1206	SINGLE EQUAL JUNCTIONS	11
UG1210	SHORT RADIUS BEND SINGLE SOCKET	11
UG1212	SHORT RADIUS BEND SINGLE SOCKET	11
UG1216	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG1217	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG1218	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG1220	SOCKET PLUG	11
UG1221	LEVEL INVERT TAPER	10
UG1236	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG1268	SHORT RADIUS BEND SINGLE SOCKET	11
UG801	COUPLER DOUBLE SOCKET	10
UG803	SHORT RADIUS BEND DOUBLE SOCKET	10
UG804	SHORT RADIUS BEND SINGLE SOCKET	11
UG805	SINGLE EQUAL JUNCTIONS	11
UG806	SINGLE EQUAL JUNCTIONS	11
UG809	SHORT RADIUS BEND DOUBLE SOCKET	10
UG810	SHORT RADIUS BEND SINGLE SOCKET	11
UG812	SHORT RADIUS BEND SINGLE SOCKET	11
UG820	SOCKET PLUG	11

UG821         LEVEL INVERT TAPER         10           UG831         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           UG835         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           UG836         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           UG837         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           WAC125/165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC125/165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC125/165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC125/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC125/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC140/160         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC140/295         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC140/295         FLEXICON DRAINAGE ADAPTORS (XAC)         18           WAC160/245         FLEXICON DRAI	Code	Product Description	Page No.
UG885         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           UG886         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           UG887         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           XAC125/165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/175         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/2019         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/2025         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/203         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/206         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/207         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/208         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/209	UG821	LEVEL INVERT TAPER	10
UG886         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           UG887         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           XAC115/165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/145         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/150         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/175         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/2025         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/200         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/225         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/226         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/227         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/226 <td< td=""><td>UG831</td><td>SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)</td><td>11</td></td<>	UG831	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
UG837         SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)         11           XACT157165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1257145         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1257156         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1257175         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1257190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125705         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1407100         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1407101         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1402020         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602185         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602206         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602207         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602208         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602206         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190220         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190220         FLEXIC	UG835	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
XAC115/165         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/145         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/160         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/175         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/160         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/201         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/202         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/185         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/203         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/204         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/205         FLEXIC	UG836	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
XAC125/145         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/160         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/175         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/250         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/261         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/262         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/262         FLEXIC	UG837	SINGLE UNEQUAL JUNCTIONS (DOUBLE SOCKET)	11
XAC125/160         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/175         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/160         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC179/251         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC2900         FLEXICON	XAC115/165	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC125/175         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC125/205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/160         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1790/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON DRAI	XAC125/145	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC125/190 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC125/205 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC140/160 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC140/190 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC140/230 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC140/245 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC160/245 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC160/230 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC160/230 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC160/245 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC160/230 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC175/295 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC175/295 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC190/230 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC190/245 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC4000 FLEXICON UNIVERSAL ADAPTORS (XAC) 18  XAC4000 FLEXICON UNIVERSAL ADAPTORS (XAC) 18  XAC600 FLEXICON UNIVERSAL ADAPTORS (XAC) 18  XAC600 FLEXICON UNIVERSAL ADAPTORS (XAC) 18  XAC85/115 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC85/115 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC95/115 FLEXICON DRAINAGE ADAPTORS (XAC) 18  XAC95/115 FLEXICON DRAINAGE ADAPTORS (XAC) 19  XAC191/25 FLEXICON DRAINAGE ADAPTORS (XAC) 19  XAC191/25 FLEXICON DRAINAGE ADAPTORS (XAC) 19  XAC191/25 FLEXICON DRAINAGE ADAPTORS (XAC) 19  XAC195/115 FLEXICON DRAINAGE ADAPTORS (XAC) 19	XAC125/160	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC125205         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140760         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140790         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160226         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160220         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190221         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175795         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190220         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190225         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190226         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC4000         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC6000         FLEXICON UNIVERSAL ADAPTORS	XAC125/175	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC140760         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140790         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160220         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/250         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPT	XAC125/190	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC140/190         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/185         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/250         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC590/15         FLEXICON DRAINA	XAC125/205	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC140230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC140245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160785         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1607230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1607245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1607260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1607280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1607280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1607270         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1757195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1757210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1907230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1907245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1907220         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC80115         FLEXICON DRAINAGE ADA	XAC140/160	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC140245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160185         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1601230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1602260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160220         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1757195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1907230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1907245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1907260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC1907220         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC80115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC80715         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC997115         FLEXICON DRAINAGE ADAP	XAC140/190	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC160/185         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/250         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAIN COU	XAC140/230	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/250         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE A	XAC140/245	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC160/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/95         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR	XAC160/185	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC160/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC9900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)	XAC160/230	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC160/280         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC160/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)	XAC160/245	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC160/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC8901         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         <	XAC160/260	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC175/195         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC175/210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC8900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC9900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC9901         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19 <td>XAC160/280</td> <td>FLEXICON DRAINAGE ADAPTORS (XAC)</td> <td>18</td>	XAC160/280	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC175/210         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)	XAC160/320	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC190/230         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC9901         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR155         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC175/195	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC190/245         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19 <td>XAC175/210</td> <td>FLEXICON DRAINAGE ADAPTORS (XAC)</td> <td>18</td>	XAC175/210	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC190/260         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC190/320         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC190/230	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC190/320       FLEXICON DRAINAGE ADAPTORS (XAC)       18         XAC400       FLEXICON UNIVERSAL ADAPTORS (XAC)       18         XAC600       FLEXICON UNIVERSAL ADAPTORS (XAC)       18         XAC800       FLEXICON UNIVERSAL ADAPTORS (XAC)       18         XAC85/115       FLEXICON DRAINAGE ADAPTORS (XAC)       18         XAC900       FLEXICON DRAINAGE ADAPTORS (XAC)       18         XAC95/115       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR115       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR125       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR150       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR150       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR175       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR200       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR215       FLEXICON DRAIN COUPLINGS (XDR)       19	XAC190/245	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC400         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC600         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC9900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR155         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           X	XAC190/260	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC600       FLEXICON UNIVERSAL ADAPTORS (XAC)       18         XAC800       FLEXICON UNIVERSAL ADAPTORS (XAC)       18         XAC85/115       FLEXICON DRAINAGE ADAPTORS (XAC)       18         XAC900       FLEXICON DRAINAGE ADAPTORS (XAC)       18         XAC95/115       FLEXICON DRAINAGE ADAPTORS (XAC)       18         XDR115       FLEXICON DRAINAGE ADAPTORS (XAC)       18         XDR115       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR125       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR135       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR150       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR165       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR175       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR200       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR215       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR225       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR250       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR275       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR65       FLEXICON DRAIN COUPLINGS (XDR)       19         XDR95       FLEXICON DRAIN COUPLINGS (XDR)       19	XAC190/320	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XAC800         FLEXICON UNIVERSAL ADAPTORS (XAC)         18           XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC400	FLEXICON UNIVERSAL ADAPTORS (XAC)	18
XAC85/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC600	FLEXICON UNIVERSAL ADAPTORS (XAC)	18
XAC900         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR155         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC800	FLEXICON UNIVERSAL ADAPTORS (XAC)	18
XAC95/115         FLEXICON DRAINAGE ADAPTORS (XAC)         18           XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC85/115	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XDR115         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC900	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XDR125         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XAC95/115	FLEXICON DRAINAGE ADAPTORS (XAC)	18
XDR135         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR115	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR150         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR125	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR165         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR135	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR175         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR150	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR180         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR165	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR200         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR175	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR215         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR180	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR225         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR200	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR250         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR275         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR65         FLEXICON DRAIN COUPLINGS (XDR)         19           XDR95         FLEXICON DRAIN COUPLINGS (XDR)         19	XDR215	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR275     FLEXICON DRAIN COUPLINGS (XDR)     19       XDR65     FLEXICON DRAIN COUPLINGS (XDR)     19       XDR95     FLEXICON DRAIN COUPLINGS (XDR)     19	XDR225	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR65     FLEXICON DRAIN COUPLINGS (XDR)     19       XDR95     FLEXICON DRAIN COUPLINGS (XDR)     19	XDR250	FLEXICON DRAIN COUPLINGS (XDR)	19
XDR95 FLEXICON DRAIN COUPLINGS (XDR) 19	XDR275	FLEXICON DRAIN COUPLINGS (XDR)	19
, , ,	XDR65	FLEXICON DRAIN COUPLINGS (XDR)	19
	XDR95	FLEXICON DRAIN COUPLINGS (XDR)	19
XFD700 FLEXICON ACCESSORIES - FLEXIDRIVER 20	XFD700	FLEXICON ACCESSORIES - FLEXIDRIVER	20
XFD800 FLEXICON ACCESSORIES - FLEXIDRIVER 20	XFD800	FLEXICON ACCESSORIES - FLEXIDRIVER	20
XPA45/65 FLEXICON PLUMBING ADAPTORS (XPA) 18	XPA45/65	FLEXICON PLUMBING ADAPTORS (XPA)	18
XPA50/115 FLEXICON PLUMBING ADAPTORS (XPA) 18	XPA50/115	FLEXICON PLUMBING ADAPTORS (XPA)	18
XPA50/95 FLEXICON PLUMBING ADAPTORS (XPA) 18	XPA50/95	FLEXICON PLUMBING ADAPTORS (XPA)	18

### Index

Code	Product Description	Page No.
XPA65/115	FLEXICON PLUMBING ADAPTORS (XPA)	18
XPA65/95	FLEXICON PLUMBING ADAPTORS (XPA)	18
XSB115	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB120	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB125	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB135	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB150	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB165	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB175	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB180	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB200	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB215	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB225	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB250	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB275	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB290	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB310	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB320	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB335	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB345	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB360	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB385	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XSB410	FLEXICON SHEAR BAND STANDARD COUPLINGS (XSB)	19
XST115	FLEXICON END CAPS (XST)	20
XST125	FLEXICON END CAPS (XST)	20
XST135	FLEXICON END CAPS (XST)	20
XST150	FLEXICON END CAPS (XST)	20
XST160	FLEXICON END CAPS (XST)	20
XST180	FLEXICON END CAPS (XST)	20
XST200	FLEXICON END CAPS (XST)	20
XST215	FLEXICON END CAPS (XST)	20
XST32	FLEXICON END CAPS (XST)	20
XST42	FLEXICON END CAPS (XST)	20
XST50	FLEXICON END CAPS (XST)	20
XST65	FLEXICON END CAPS (XST)	20
XST95	FLEXICON END CAPS (XST)	20

### Notes

·
·

Information in this publication must not be reproduced in whole or in part without the permission of Polypipe. The contents are given in good faith and no warranty is given or implied in respect of such information. Polypipe reserve the right to amend this specification without prior notice and all transactions are subject to our standard Conditions of Sale. Polypipe and are registered Trademarks of Polypipe. All Polypipe products are protected by Design Right under CDPA 1988. Copyright 2006 Polypipe. All rights reserved.



### Terrain Underground

#### **Polypipe Qatar**

Polypipe Ltd RTO Office Commercial Bank Plaza Tower

Level 14, West Bay P.O.Box 27111

Doha

Qatar

Tel: +974 (4) 452 8394

Fax: +971 (4) 452 8181

middleeast@polypipe.com

#### Polypipe Middle East

Polypipe Middle East FZE Showroom A2 SR 07 First Al Khail Street Jebel Ali Free Zone P.O.Box 18679

Dubai

United Arab Emirates
Tel: +971 (0)4 807 3000

Fax: +971 (0)4 880 6681

middleeast@polypipe.com

#### Polypipe UK

New Hythe Business Park
College Road
Aylesford
Kent
ME20 7PJ
United Kingdom

Tel: +44 (0) 1622 795 200

Fax: +44 (0) 1622 795 263

