



Terrain Above Ground

PVC-u above ground drainage systems



Terrain Above Ground Drainage Systems

Having pioneered the development of solvent-weld systems, Terrain soil & waste products represent the industry benchmark for quality, installation, flexibility and product innovation backed by the highest levels of customer service. Terrain systems include an extensive range of soil & waste drainage products for commercial, industrial, housing and public sector developments, all built on the strength of our Terrain brand. Systems include solvent-weld and push-fit options for both soil & waste drainage; overflow, WC pan and trap connectors along with a comprehensive range of adaptors and accessories. Products are available in a range of colours.



- Unique products offer unrivalled installation options
- High quality finish, colour to match all systems
- Suitable for all types of commercial and domestic installations
- Extensive technical experience to support and advise on all aspects of design and installation
- Fully accredited product systems

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

Manufacturing Standards



BS 5255:1989 Specification for Thermoplastics Waste Pipe and Fittings

BS 4514:2001 PVC Soil and Ventilation Pipes, Fittings and Accessories

BS EN 1329:2000 Plastic Piping Systems for Soil and Waste Discharge

BS EN 1566:2000 Plastic Piping Systems for Soil and Waste Discharge (Chlorinated)

BS EN 12380 A1 Air Admittance Valve

BS EN 12380 A1 Air Admittance Valve (Pleura System)

BS EN 1366-3 Terrain Firetrap Sleeves and Collars

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

Terrain Above Ground Drainage

	_
100 PVC-u Solvent-Weld	04 - 15
Rainwater Systems	16 - 18
100 Large Diameter	19 - 21
100P PVC-u Push-Fit	22 - 27
200 MuPVC Solvent Weld	28 - 33
300 Polypropylene Push-Fit	34 - 37
400 Traps & Pan Connectors System	38 - 45
500 Waste System Overflow	46 - 48
Accessories/Ancillaries	49 - 50
Terrain Pleura	51
Terrain Firetrap	52
General Principles	53
Sitework Instructions	54 - 63
System Connections	64 - 70
Rainwater Outlets	71 - 75
Design Considerations & Principles	76 - 77
UK Design Principles	78 - 79
Middle East Design Principles	80 - 81
Design Data - Soil & Waste Drainage	82 - 83
Design Data - Rainwater	84 - 85
Fabrication Service	86
Index	87 - 89
Notes	90

Products marked in the product listings are available in CAD form for ready incorporation into design drawings. If you would like a disk or CD ROM in the appropriate format, simply contact the Technical Advisory Service.

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.

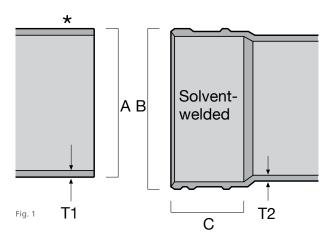
For further information, please refer to www.polypipe.com

100 Soil System - PVC-u (solvent-weld)

82, 110 and 160mm PVC-u soil pipes and fittings:

 Wide range of bends, branches and access fittings to meet all application requirements

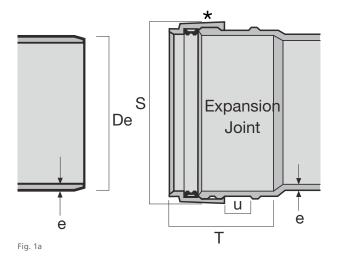




82, 110 and	160mm pipe a	nd fittings (Fi	g.1)	
Α	В	С	T1	T2
82	95	51	3.2	3.2
110	122	51	3.2	3.2
160	175	76	3.3	3.5

The pipe and socket illustrated here are for solvent weld jointing. The conversion to seal ring expansion joint is made by adding a 109 seal ring adaptor to the socket.

* Some Terrain fittings feature a groove here, as shown on the underside.



82, 110 ar	82, 110 and 160mm pipe and fittings (Fig.1a)								
De	S	e (min pipe)	e (min body of fitting)	U	T				
82	102	3.2	3.2	18	72				
110	127	3.2	3.2	19	72				
160	184	3.3	3.5	25	101				

The 109 seal ring adaptor has been drawn in position on the socket of the 100 system fitting to illustrate its application and dimension S. The dimension U is to accommodate all Terrain holderbats.

* Some Terrain fittings feature a groove here, as shown on the underside.

	Size (mm)	L	T (min)	Colour	Code				
SOI	SOIL PIPE - PLAIN ENDED								
\$	82	3m	3.2	GBW	100.3.30				
\$	82	4m	3.2	GBW	100.3.40				
\$	110	3m	3.2	GBWR	100.4.30				
\$	110	4m	3.2	GBWR	100.4.40				
\$	160	3m	3.3	G	100.6.30				
\\$	160	3m	3.3	G	100.6.40				

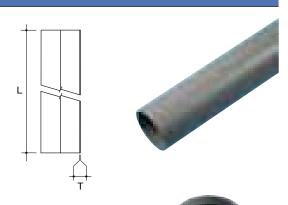
Size (mm)	Α	Colour	Code
RING SEAL ADAPTOR -	converts any Terrain s	olvent socket to a ring seal	expansion socket
82	21	GB [109.3
110	21	GBWR	109.4
160	26	G [109.6

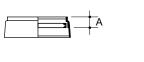
	Size (mm)	L	Z	Colour	Code
STE	RAIGHT COUPL	ER DOUBLE S	OCKET - double	solvent socket	
8	82	92	3	GBW	110.3
\$	110	102	3	GBWR	110.4
\$	160	160	8	G	110.6

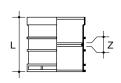
	Size (mm)	L	Z	Colour	Code
EXPA	ANSION COU	PLER - to allow	expansion in long	ger pipe runs	
♥	82	113	3	GBW	111.3
♥	110	123	3	GBW	111.4
\\$	160	210	8	G	111.6

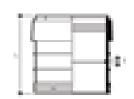
Size (mm)		L	Colour	Code
SLIP	COUPLER DO	UBLE SOCKET		
\$	82	134	G	☐ 111.S.3
\$	110	144	GB	□ 111.S.4
\$	160	210	G	☐ 111.S.6

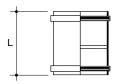
	Size (mm)	Angle°	Z1	Z2	Colour	Code				
SW	SWEPT BEND DOUBLE SOCKET									
\$	82	92½	102	98	GBW	101.3.92				
\$	110	921/2	75	83	GBWR	1 01.4.92				
\$	160	921/2	178	184	G	101.6.92				
\$	110	104	80	76	G	101.4.104				
\$	110	1121/2	65	63	GB	101.4.112				
\$	82	135	25	25	GBW	101.3.135				
\$	110	135	21	30	GBWR	1 01.4.135				
\$	160	135	44	44	G	1 01.6.135				

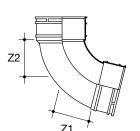














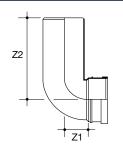






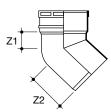
Terrain Soil System - 100 Solvent-Weld





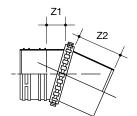
S	ize (mm)	Angle°	Z1	Z2 (max)	Z2 (min)	Colour	Code
SPIC	OT SOCK	ET BEND	5 - long ta	il			
\$	82	921/2	41	152	97	G	107.3.92
\$	110	921/2	57	197	110	GBW	107.4.92





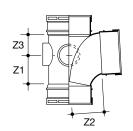
S	ize (mm)	Angle°	Z1	Z2 (max) Z2 (min)	Colour	Code
SPIG	от ѕоск	ET BEND	S			
\$	110	135	42	85	GBW	107.4.135
\$	160	135	60	130	G	107P.6.135

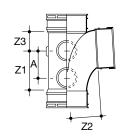




	Size (mm)	Z1	Z2	Colour	Code
VAR	RIABLE BEND S	SPIGOT/SOCK	KET - adjustable 0 -	25°	
\$	110	0 - 25	45	G	107.4.025
Doub	ole spigot				
8	110	0 - 25	45	G	101.4.025







	Size (mm) Angle°	Z1	Z2	Z3	Α	Colour		Code			
	SINGLE EQUAL BRANCH TRIPLE SOCKET - connect to boss horns using 117 boss adaptors (see page 21)											
\$	82	921/2	70	83	35		GBW		104.3.92			
\$	82	135	19	108	102		GB		104.3.135			
\$	110	921/2	82	82	54		GBWR		104.4.92			
\$	110	921/2	101	96	50	74	GBW		104.4.924			
\$	160	921/2	184	178	160		G		104.6.92			
With	With boss connections											
							2 boss ho	rns	104.3.92			

3 boss horns

4 boss horns

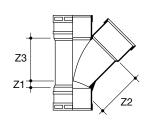
6 boss horns

104.4.92

104.4.924

104.6.92





9	Size (mm)	Angle°	Z 1	Z2	Z3	Colour	Code
SIN	GLE EQUA	L BRANCI	H - no wa	ste boss con	nections		
	110	104	77	74	72	G	104.4.104
\$	110	135	25	137	137	GBW	104.4.135
\$	160	135	53	198	198*	G	104.6.135

^{*}Push-fit only

Size	(mm)	Angle°	Α	Z1	Z2	Z3	Colour	Code		
SINGLE BRANCH SPIGOT OUTLET - with boss connections - 4 boss horns										
\$	110	921/2	74	103	96	50	GB	104.104.92		

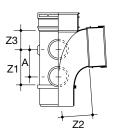
Size	(mm)	Angle°	Α	В	Z1	Z2	Z3	Colour	Code	
SIN	SINGLE EQUAL BRANCH VARIABLE BOSS - Spigot outlet, 2 boss horns, 2 waste sockets									
\$	110	921/2	142	140	91	83	59	G	104.412.92	

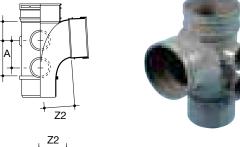
Size	(mm)	Angle°	Α	В	Z1	Z2	Z3	Colour		Code	
SIN	SINGLE EQUAL BRANCH VARIABLE BOSS - Socket outlet										
\$	110	921/2	142	140	91	83	59	G		104.422.92	

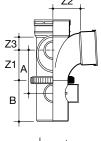
Size (mm)	Angle°	Z1	Z2	Z3	Colour		Code			
SINGLE UI	SINGLE UNEQUAL BRANCH TRIPLE SOCKET - 2 boss horns									
♥ 160/110	921/2	59	87	62	G		104.64.92			

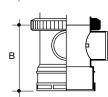
Size (mm)	Angle°	Z1	Z2	Z3	Colour	Code				
SINGLE UNEQUAL BRANCH TRIPLE SOCKET - No waste boss connections										
\$ 160/110	135	70	165	164	G	104.64.135				

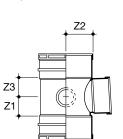
Size (mm)	Angle°	Z1	Z2	Z3	Colour	Code				
CORNER BRANCH TRIPLE SOCKET - 1 boss horn										
110	921/2	94	83	59	G	106.490.92				
160	921/2	196	172	135	G	106.690.92				



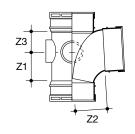










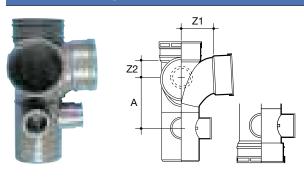








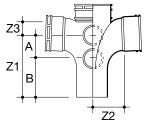


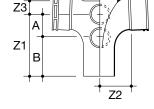


Size (mm)	Angle°	Α	Z1	Z2	Colour		Code			
CORNER BOSS BRANCH - spigot outlet - 1 boss horn, 2 waste sockets										
110	92½	120	83	59	G		106.490.12			

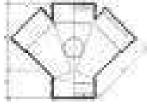
9	Size (mm)	Angle°	Α	Z1	Z2	Colour	Code					
COF	CORNER BOSS BRANCH - socket outlet											
	110	92½	120	83	59	G	106.490.22					



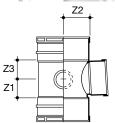




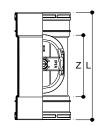




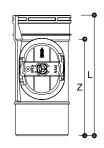












Size	(mm)	Angle°	Α	В	Z1	Z2	Z3	Colour		Code		
DO	DOUBLE BRANCH - spigot outlet, 4 boss horns											
\$	110	921/2	75	128	203	96	50	G		106.104.92		

Size	(mm)	Angle°	Α	В	Z1	Z2	Z3	Colour		Code		
DO	DOUBLE BRANCH - socket outlet, 4 boss horns											
\$	110	921/2	74	-	138	95	50	G		106.4.92		

Size (mm)	Angle°	Α	В	Z1	Z2	Z3	Colour	Code
DOUBLE	BRANCH -	no bos	sses					
110	135	-	-	25	137	137	G	<u></u>
160	135	-	-	196	172	135	G	106.6.135

:	Size (mm)	Angle°	Z1	Z2	Z3	Colour	Code
DO	UBLE UNE	QUAL BRA	ANCH - 2	boss horns			
\\$	160/110	92½	59	87	62	G	106.64.92

Size (mm)	L	Z	Colour	Code
ACCESS PIPE DO	UBLE SOCKET			
110	216	115	GBWR [138.4
160	396	230	G8WR	138.6

	Size (mm)	L	Z	Colour	Code
4	ACCESS PIPE S	SINGLE SOCKET			
6	7 110	216	166	GB	139.4

	Size (mm)	Α	В	Z	Colour	Code
ACC	ESS PIPE CO	NNECTOR	- 2 boss ho	rns		
\$	82	41	39	120	GBW	137.3
\$	110	41	35	149	GBW	137.4

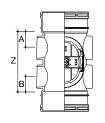
	Size (mm)	Angle°	Z1	Z2	Colour	Code
ACC	ESS BEND D	OUBLE SO	CKET			
\$	110	92½	102	98	GBW	103.4.92

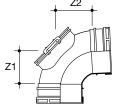
	Size (mm)	Angle°	Z1	Z2	Z3	Colour	Code
SING	LE ACCESS	BRANCH	TRIP	LE SOCK	(ET - 4 l	ooss horns	
\$	110	921/2	99	96	50	GBW	105.4.92

	Size (mm)	L	Hole Saw Ø	Colour	Code
ACC	ESS DOOR				
\$	82	114	48	G	135.3
\$	110	152	73	GB	135.4
8	160	152	73	G	135.6

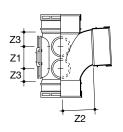
Size (mm)	Α	Z1	Z2	Colour	Code
ACCESS CAP					
82	83	16	32	GW	136.3
110	97	21	46	GBWR	136.4
160	122	22	42	G	136.6

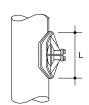
A	Colour	Code
ACCESS DOOR WITH TEST NIPPLE		
127	GBWR	6592/DVW

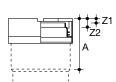


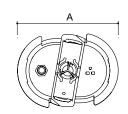














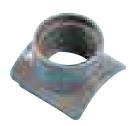


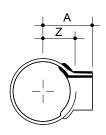












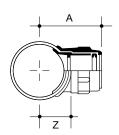
Size (mm)	Α	Z	Hole Saw Ø	Colour	Code
TWO PART WAS	TE BOSS	SOLVE	NT SOCKET		
110/32	79	53	48	G	112.4.125
82/40	69	39	57	G	112.3.15
110/40	82	53	57	G	112.4.15
110/50	86	53	70	GW	112.4.2
160/50	110	77	70	G	112.6.2





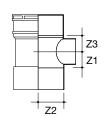
:	Size (mm)	L	Colour	Code
SOCK	(ET PLUG			
\$	110	69	GBW	130.4
\$	160	92	G	130.6





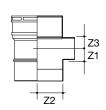
	Size (mm)	A	Z	Hole Saw Ø	Colour	Code
SEL	F LOCKING B	OSS SEA	L RING	SOCKET		
\$	110/32	111	60	60	GW	122.4.125
\$	110/40	111	60	64	GB	122.4.15
\$	110/50	119	60	75	GBW	122.4.2





	Size (mm)	Z1	Z2	Z3	Colour	Code
SIN	GLE BOSSED	PIPE CON	NECTOR I	OOUBLE S	OCKET	
\$	110/32	30	56	31	GBWR	120.4.125
\$	110/40	30	56	31	GBWR	120.4.15
\$	110/50	30	59	31	GBW	123.4





	Size (mm)	Z1	Z2	Z3	Colour	Code
SIN	GLE BOSSED	PIPE CON	NECTOR S	SPIGOT - f	or 40mm waste pi	pe
\$	110/40	28	56	27	GR	120.412.15

Terrain Soil System - 100 Solvent-Weld

Size (mm)	Z1	Z2	Z3	Colour	Code
UBLE BOSSED nm with adaptor)		NNECTOR	DOUBLE	SOCKET - for 50	mm waste pipes
\$ 82/50	50	38	65	GB	120.3.2

2 x 50mm waste sockets, 2 blanking plugs.

	Size (mm)	Z1	Z2	Z3	Colour		Code			
TRIP	TRIPLE BOSSED PIPE CONNECTOR DOUBLE SOCKET									
₩	110/40	30	56	30	GB		121.4.15			

Size (mm)	Z1	Z2	Z3	Z4	Z 5	Colour	Code		
FOUR-WAY BOSS PIPE DOUBLE SOLVENT SOCKET									
110	44	40	56	55	59	G	120.4.2		

2 boss horns, 2 waste sockets.

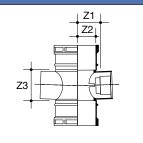
Size (mm)	Z 1	Z2	Z3	Z4	Z 5	Colour	Code
FOUR-WAY BOS	S PIPE	DOUI	BLE SO	OLVEN	IT SOC	KET/SPIGOT	
110	44	40	56	55	59	G	120.412.2

2 boss horns, 2 waste sockets.

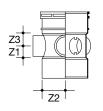
Size (mm)	L1	L2	L3	L4	Z1	Colour	Code		
UNIVERSAL SOIL MANIFOLD - for solvent waste connections									
110	228	189	199	217	105	G	119.412.15		

For connection of BS 5254/BS 5255 40mm waste pipes at floor level. Incorporates 4 inlets to accept 40mm waste pipes without need for adaptors. Use with Swivel Elbow or Swept Bend. For pushfit waste connections see page 21.

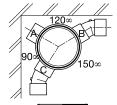
	Size (mm)	А	Z	Colour	Code
SOC	KET REDUCE	R - for solvent co	nnections		
\$	82/50	11	3	GW	124.3.2
\$	110/50	24	3	GBW	124.4.2
8	110/82	11	3	GBW	124.4.3
\$	160/110	22	25	GW	124.6.4

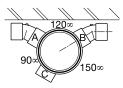


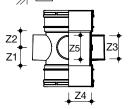




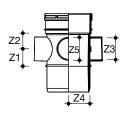




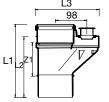






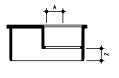






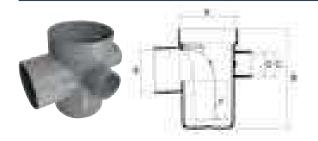








Terrain Soil System - 100 Solvent-Weld

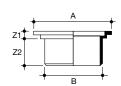


Size (mm)	Α	В	С	D	E	F	Colour	Code
							shower areas) wi vash down areas	th 3 sockets to
110/82	110	169	51	43	82	50	GT	281.43
160/110	160	169	51	43	110	50	GT	281.64
110/82	110	194	64	56	82	75	GT	279.432*

*2" Inlets only. Refer to page 31 for socket reducers if required

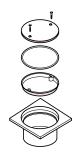
 $Seal\ depth: 50-75 mm.\ Cleaning\ access\ via\ removable\ baffle\ with\ integral\ gasket\ to\ maintain\ airtight\ seal.$





Size (mm)	Α	В	Z 1	Z2	Colour	Code
FLOOR GULLY IN areas). Comprises o						or (e.g. in shower
110 PVC	50 x 150	110	14	48	GW	282.6
110 SS	50 x 150	110	14	48	Self	283.6





Size (mm)	Colour	Code
SEALED GULLY RAISING PIECE		
110	GW	284.6





Size (mm)	Colour	Code
SEALED GULLY RAISING PIECE		
110	Self [285.6

Terrain Soil System - 100 Solvent-Weld

Size (mm)	Α	В	C	Colour	Code
THERMAL MOVE	MENT LIN	/IITER			
82	100	129	154	Self	190.3
110	100	158	178	Self	190.4
160	100	232	260	Self	190.6

Size (mm)	Α	В	С	Colour	Code
INTERMEDIATE S	UPPORT B	RACKET - to	support hor	izontal pipew	ork
82	100	129	154	Self	191.3
110	100	158	178	Self	191.4
160	100	232	260	Self	191.6

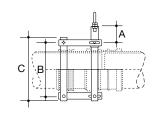
Size (mm)	Α	В	С	D	Colour	Code
TWO-PIECE PIPE	BRACKE	T - galvan	ised steel			
82	140	114	76	124	Self	140.3
110	175	147	89	152	Self	140.4
160	216	196	114	197	Self	140.6

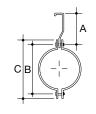
	Size (mm)	Α	В	С	D	Colour	Code
ON	E-PIECE PIPE	BRACKE	T				
\$	82	132	110	76	117	GBW	143.3
\$	110	164	141	90	155	GBWR	143.4

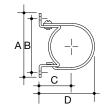
	Size (mm)	Α	В	C (max)	C (min)	Colour	Code
AD.	JUSTABLE PIPI	E BRACK	ET PLAS	STIC-COA	ΓED		
\$	110	99	64	108	80	В	144.4

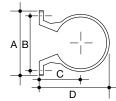
Both have self coloured backplates.

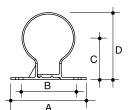
S	ize (mm)	Α	В	C	Colour	Code
PIPE B	RACKET GAL	VANISED I	DRIVE-IN			
	110	178	152	59	Self	142.4

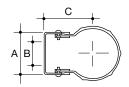


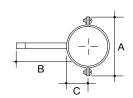




















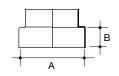






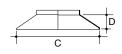
Terrain Soil System - 100 Solvent-Weld





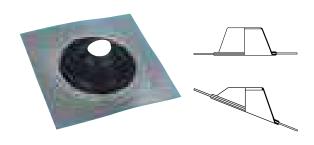
Size (n	nm) A	В	Colour	Code
WEATHERII	NG APRON - for I	ead slates		
82	102	38	GB	= 131.3
110	128	48	GBWR	= 131.4
160	179	51	G	131.6





Size (mm)	С	D	Colour	Code
WEATHERING APP	RON - for aspha	lt upstand		
82	204	59	G	131.3.200
110	203	46	G	131.4.200

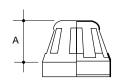
Makes weathertight cover between soil pipe and lead slate at roof level.

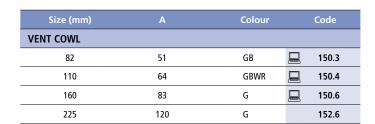


Size (mm)	Plate Size	Colour	Code
WEATHERING SLATES	5 - for flat roof		
82 to 110	406 x 406	Alu/B	149.16.00
WEATHERING SLATES	5 - for sloping roof (min30°)		
82 to 110	406 x 406	Alu/B	49.18.22
WEATHERING SLATES	5 - for sloping roof (min 17°)	
82 to 110	406 x 406	Alu/B	149.24.22

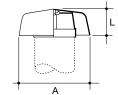
Makes weathertight cover between soil pipe and lead slate at roof level. Available for flat or pitched roof. Colours: Base - Aluminium, Cone - Black.





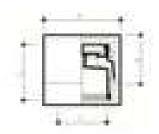






Size (mm)	А	L	Colour	Code
DUCT COWL - Stops	rainwater from	entering ventilati	on ducts	
110	205	80	GBR	 152.4
160	225	120	G	152.6





	Size (mm)	Α	В	L	С	Colour	Code
AUT	OMATIC AIR	ADMIT	TANCE	VALVE			
	110	171	107	121	110	W	<u></u>

 $\label{eq:NOTE:Not} \mbox{NOTE: Not to be used with Terrain Pleura alternative ventilation system.}$

Terrain Soil System - 100 Solvent-Weld

	e on Stack ize (mm)	Α [†]	Ζ [†]	Hole Saw Ø	Colour	Code
STR	AIGHT BOSS	ADAPTO	R RINC	SEAL SOCKET	- for waste pip	e
\$	82 - 160	107	61	51	GBW	117.125
\$	82 - 160	107	61	51	GBWR	117.15
\$	82 - 160	107	61	51	GBW	117.2

Use on Stack Size (mm)		А	Z1	Z2	Hole Saw Ø	Colour	Code
BOS	S ADAPTOR	BEND	SOL	/ENT	SOCKET		
\$	82 - 160	106	82	22	51	GBW	117.15.90
\$	82 - 160	120	89	30	51	GBW	117.2.90
8	82 - 160	-	80	11	51	GBW	117.2.150

Size (mm)	L	Colour	Code		
ADAPTOR TO UNDERGROUND DRAIN - push fit into bore of underground pipe					
82/110	54	В	4DW3		

NOTE: As a Terrain Underground product different discount structure applies.

Size (mm)	Α	В	Z1	Colour	Code
POST FORMED S	OCKET				
82	60	98	240	G	126.3.12
110	64	127	236	G	126.4.12

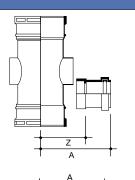
NOTE: To be used with 9120 and 9119B.

Size (mm)	Z1	Colour	Code
ADAPTOR SADDLES - f			
110/40	29	GR	115P.4

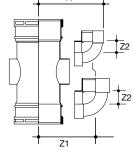
Used with 117 Waste Adaptors to enable direct connection of 32mm and 40mm waste pipe to soil pipe.

	Size (mm)	Α	В	С	Z	Colour	Code
PVC	C-U CAULKING	G BUSH					
8	110	133	124	63	67	G	132.4

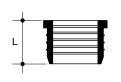
To connect soil pipe to sockets of other material. Solid caulked into sockets.





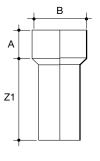




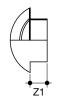




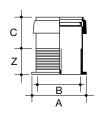














Terrain Rainwater System



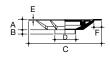
A comprehensive range of rainwater outlets designed to work in conjunction with the Terrain Soil & Waste pipes and fittings.

Note: Please refer to the Terrain Rainwater brochure for full details of guttering and downpipe ranges.

Terrain Rainwater Systems

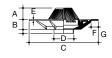
Terrain Roof Outlets

Size (m	n) <i>A</i>	А В	C	D	E			Code
FLAT ROC Suitable for			i) grey o	nly -To d	Irain surf	ace water f	from flat	roofs
82	2 6	7 25	496	89	6	43		2170.3
11	0 5	8 25	406	117	6	43		2170.4



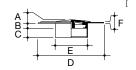


Size (mm)	Α	В	C	D	Е			Code
DOMED ROOF Suitable for most			RGE) gi	rey onl	y -To d	rain sur	face wat	ter from flat roofs
82	67	25	406	89	6	43	76	2171.3
110	58	25	406	117	6	43	76	2171.4



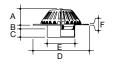


Size (mm)	Α	В	C	D	E	F	Code
FLAT ROOF OU porches, garages a	TLET (S	MALL I balconie	DIAME s. Suitab	TER) Gro le for min	ey only eral felt	' -To dra or single	in surface water from layer plastic roofs
50	6	16	25	178	61	3	2180.2
82	6	16	25	178	87	3	2180.3





Size (mm)	Α	В	С	D	E	F	Code
DOMED ROOF porches, garages a							
50	48	16	25	178	61	3	2181.2
82	48	16	25	178	87	3	2181.3



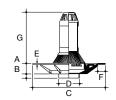


Size (mm)	Α	В	С	D	E	F	G	Code
INVERTED ROOF OUTLET grey only -To allow for drainage from two levels as required with inverted roof construction								
110	60	25	406	117	6	43	260	2171.4A

	E
A B	F
_	С



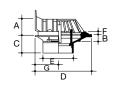
Size (mm)	A	В	С	D	E	F	G	Code		
INVERTED ROOF OUTLET grey only -Special vented type for combined systems Suitable for most roof finishes										
110	58	25	406	117	6	43	371	2174.44		





Balcony Outlets



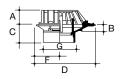


BALCONY OUTLET grey only -For screed-finished balconies Connects to 82mm round downpipe can be reduced via socket Adaptors – 2173.3.25 for 68mm round pipe

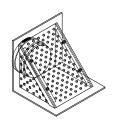
2273.3.23 for 62mm round pipe
 When used singly or at top of multi-storey building, use 9995.3 Blanking Cap
 *Min size hole for roof slab

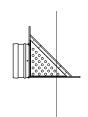
2172.3 48 170 94





Size (mm) A B C D E* F G									Code		
BALCONY OUTLET grey only -For asphalt-finished balconies Details as 2172.3 *Min size hole for roof slab											
82	48	27	59	170	94	13	68		2174.3		





Size (mm)	Colour	Code
TWO WAY BALCONY OUTLET		
82	G	
100	G	

Available on request









	Colour	Code
CAP FOR BALCONY OUTLET -For use with 2173.3.25 at top of multi-storey building	nd 2273.23 wh	en used singly o
	G	9995.3
	Colour	Code
SPARE GRID FOR BALCONY OUTLET -for 2172		
	G	9990
	Colour	Code
SPARE GRID FOR FLAT ROOF OUTLET -for 2170		
	G	9981
	Colour	Code
SPARE GRID FOR DOMED ROOF OUTLET -for 2171		
	G	9980

100 Large Diameter

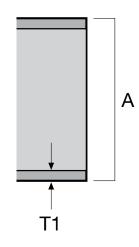
100 Large Diameter PVC-u



200 and 250mm PVC-u soil pipe and fittings:

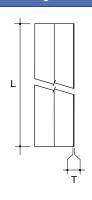
- Wide range of bends, branches and access fittings
- Manufactured in accordance with BS EN 1329

200 and 250mm PVC-u soil pipe and fittings							
A	T1						
200mm	4.9mm						
250mm	6.2mm						



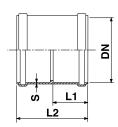
Terrain Large Diameter Soil System - 100 / 100P





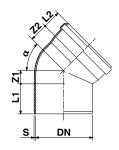
Size (mm)	L	Colour	Code
SOIL PIPE - Plain ended pip	pe		
200	4m	G	100.8.40
250	4m	G	100.10.40





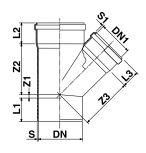
DN	S	L1	L2	Colour	Code							
STRAIGHT COUPLER - All Socket												
200	4.4	106	217	G	110P.8							
250	5.5	123	254	G	110P.10							





DN	Angle°	S	Z1	Z2	L1	L2	Colour	Code						
SPIGOT SO	SPIGOT SOCKET BEND													
200	135	4.9	46	64	100	84	G	107P.8.135						
250	135	6.2	58	79	125	96	G	107P.10.135						
200	92	4.9	105	122	100	85	G	107P.8.92						
250	92	6.2	132	154	136	103	G	107P.10.92						



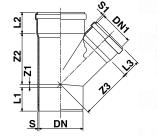


DN	DN1	S	S1	Z1	Z2	Z3	L1	L2	L3	Colour	Code		
AL	ALL SOCKET BRANCH EQUAL												
200	200	4.9	-	45	256	256	100	81	81	G	104P.8.135		
250	250	6.2	-	57	311	311	134	101	101	G	104P.10.135		

100 Large Diameter

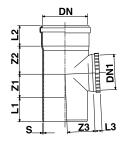
Terrain Large Diameter Soil System - 100 / 100P

DN	DNT	5	51	21	22	23		LZ	L3	Colour	Code		
SINGLE BRANCH SPIGOT OUTLET UNEQUAL													
200	110	4.9	3.2	17	191	200	100	86	56	G	104P.84.135		
200	160	4.9	4.0	18	228	232	100	86	74	G	104P.86.135		
250	160	6.2	4.0	3	250	261	131	103	74	G	104P.106.135		
250	200	6.2	4.9	24	275	280	134	103	86	G	104P.108.135		



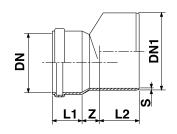


DN	DN1	S	Z1	Z2	Z3	L1	L2	L3	Colour	Code		
ACESS PIPE AND COVER												
200	200	4.9	105	119	119	100	86	28	G	139P.8		
250	250	6.2	120	152	152	135	101	70	G	139P.10		





DN	S	Z	L1	L2	Colour	Code
REDUCERS						
200/110	4.6	40	60	59	G	124P.8.4
250/110	6.1	7	56	90	G	124P.10.4
200/160	4.9	39	74	100	G	124P.8.6
250/160	6.2	66	73	125	G	124P.10.6
250/200	6.2	39	96	134	G	124P.10.8





SPECIAL FITTINGS AVAILABLE UPON REQUEST

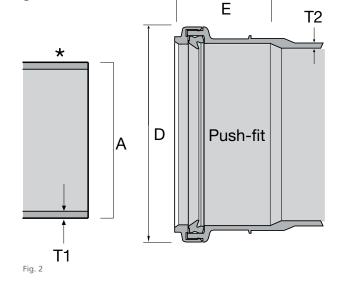


100P Soil System - PVC-u (Push-Fit)





82, 110 and 160mm pipe and fittings (Fig.2)										
Α	D	E	T1	T2						
82	100	50	3.2	3.2						
110	132	58	3.4	3.4						
160	189	70	4.1	4.1						



^{*} Some Terrain fittings feature a groove here, as shown on the underside.

100 Push-Fit

Terrain Soil System - 100 Push-Fit

	Size (mm)	L1	T (min)	Colour	Code								
SOI	SOIL PIPE - single socket ended												
\$	82	3m	3.2	G	100P.3.30								
\$	82	4m	3.2	G	100P.3.40								
\$	110	3m	3.2	GBW	100P.4.30								
\$	110	4m	3.2	GBW	100P.4.40								
\$	160	3m	3.3	G	100P.6.30								
ℽ	160	3m	3.3	G	100P.6.40								

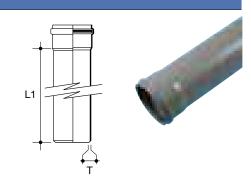
	Size (mm)	L	Colour	Code
SLIP	COUPLER DO	OUBLE SOCKET		
\$	82	134	G	111.S.3
\$	110	144	GB	111.S.4
\$	160	210	G	111.S.6

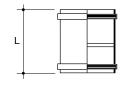
	Size (mm)	L	Z	Colour	Code				
STRAIGHT COUPLER DOUBLE SOCKET - with central stop									
\$	82	103	6	G	110P.3				
\$	110	129	6	GBWR	110P.4				
\$	160	188	10	G	110P.6				

	Size (mm)	L1	L2	Z	Colour	ır Code							
PIP	PIPE END SOCKET/SPIGOT												
	82	91	39	4	G	111P.3							
\$	110	107	48	3	GBW	111P.4							

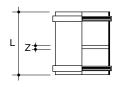
	Size (mm)	Angle°	L1	Z1	Z2	Colour	Code
SW	EPT BEND SI						
\$	82	921/2	149	109	161	G	101P.3.92
\$	110	921/2	142	85	145	GBW	101P.4.92
\$	160	921/2	215	135	215	G	101P.6.92
\$	110	1121/2	152	104	184	G	101P.4.112
\$	82	135	76	36	89	G	107P.3.135
\$	110	135	89	42	119	GBW	107P.4.135
\$	160	135	140	60	130	G	107P.6.135

	Size (mm)	Angle°	L1	Z1	Z2	Colour	Code				
TIGHT RADIUS BEND SPIGOT/SOCKET											
\$	110	921/2	113	65	197	G	107P.4.92				

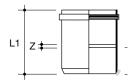




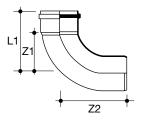


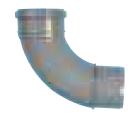


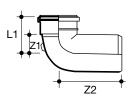






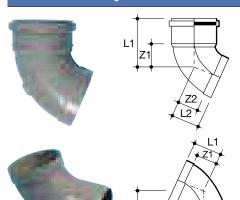








Terrain Soil System - 100 Push-Fit

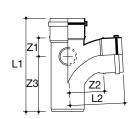


Z2

Size (mm) I			L2	Z1	Z2	Colour	Code
OFFS	SET BEND - to	ор					
\	110	119	73	71	54	GB	101P.4T.112

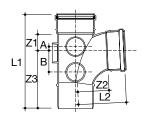
	Size (mm) L1		Z1 Z2		Colour	Code						
OFFS	OFFSET BEND - bottom											
\$	110	73	54	127	GB	101P.4B.112						





Size	(mm)	Angle°	L1	L1	Z1	Z2	Z3	Colour	Code		
SIN	SINGLE BRANCH SPIGOT OUTLET - with spigot bosses, 2 boss horns										
\$	82	92½	225	125	54	85	131	G	104P.3.92		

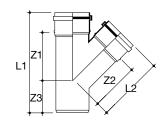




Size	(mm)	Angle	L1	L1	Z1	Z2	Z3	Α	В	Colour	Code
SIN	IGLE E	RANC	H SP	IGO	ι οι	ITLE	Г - wi	th sp	igot b	osses, 5 boss horr	ns
	110	921/2	278	152	58	96	164	19	57	GBW	104P.4.92
♥	160	921/2	440	242	90	155	260			G	104P.6.92

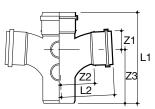
SINGLE	ns							
110	1121/2	349	165	95	95	184	G	104P.4.112





Size	(mm)	Angle°	L1	L1	Z1	Z2	Z3	Colour	Code
SINGLE EQUAL BRANCH PLAIN - no boss connections									
\$	110	135	328	215	168	168	113	G	104P.4.135





Size (mm)	Angle°	L1	L1	Z1	Z2	Z3	Colour	Code	
DOUBLE EQUAL BRANCH SPIGOT OUTLET - 4 boss connections									
110	92½	287	172	66	124	173	GB	106P.4.92	

100 Push-Fit

Terrain Soil System - 100 Push-Fit

	Size (mm)	L1	L2	Z1	Colour	Code			
ACC	ACCESS PIPE AND COVER SINGLE SOCKET								
\$	82	193	97	153	G	139P.3			

	Size (mm)	L1	L2	Z1	Colour	Code				
ACC	ACCESS PIPE AND COVER SINGLE SOCKET									
\\$	110	222	114	175	GB	139P.4				

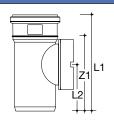
	Size (mm)	L1	L2	Z1	Colour	Code			
ACCESS PIPE AND COVER SINGLE SOCKET									
Acces	Access door aperture size: 172 x 130mm diameter - secured by 2 scews								
\	160	366	198	305	G	139P.6			

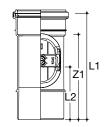
	Size (mm)	Angle°	L1	L2	Z1	Z2	Colour	Code	
	ACCESS BEND SINGLE SOCKET Access door aperture size: 110 x 80mm diameter - secured by locking mechanism (use self tapping screw for anti-vandal locking)								
\\$	110	921/2	41	69	91	157	GB	103P.4.92	

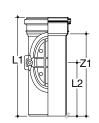
	Size (mm)	L1	L2	Z1	Z2	Z3	Colour	Code	
ACCESS BEND SINGLE EQUAL BRANCH SINGLE OUTLET - with waste bosses, 4 boss horns. Access door aperture size: 114 x 80mm diameter - secured by locking mechanism (use self tapping screw for anti-vandal locking)									
8	110	136	74	87	105	172	G	105P.4.92	

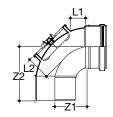
A	Colour	Code					
ACCESS DOOR WITH TEST NIPPLE - standard oval access door with test nipple for manometer connection							
127	GBWR	6592/DVW					

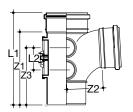
Size (mm)	А	Z1	Z2	Colour	Code			
ACCESS PIPE AND COVER SINGLE SOCKET Access door aperture size: 172 x 130mm diameter - secured by 2 scews								
82	81	26	13	G	136P.3			
110	102	34	10	GBW	136P.4			
160	134	34	10	G	136P.6			

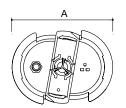


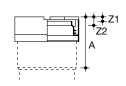






















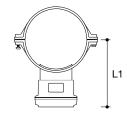




Terrain Soil System - 100 Push-Fit

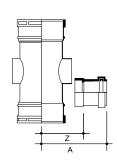
NEW - Now allows back-to-back dual connection of similar and/or dissimilar pipe diameters.





Size (mm)	L1	Hole Saw Ø	Colour	Code						
STRAP-ON BOSS - for waste pipe										
110/32	116	60 (part no. 9105.237)	GBW	112P.4.125						
110/40	116	60 (part no. 9105.237)	GBW	112P.4.15						
110/50	120	60 (part no. 9105.237)	GBW	112P.4.2						



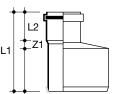


	e on Stack ize (mm)	Α [†]	Z†	Hole Saw Ø	Colour	Code					
BOS	BOSS ADAPTORS STRAIGHT - for waste pipe										
\$	82 - 160	107	61	51	GBW	117.125					
\$	82 - 160	107	61	51	GBWR	117.15					
\$	82 - 160	107	61	51	GBW	117.2					

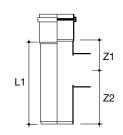




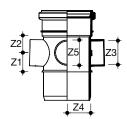












Size (mm)	Z1	Hole Saw Ø	Colour	Code						
ADAPTOR SADDLES - for 40mm waste pipe										
110/40	29	51	G	115P.4						

S	ize (mm)	L1	L2	Z1	Colour	Code			
LEVEL INVERT TAPER									
\$	82/50	117	44	15	G	124P.3.2			
\$	110/50	136	45	16	GB	124P.4.2			
\$	110/82	140	55	18	G	124P.4.3			
\$	160/110	233	75	44	G	124P.6.4			

Size (mm)	Z1	Z2	Z3	Colour	Code
SHORT BOSSED I	PIPE				
82	145	48	97	G	123P.3
110	212	43	110	GB	123P.4

Size (mm)	Z1	Z2	Z3	Z4	Z5	Colour	Code	
FOUR-WAY BOSS PIPE PUSH-FIT SOCKET/SPIGOT - 2 boss horns								
110	44	40	56	55	59	G	120P.412.2	

100 Push-Fit

Terrain Soil System - 100 Push-Fit

Size (mm)	L1	L2	Z1	Colour	Code
TRIPLE BOSS COL	LAR				
110	44	40	56	GB	120P.4.15

	Size (mm)	L	L Colour	
SOCI	KET PLUG			
\$	110	69	GBW	130.4
\\$	160	92	G	130.6

Size (mm) L1	L2	L3	L4	Z1	Colour	Code
UNIVERSAL SO see page 11	OIL MANI	FOLD	- for pu	sh-fit w	aste con	nections, for solve	nt waste connections
110	228	189	199	217	105	G	119P.4.15

For connection of BS EN 1566/BS 5255 32mm and 40mm waste pipes at floor level. Incorporates 4 inlets to accept 32mm or 40mm waste pipes without need for adaptors. Use with Swivel Elbow or Swept Bend. Complete with 4 sealing gaskets and 3 removable plugs. For solvent waste connections see page 11.

Refer to page 13 for bracketing options.

Bracketry available to both solvent weld and push-fit systems.

Size (mm)	Α	В	C	D	Е	F	Colour	Code
TRAPPED accept 40m					loor trap	(e.g. fo	r shower areas) v	vith 3 sockets to
110/82	110	169	51	43	82	50	GT	281.43
160/110	160	169	51	43	110	50	GT	281.64
110/82	110	194	64	56	82	75	GT	279.432*

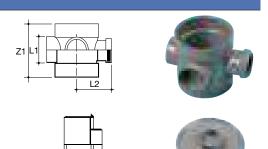
^{*2&}quot; Inlets only. Refer to page 31 for socket reducers if required

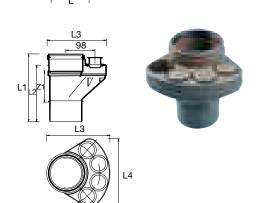
Seal depth: 50-75mm. Cleaning access via removable baffle with integral gasket to maintain airtight seal.

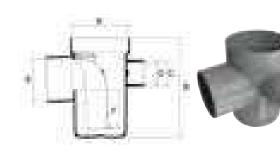
Size (mm)	A	В	Z1	Z2	Colour	Code
FLOOR GULLY II areas). Comprises of						oor (e.g. in shower
110 PVC	50 x 150	110	14	48	GW	282.6
110 SS	50 x 150	110	14	48	Self	283.6

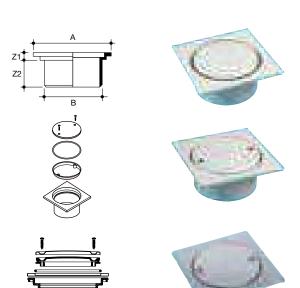
Size (mm)	Colour	Code
SEALED GULLY RAISING PIECE		
110	GW	284.6

Size (mm)	Colour	Code
SEALED GULLY RAISING PIECE		
110	Self	285.6









Terrain Waste System

200 Waste System - MuPVC (Solvent-Weld)



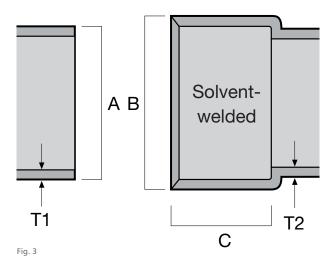
Solvent-weld MuPVC system:

- 32, 40 and 50mm integrated systems
- Wide range of bends and adaptors
- Integrated floor gullies

All Terrain fittings and extrusions are manufactured to BS EN ISO 9001: 2000 certification.

32, 40 and	32, 40 and 50mm pipe and fittings (Fig.3)									
Nom.	Α	В	С	T1 (min)	T2 (min)					
32mm	36	42	24	1.8	1.8					
40mm	43	49	27	1.9	1.9					
50mm	56	62	30	2.0	2.0					

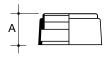
The pipe and socket illustrated here are for solvent weld jointing.



	Size (mm) L1		T (min)	Colour	Code					
WAS	WASTE PIPE - plain-ended									
\$	32	3m	1.8	GW	200.125.30					
\$	32	4m	1.8	GBWR	200.125.40					
\$	40	3m	1.9	GW	200.15.30					
\$	40	4m	1.9	GBWR	200.15.40					
\$	50	3m	2.0	W	200.2.30					
8	50	4m	2.0	GBW	200.2.40					

	L	
--	---	--

Size (mm)	A	Colour	Code				
SEAL RING ADAPTOR - to convert 50mm 207.2 spigot socket bends to expansion fitting							
50	65	GW	209.2				





	Size (mm)	L	Z	Colour	Code
STRA	AIGHT COUPL	ER DOUBLE S	OCKET		
\$	32	52	2	GBWR	210.125
\$	40	58	2	GBWR	210.15
8	50	65	2	GBW	210.2





	Size (mm)	L	Z	Colour	Code
UNIC	ON DOUBLE S	OCKET - threa	ded union for easy	disconnection if	required
\$	32	59	8	G	211.125
\$	40	65	8	G	211.15
\$	50	73	8	G	211.2





	Size (mm)	L	Z	Colour	Code
EXPA	ANSION COUF	LER SEAL RI	NG AND SOLVE	NT SOCKET	
\$	32	67	4	GW	225.125
\$	40	70	4	GW	225.15
	50	77	4	GW	225.2





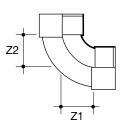
	Size (mm)	Z	Colour	Code
SPIG	OT SOCKET COL	JPLER		
\$	32	27	GW [227.125
\$	40	30	GW [227.15
	50	35	GW	227.2



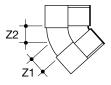


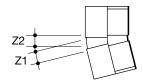
Terrain Waste System



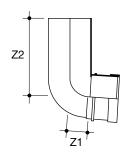


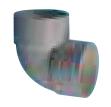


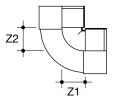




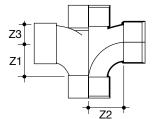




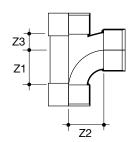












	Size (mm)	Angle°	Z2	Z2	Colour	Code
SWI	EPT BEND DO	UBLE SOC	KET - for	91¼° swept b	end, 91¼°, 135°	and 165° as standard
\$	32	911/4	34	34	GBWR	201.125.91
\$	40	911/4	38	38	GBWR	201.15.91
\$	50	911/4	45	45	GBW	201.2.91

	Size (mm)	Angle°	Z2	Z2	Colour	Code
SW	EPT BEND DO	OUBLE SOC	KET - for	135° swept b	end	
\$	32	135	10	10	GBWR	201.125.135
\$	40	135	11	11	GBWR	201.15.135
\$	50	135	14	14	GBW	201.2.135
\$	32	165	5	5	G	201.125.165
♥	40	165	5	5	G	201.15.165
\$	50	165	6	6	G	201.2.165

	Size (mm)	Angle°	Z2	Z2(max)	Z2(min)	Colour	Code				
SPIGOT/SOCKET BENDS - to change pipe direction in limited-space situations, 91½°, 130° and 150° as standard											
	32	911/2	19	92	46	GBW	207.125.92				
\$	40	921/2	21	95	52	GBW	207.15.92				
	50	921/2	29	102	64	GBW	207.2.92				
	32	135	8	30	-	GBW	207.125.135				
	40	135	11	38	-	GBW	207.15.135				
	50	135	13	46	-	GBW	207.2.135				
	32	150	8	52	29	GBW	207.125.150				
\$	40	150	9	49	33	GBW	207.15.150				

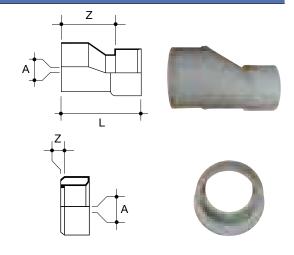
	Size (mm)	Angle°	Z2	Z2	Colour	Code
KNU	ICKLE BEND	DOUBLE S	OCKET			
\$	32	911/4	19	19	GBWR	202.125.91
8	40	911/4	22	22	GBWR	202.15.91

	Size (mm)	Angle°	Z1	Z2	Z3	Colour	Code
SWE	PT CROSS A	LL SOCKE	T				
\$	40	911⁄4	44	44	20	GW	206.15.91
\$	50	911⁄4	51	51	25	GW	206.2.91
\$	50	135	13	71	71	G	206.2.135

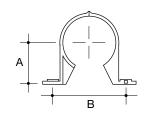
	Size (mm)	Angle°	Z1	Z2	Z3	Colour	Code
SW	EPT TEE ALL S	SOCKET - 9	1¼°, 1	35° and	165° as	standard	
\$	32	911⁄4	30	30	19	GBWR	204.125.91
\$	40	911/4	32	35	22	GBWR	204.15.91
\$	50	911/4	43	43	29	GBW	204.2.91
\$	32	135	8	48	48	GW	204.125.135
\$	40	135	10	57	57	GW	204.15.135
\$	50	135	13	71	71	GBW	204.2.135

Size (mm)	Α	L	Z	Colour	Code
EL INVERT TA Larger end spigo				dard fitting to ac	cept a smaller size
40/32	4	73	47	G	223.15.125
\$ 50/32	10	98	73	GW	223.2.125
\$ 50/40	7	62	62	G	223.2.15

	Size (mm)	Α	Z	Colour	Code
soc	KET REDUCE	R			
\$	40/32	0	3	GBWR	224.15.125
\$	50/32	7	6	GBW	224.2.125
\$	50/40	4	3	GBW	224.2.15

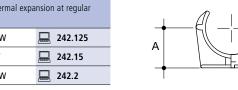


Size (mm)	Α	В	Colour	Code
PIPE FIXING CLIP				
32	33	54	GBWR	240.125
40	37	60	GBWR	240.15
50	43	76	GBW	240.2





Size (mm)	Α	В	Colour	Code
EXPANSION FITTIN points along pipework		LIP - to secure con	trol thermal exp	ansion at regular
32	33	54	GW	242.125
40	37	60	W	242.15
50	43	76	GW	242.2





	Size (mm)	L	Colour	Code
ACCI	ESS PLUG			
	32	47	GBW	237.125
\$	40	54	GBW	237.15
	50	56	GBW	237.2





Size (mm)	Α	В	Colour	Code
WEATHERING API	RON			
50	76	38	G	231.2

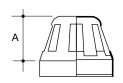




Terrain Waste System

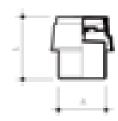
Terrain Waste System - 200 Solvent-Weld



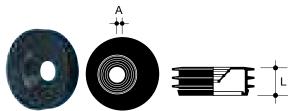


Size (mm)	А	Colour	Code
VENT COWL			
50	34	GW [250.2





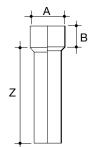
Size (mm)	Α	В	L	L1	C	D	Colour	Code
AUTOMATIC AIR							air into waste sys	tem when negative
pressure occurs, help	s pre	ent s	yphon	age o	traps			
50	56	26	74	55	25	25	W	253W



Siz	e (mm)	Α	L	Colour	Code
	OR TO UNDER ore, external us		D DRAIN - push-fit	connection into p	pipes with nominal
32	2/40/50	8	40	В	4DW200

Note: As a Terrain Underground product different discount structure applies.

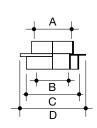




Note: Use with 9132.2

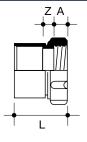
Size (mm)	Α	В	Z	Colour	Code			
POST FORMED STOCKET - supplied with seal ring								
50	70	42	358	G	226.2			





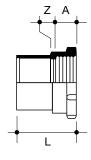
Size (mm)	Α	В	С	D	Colour	Code
CAULKING BUSH Solvent-weld to pipe	- for cor	necting	MuPVC v	vaste pipe	to 50mm sock	et of other material.
32/42/50	43	36	56	70	G	232

	Size (mm)	Α	L	Z	Colour	Code
				veld connec	tion of MuPVC wa	ste pipe (or waste
fitting	g) to BSP male th	readed fitti	ing or pipe			
\Diamond	32/32	15	50	11	W	218.125
\$	40/40	15	53	11	W	218.15



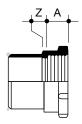


Size (mm)	Α	L	Z	Colour	Code
				eaded socket ded male pipe or f	- for solvent-weld itting
\$ 32/32	23	51	3	G	212.125
\$ 40/40	23	54	3	G	212.15
\$ 50/50	23	57	3	G	212.2



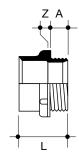


	Size (mm)	Α	Z	Colour	Code			
200 WASTE TO MALE IRON - spigot and threaded socket - for solvent-weld connection of MuPVC waste pipe or fitting to BSP threaded male pipe or fitting								
\$	32/32	23	3	G	216.125			
\$	40/40	23	3	G	<u></u> 216.15			
\$	50/50	23	3	G	216.2			



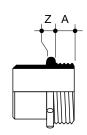


Size (mm)	Α	L	Z	Colour	Code			
 200 WASTE TO FEMALE IRON - socket and threaded socket - for solvent-weld connection of MuPVC waste pipe or fitting to BSP threaded female pipe or fitting								
\$ 32/32	19	48	3	G	<u>213.125</u>			
\$ 40/40	19	51	3	GW	<u></u> 213.15			
\$ 50/50	19	54	3	GW	213.2			





Size (mm)	А	Z	Colour	Code
		spigot and threade		
\$ 32/32	19	6	G	217.125
\$ 40/40	19	6	G	217.15
\$ 50/50	19	6	GW	217.2





Terrain Waste System

300 Waste System - Polypropylene (Push-Fit)



Push-fit polypropylene system:

- 32, 40 and 50mm integrated systems
- Quick and easy to install
- Saves time and labour costs
- Resistant to most oils, bleaches and detergents
- Wide range of bends and fittings

32, 40 and	32, 40 and 50mm pipe and fittings (Fig.4)									
Nom.	Α	D	E	T1 (min)	T2 (min)					
32mm	35	41	20	1.8	1.8					
40mm	41	47	23	1.9	1.9					
50mm	54	61	29	2.0	2.0					

^{*} Some Terrain fittings feature a groove here, as shown on the underside.

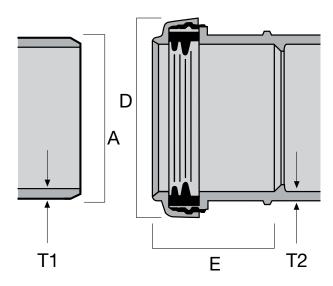


Fig. 4 Seal ring jointing

300 Push-Fit

Terrain Waste System - 300 Push-Fit

Size (mm)	L	T (min)	Colour	Code
WASTE PIPE - plai	n-ended			
32	3m	1.8	GBW	300.125.30
40	3m	1.9	GBW	300.15.30
50	3m	2	G	300.2.30

Size (mm)	L	Z1	Colour	Code
STRAIGHT COUPL	ER DOUBLE S	OCKET		
32	80	2	GBW	310.125
40	80	2	GBW	310.15
50	70	2	G	310.2

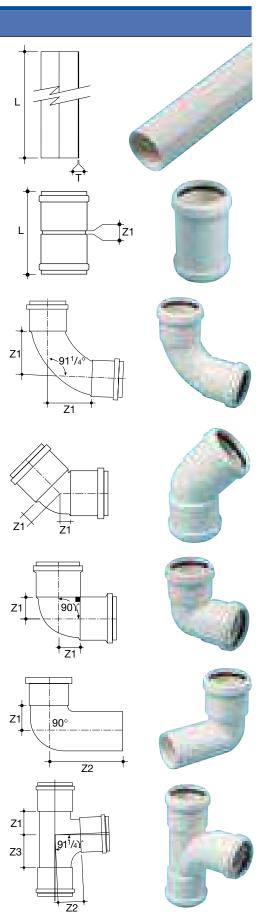
Size (mm)	Angle°	Z1	Colour	Code
SWEPT BEND DO	UBLE SOCKET	- for 91¼° swep	ot bend, 91¼° and	135° as standard
32	911/4	55	GBW	301.125.91
40	911/4	55	GBW	301.15.91
50	911/4	65	G	301.2.91

Size (mm)	Angle°	Z1	Colour	Code
SWEPT BEND DO	UBLE SOCKET	- for 135° swep	t bend, 91¼° and	135° as standard
32	135	10	GBW	301.125.135
40	135	11	GBW	301.15.135
50	135	14	G	301.2.135

Size (mm)	Angle°	Z1	Colour	Code
KNUCKLE BEND	90° DOUBLE SO	OCKET		
32	90	20	GBW	302.125.90
40	90	23	GBW	302.15.90
50	90	28	G	302.2.90

Size (mm)	Angle°	Z1	Z2	Colour	Code
SWIVEL ELBOW	BEND 90°	SINGLE	SOCKET/SI	PIGOT	
32	90	30	60	GW	307.125.90
40	90	25	60	GW	307.15.90

Size (mm)	Angle°	Z1	Z2	Z3	Colour	Code
SWEPT TEE 911/	4°					
32	911/4	25	30	35	GBW	304.125.91
40	911/4	30	33	40	GBW	304.15.91
50	911/4	35	40	46	G	304.2.91



Terrain Waste System

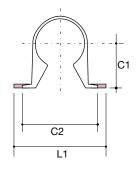
Terrain Waste System - 300 Push-Fit





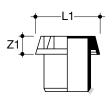
Size (mm)	Z1	Colour	Code
LEVEL INVERT TAPER	to accept smaller dian	neter waste pipe	
40/32	35	GBW	323.15.125
50/32	35	G	323.2.125
50/40	35	G	323.2.15





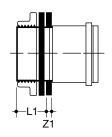
Size (mm)	L1	C1	C2	Colour	Code
PIPE AND FITTIN	G CLIP				
32	70	34	54	GBW	340.125
40	77	37	61	GBW	340.15
50	60	51	22	G	340.125





Size (mm)	L1	Z1	Colour	Code
ACCESS PLUG				
32	55	17	GBW	337.125
40	49	17	GBW	337.15
50	59	10	G	337.2





Size (mm)	L1	Z1	Colour	Code	
TANK CONNECTO with 2 sealing washer		- for connecting push-fit polypropylene pipe to water tank, supplied			
32	24	7	GW	311.125	
40	24	7	GW	311.15	
50	25	7	G	311.2	

300 Push-Fit

Terrain Traps & Pan Connectors

400 Traps System

As part of Terrain All Round Drainage Solutions, a comprehensive new range of traps and pan connectors has been introduced. All products are manufactured in the UK and carry the kitemark.

Polypropylene traps

- Range of 40 traps
- 32mm & 40mm polypropylene traps
- Premium quality
- Kitemarked
- Manufactured to BS 3943
- Manufactured in the UK
- Pipe stiffener with every trap
- Range includes telescopic and anti siphon traps

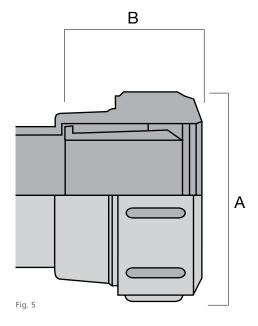
Pan connectors

- Wide range of 30 pan connectors
- Push Fit and solvent weld
- Premium quality
- Kitemarked
- Manufactured to BS 3943
- Manufactured in the UK
- Range includes variable degree and offset connectors



32, 40 and 50mm sockets (Fig.5)					
Size	Α	B (min)			
32mm	55	42			
40mm	65	49			

Tubular 'S' traps limits (Fig.5a) (trap folded)						
Part no.	C (max)	C (min)				
432.125	136	50				
432.15	150	60				



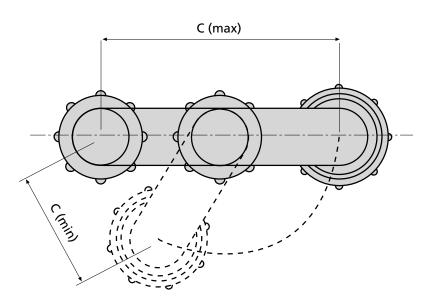


Fig. 5a

400 System

	Size (mm)	Z2	В	L	Colour	Code
вот	TLE TRAP - 75	imm water s	eal			
\$	32	39	26	152	W	411.125
\$	40	40	33	160	W	411.15

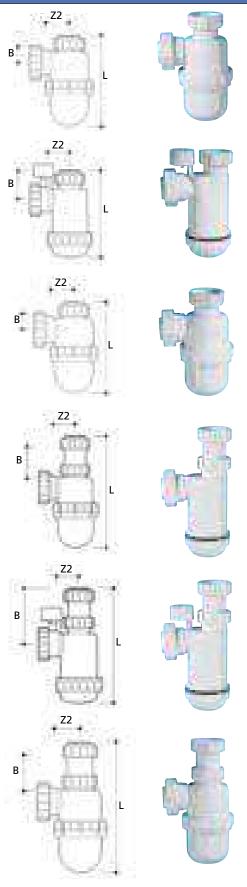
	Size (mm)	Z2	В	L	Colour	Code
ВОТ	TLE TRAP AN	ITI-SYPHO	N - 75mm	water seal		
\$	32	39	26	155	W	411AS.125
\$	40	40	33	163	W	411AS.15

	Size (mm)	Z2	В	L	Colour	Code			
RESEALING BOTTLE TRAP - 75mm water seal									
\$	32	39	26	151	W	415.125			
\\$	40	40	33	163	W	415.15			

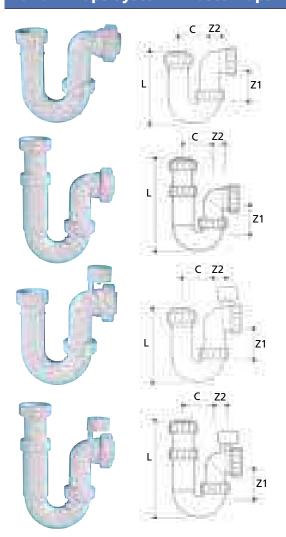
	Size (mm)		2 B L		Colour	Code
вотт	TLE TRAP - A	DJUSTABI	E TELES	COPIC - 75mi	m water seal	
\$	32	39	26	168 - 268	W	411T.125
8	40	40	33	173 - 272	W	411T.15

	Size (mm)	Z2	В	L	Colour	Code
BOT	TTLE TRAP AN	ITI-SYPHO	N - ADJI	JSTABLE TEL	ESCOPIC - 7	5mm water seal
\$	32	39	26	168 - 268	W	421AS.125
\$	40	40	33	173 - 272	W	421AS.15

	Size (mm)		В	L	Colour	Code
RESE	ALING BOT	TLE TRAP -	ADJUST	TABLE TELES	COPIC - 75mn	n water seal
\$	32	39	26	168 - 268	W	421.125
\$	40	40	33	173 - 272	W	421.15



Terrain Traps & Pan Connectors



	Size (mm)	L	С	Z1	Z2	Colour	Code			
TUB	TUBULAR SWIVEL P TRAP - 75mm water seal									
\$	32	135	57	57	24	W	431.125			
\$	40	140	64	64	30	W	431.15			

	Size (mm)	L	С	Z1	Z2	Colour	Code	
TUBULAR SWIVEL P TRAP - ADJUSTABLE TELESCOPIC - 75mm water seal								
\$	32	142 - 242	57	57	24	W	431T.125	
\$	40	150 - 250	64	64	30	W	431T.15	

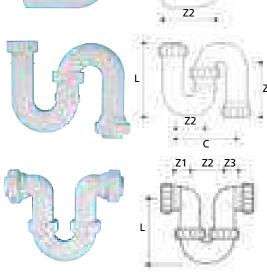
:	Size (mm)	L	C	Z1	Z2	Colour	Code	
TUBULAR SWIVEL P TRAP ANTI-SYPHON - 75mm water seal								
\$	32	135	57	57	24	W	431AS.125	
\$	40	140	64	64	30	W	431AS.15	

Size (mm)	L	C	Z1	Z2	Colour	Code
BULAR SWIV	EL P TRAP	ANTI-	SYPHO	N - ADJ	IUSTABLE TELI	ESCOPIC
\$ 32	142 - 242	57	57	24	W	431TAS.125
\$ 40	150 - 250	64	64	30	W	431TAS.15

:	Size (mm)	Z1	Z2	Colour	Code
Р ТО	S TRAP CON	IVERSION BEN	ID - to convert tu	bular P traps to S t	raps
\$	32	54	86	W	407.125.90
\$	40	60	90	W	407.15.90

	Size (mm)	L	С	Z1	Z2	Colour	Code			
TUBULAR SWIVEL S TRAP - 75mm water seal										
\$	32	135	111	54	57	W	432.125			
\$	40	142	127	61	64	W	432.15			

9	Size (mm)	L	Z 1	Z2	Z3	Colour	Code			
RUNNING TRAP - 75mm water seal										
\$	32	118	28	60	28	W	445.125			
\$	40	124	30	64	30	W	445.15			



400 System

	Size (mm)	L	Z1	Z2	Z3	Colour	Code				
RUN	RUNNING TRAP ANTI-SYPHON - 75mm water seal										
\$	32	118	28	60	28	W	445AS.125				
\$	40	124	30	64	30	W	445AS.15				

. 9	450	
Var	C Z2	

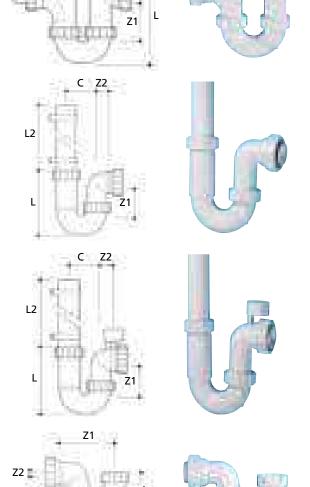
	Size (mm)	L	C	Z1	Z2	Colour	Code		
WASHING MACHINE HALF TRAP - 75mm water seal with adaptor									
\$	40	164	57	64	24	W	433.15		

	Size (mm)	L	C	Z1	Z2	Colour	Code
WA	SHING MACI	HINE HA	LF TRA	P ANTI	-SYPHO	N - 75mm water	seal with adaptor
\$	40	164	57	64	24	W	433AS.15

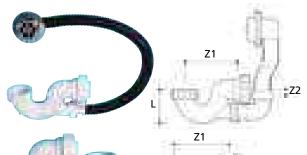
	Size (mm)	L	L2	C	Z1	Z2	Colour	Code		
WASHING MACHINE TRAP WITH UPSTAND - 75mm water seal with 0.6m upstand and 2 clips										
\\$	40	600	126	57	64	24	W	434.15		

	Size (mm)	L	L2	С	Z1	Z2	Colour	Code		
WASHING MACHINE TRAP ANTI-SYPHON WITH UPSTAND - 75mm water seal with 0.6m upstand and 2 clips										
\\$	40	600	126	57	64	24	W	434AS.15		

	Size (mm)	L	Z1	Z2	Colour	Code			
BATH TRAP WITH CLEANING EYE - 20mm water seal									
\$	40	65	102	12	W	455.15			

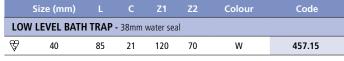


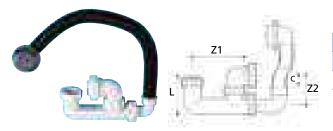
Terrain Traps & Pan Connectors



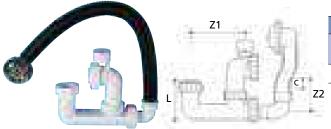
:	Size (mm)	L	Z1	Z2	Colour	Code
BATH	TRAP C/W	OVERFLO	W HOSE A	ND CP R	OSE - 20mm wate	r seal
\$	40	65	102	12	W	456.15



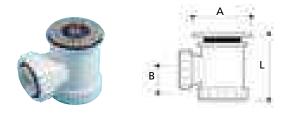




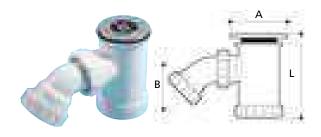
	Size (mm)	L	C	Z1	Z2	Colour	Code
LOV	V LEVEL BATH	I TRAP	C/W O	/ERFLO	w Hos	E AND CP ROS	E - 38mm water seal
\$	40	85	21	120	70	W	459.15



Size (mm)	L	C	Z1	Z2	Colour	Code					
 LOW LEVEL BATH TRAP ANTI-SYPHON C/W OVERFLOW HOSE AND CP ROSE - 75mm water seal											
\$ 40	85	58	120	102	W	451.15					



	Size (mm)	Α	В	L	Colour	Code				
SHOWER TRAP - 19mm water seal, 70mm grid										
\$	40	88	40	99	W	482.15				
\$	40	88	40	99	C/P	483.15				



	Size (mm)	Α	В	L	Colour	Code
SHO	OWER TRAP W	/ITH 45° A	DJUSTAE	BLE WASTE	- 50mm water s	eal, 70mm grid
\$	40	88	64	129	W	484.15
\$	40	88	64	129	C/P	486.15

400 System

Terrain Traps System - WC Pan Connectors 490

	Size (mm)	L	Z1	Z2	Colour	Code					
STRA	STRAIGHT WC CONNECTOR FIN SEAL										
\$	110	127	30	114	W	499P.4.00					

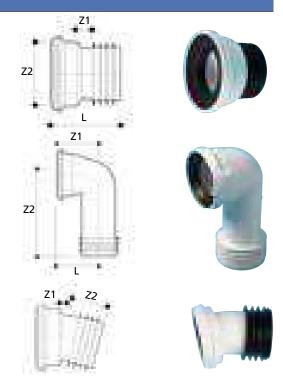
	Size (mm)	Angle°	L	Z1	Z2	Colour	Code				
90° 1	90° WC CONNECTOR FIN SEAL BEND										
\$	110	90	118	116	250	W	499P.4.90				

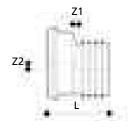
	Size (mm)	Angle°	Z1	Z2	Colour	Code					
14°	14° WC CONNECTOR FIN SEAL SPIGOTS										
\\$	110	14	15	81	W	499P.4.104					

	Size (mm)	L	Z1	Z2	Colour	Code					
40MM OFFSET WC CONNECTOR FIN SEAL											
\$	110	131	33	40	W	494P1.4.00					
12MM OFFSET WC CONNECTOR FIN SEAL											
8	110	117	11	11	W	494P2.4.00					

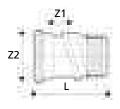
	Size (mm)	Angle°				Colour	Code					
SWIV	SWIVEL CONNECTOR 0-30° FIN SEAL											
\$	110	0-30	118	45	114	W	498P.4.030					

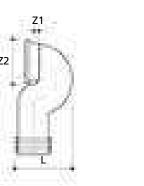
	Size (mm)	Angle°	L	Z1	Z2	Colour	Code				
SW	SWAN NECK WC CONNECTOR 90° FIN SEAL										
\$	110	90	175	16	139	W	496P.4.90				











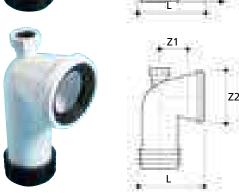


Terrain Traps & Pan Connectors

Terrain Traps System - WC Pan Connectors 490



	Size (mm)	Angle°	L	Z1	Z2	Colour	Code				
LONG 90° WC CONNECTOR FIN SEAL - 225mm leg											
♥	110	90	172	74	390	W	491P.4.90				

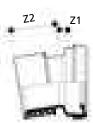


	Size (mm)	Angle°	L	Z1	Z2	Colour	Code				
90° WC CONNECTOR WITH BOSS FIN SEAL											
\$	110	90	171	73	138	W	495P.4.90				



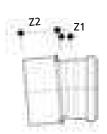
	Size (mm)	L	Z1	Z2	Colour	Code				
EXTENSION 200MM										
\$	110	250	54	114	W	493P.00				





Size (mm)	Angle°	Z1	Z2	Colour	Code
				DT - when used i her side of the so	n conjunction with oil stack
110	5	14	58	W	499.4.05
110	14	19	58	W	499.4.14
110	24	24	58	W	499.4.24
110	34	26	70	W	499.4.34





Size (mm)	Angle°	Z1	Z2	Colour	Code
WC FRAME MAN	NIFOLD BEN	ND CONI	NECTORS I	FIN SEAL SPIG	ОТ
110	5	7	65	В	497.35.05
110	14	11	65	В	497.35.14
110	24	14	70	В	497.35.24
110	34	18	77	В	497.35.34
110	9	9	63	В	F497.35.09
110	18	11	67	В	F497.35.18
110	29	18	77	В	F497.35.29

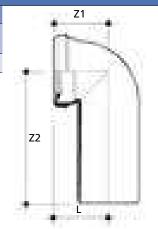
400 System

Terrain Traps System - WC Pan Connectors 490

Size (mm) Angle° L Z1 Z2 Colour Code

WC CONNECTOR 90° SPIGOT OUTLET - for connection of WC pans to existing soil or waste pipework previously connected to traditional 'S' mode pan

110 90 150 63 240 W 499.4.90



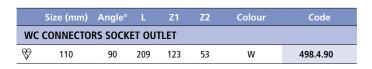




	Size (mm)	Angle°	Z1	Z2	Colour	Code
WC (CONNECTOR	RS SOCKET	OUTLET			
₩	110	21/2	12	101	W	498.4.02

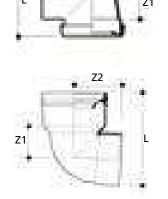
		6	-	-
ode		H.		
		8	ġ.,	
4.02			-	+
			72	100



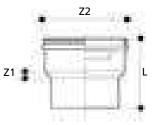


	Size (mm)	Angle	1	71	72	Colour	Code
90°						T - for connectin	
	pans to soil pipe						3
\\$	110	90	208	72	106	W	492.4.5

	Size (mm)	L	Z1	Z2	Colour	Code			
	WC STRAIGHT CONNECTOR SOCKET OUTLET - for connecting non BS 5503 WC pans to soil pipes								
♥ 110 120 12 133 W 495.4.5									



Z1







Terrain Waste System

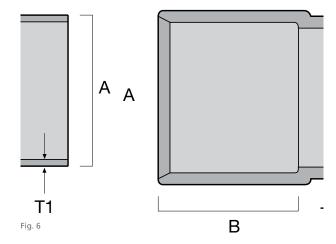
500 Overflow System - for Cold, Non-Pressure Water. Sockets are for Solvent-Weld Jointing



Solvent-weld PVC-u system for cold, non-pressure water:

- 19mm PVC-u pipe and fittings
- Range of tank connectors

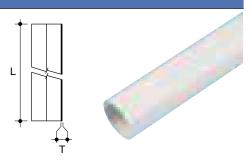
Α	В	T1 (min)	T2 (min)
21	19	1.1	2.0



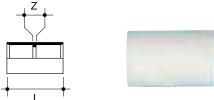
500 Overflow

Terrain Waste System - 500 Overflow

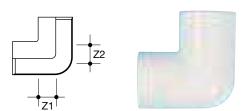
	Size (mm)	L	T (min)	Colour	Code
OVE	RFLOW PIPE -	olain-ended			
	19	4m	1.1	GBW	500.75.40



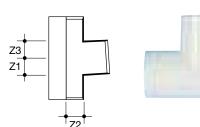
Size (mm)	L	Z	Colour	Code
STRAIGHT COUP	ER DOUBLE S	OCKET		
19	40	2	W	510.125



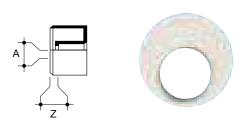
Size (mm)	Angle°	Z1	Z2	Colour	Code
BEND DOUBLE S	OCKET - 91	¼° and 1	35° as stand	lard	
19	911/4	12	12	W	501.75.91
19	135	6	6	W	501.75.135



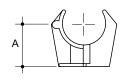
Siz	e (mm)	Angle°	Z1	Z2	Z3	Colour	Code
BRANC	H - 91¼° a	as standard					
	19	911/4	13	13	13	W	504.75.91



Size (mm)	Α	Z	Colour	Code
SOCKET REDUCER				
19/32	5	5	W	524.75



Size (mm)	А	Colour	Code		
PIPE FIXING CLIP (PLASTIC)					
19/32	20	W	540.75		

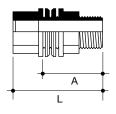




500 Overflow

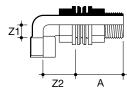
Terrain Waste System - 500 Overflow





Size (mm)	А	L	Colour	Code		
STRAIGHT TANK CONNECTOR - to connect cistern/tank to overflow pipe						
19	48	69	W	511.75		

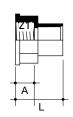




	Size (mm)	Angle°	Α	Z1	Z2	Colour	Code
BEN	BENT TANK CONNECTOR 90°						
	19	90	48	13	32	W	502.75.90

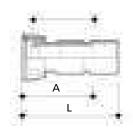
Solvent-weld socket to receive overflow pipe. Threaded socket to receive $\frac{3}{4}$ BSP male threaded pipe end.





Size (mm)	А	L	Colour	Code
BSP ADAPTOR SO overflow pipe to threa			4"BSP SOCKE	T - to connect PVC-u
19	14	39	W	512.75

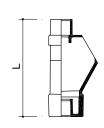




Size (mm)	А	L	Z1	Colour	Code
REVERSE NUT CONNECTOR - to connect PVC-u overflow pipe to threaded components					
19	35	54	25	W	519.75

Threaded loose nut to receive 3/4" BSP male threaded pipe end.





Size (mm)	L	Colour	Code
TUNDISH			
19	117	W	590.75

Accessories/Ancillaries

Accessories/Ancillaries

Size (mm)	Colour	Code			
WC PAN SEAL (SOIL) - replacement seal for pan outlet diameter 95¼ - 121mm. Material: EPDM					
110	В	9124			

Note: Use with 495.45 / 492.45

Size (mm)	For Fittings	Colour	Code
	NGS (SOIL) - suitable for soil system tors to Cast Iron. Soil fittings as listed.		ts and soil pipe,
110	Push Fit Soil (P) range	В	9116.4
160	Push Fit Soil (P) range	В	9116.6
82	109/111/111.S/126/132	В	9120
110	103/105/109/111/111.S/126/132/137	В	9119.B





Size (mm)	Colour	Code
SPARE SEAL RINGS (SOIL) - allows soil fittings Material: EPDM	to accept metric copp	per pipe to BS 2871.
110	Red	9149

Size (mm)	Colour	Code
SPARE SEAL RING (WASTE) - 200 Waste System BS 5255 and BS 5254, acceptable for copper pipe to		ipe manufactured to
32	В	9132.125
40	В	9132.15
50	В	9132.2

Note: Use with 226.2





Size (mm)	Colour	Code
MANIFOLD SEALING INSERT - Material: EPDM		
40	В	9113

Note: Use with 119.4.115

Size (mm)	Colour	Code			
MANIFOLD PLUG (SPARE) - Material: Polypropylene					
40	G	9114			

Note: Use with 119.4.115



Accessories/Ancillaries

Accessories/Ancillaries



Size (ml)		Colour	Code	
RAIN ACCESSO s cap, incorporates	ORIES - LIQUID WELD - for s s integral brush	olvent jointing of PV	/C-u pipes and	
\$ 250	Tub	S/Steel	9100.250SW	
\$ 500	Tub	S/Steel	9100.500SW	

The second second second
The second second second

Size (ml)		Colour	Code
TERRAIN ACCESSO	RIES - LUBRICANT - for lu	ubricating seal rings on e	expansion fittings
250	Tub (silicone)		9136.250L
500	Tub (Soluble)		9136.500L

Material: Silicone grease or Soluble lubricant.



Size (ml)		Colour	Code
TERRAIN ACCESSOR before applying Liquid Weld		D - for cleaning PVC-u	pipe and fittings
250	Tub		9101.250CF

Code

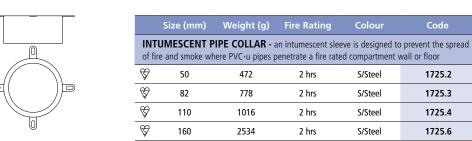
1725.2

1725.3 1725.4

1725.6

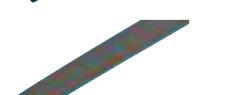
Material: Acetone. Screw top cans.







	Colour	Code
FIXING BOLTS - heavy duty expanding fixing bolts -	pack of 4	
		1726



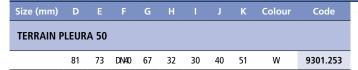
	Colour	Code				
TOGGLE BOLT - to clamp 112 and 115 Boss Connectors while solvent-welding						
	Self	9115				

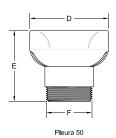
Size (mm)	Colour	Code
PACKING PIECE - for use with 140 and 142 Pipe Brad	ckets and 191 Interme	ediate Support Brackets
82	G	9104.3
110	GB	9104.4
160	G	9104.6

Size (mm)	Code					
HOLE MARKING TEMPLATE - to clamp 112 and 115 Boss Connectors while solvent-welding						
110	Blue	9105.500				

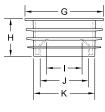
Terrain Pleura System

Alternative Ventilation System



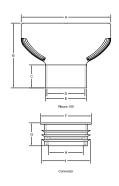






Global Connector

Size (mm)	Α	В	С	D	Е	F	G	Н	1	Colour	Code
TERRAIN PLEURA 100											
	195	141	50	83	89	111	50	75	106	W	9301.34





Size (mm)	Α	В	С	D	Е	F	G	Н	- 1	Colour	Code
TERRAIN P.A.P.A Postitve Air Pressure Attenuator											
	200	652	104	83	89	111	50	75	106	W	9300.4

NOTE: Please request design advice prior to using these products. P.A.P.A must be used in conjuction with Terrain Pleura valves.





Refer to Terrain Pleura System brochure for further details

Terrain Fire Trap

Terrain Firetrap Sleeves

- Compatible with all Terrain systems.
- Comprehensively tested to BS EN 1366-3, BS 476P+20.
- Suitable for vertical and horizontal fire compartmentalisation.
- Quick and easy to install.
- For new installations and retrofit.

Pipe size **Product Code** Ø suitable for 56mm 1925.60 110mm 60mm 50mm PVC 1925.89 89mm 139mm 82mm 1925.114 114mm 164mm 110mm 1925.169 169mm 219mm 160mm



Terrain Firetrap Collars - for Terrain PVC Soil and Waste

- Seals against smoke, toxic gases, flames and heat
- Can be surface mounted or built in
- Intumescent material is totally unaffected by water, is robust, 'non-flaking' and difficult to tear
- Stainless steel outer casing

See Terrain Firetrap brochure for further details.

Product Code	Ø	Fire Rating
1725.2	50mm	2 Hour
1725.3	82mm	2 Hour
1725.4	110mm	2 Hour
1725.6	160mm	2 Hour



General Principles

Good Site Practice

- 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 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 meter centres (Fig. 1)
- Provide side support with 75mm wide battens at 1m centres (Fig. 1).
- Maximum stack (normal conditions): 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 out of direct sunlight and away from any heat source.

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.

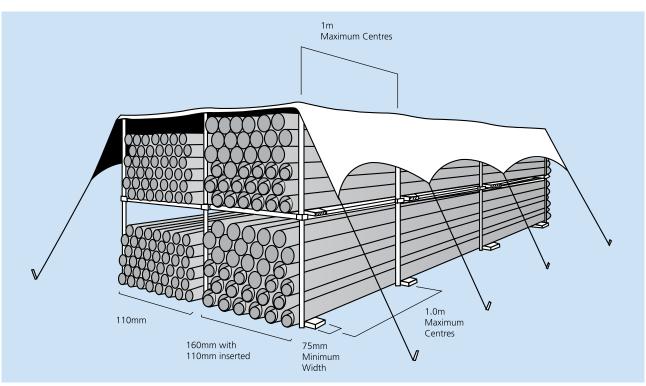


Fig. 1 Pipe stacking

Sitework Instructions

Solvent cement jointing

This technique applies to 100, 200, 400 and 500 pipes when used with 100, 200 and 500 system fittings.

Step 1

Cut pipe square, deburr and clean mating surfaces with Terrain cleaning fluid 9101 (Fig.1).

Step 2

Coat mating surfaces with solvent cement using a clean brush, assemble joint immediately, removing any excess cement with a clean rag. Initial set 3-minutes. Note 24 hours is required for the joint to fully set before testing. (Fig. 2).

Brush supplied with tin is suitable only for sizes up to 50mm for larger sizes use at least 12mm brush. Directions for use of solvent cement are printed on the container label and must be followed closely.



Under normal use only fit 109 to upstream socket.

Step 1

Clean mating surfaces with Terrain cleaning fluid 9101 (Fig.3).

Step 2

Fit seal ring into 109 collar (Fig. 4)

Step 3

Carefully apply solvent cement to mating surfaces (Fig. 5)

Step 4

Assemble immediately applying firm even pressure until collar is in correct position (Fig. 6)







Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6

Estimating guide: Terrain cleaning fluid, liquid weld, lubricants

Contents		Pipe sizes & number of joints achievable*					
		32mm	40mm	50mm	82mm	110mm	160mm
9101 Cleaning Fluid	125ml	80	80	80	30	20	10
	250ml	160	160	160	60	40	20
9100 Liquid Weld solvent cement	30ml	10	10	10	3	2	1
	125ml	27	27	27	10	7	3
_	250ml	55	55	55	20	15	7
9136 Lubricant	250gm	400	300	250	200	150	100

^{*} For guidance only: approximate number allowing for wastage.

Seal ring jointing - 109

Step 1

File a 45° chamfer onto end of square cut pipe. Lubricate rubber seal with Terrain lubricant 9136 (Fig.7).

Step 2

Enter pipe fully into socket, mark pipe as shown (Fig. 8).

Step 3

Withdraw pipe until the mark is 12mm away from socket. This means a 12mm gap exists between the end of the pipe and the socket register. This gap will allow the pipe to expand without distorting the pipework. Anchor the expansion joint with a holderbat or if not practical anchor a fitting within 1 metre of the joint (Fig 9 & 10).



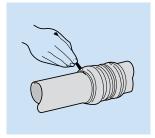
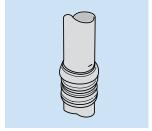


Fig. 7

Fig. 8



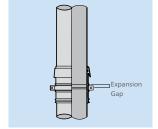


Fig. 9

Fig. 10

Slip coupling - 111.S

Slip couplings are used for inserting additional fittings such as branch or for remedial work in existing soil pipework. To insert fitting:

Step 1

Assemble the fitting with a short length of pipe in the appropriate sockets. Cut out a section of the assembly, allowing for an expansion gap. Clean and chamfer pipe ends. Lubricate seals of the slip couplings.

Step 2

Slide the couplings completely over the spigot ends of the existing pipe.

Step 3

Insert and line up the new assembly, slide back the couplings to cover over the joints. Secure slip couplings with holderbats. (See Fig. 11).

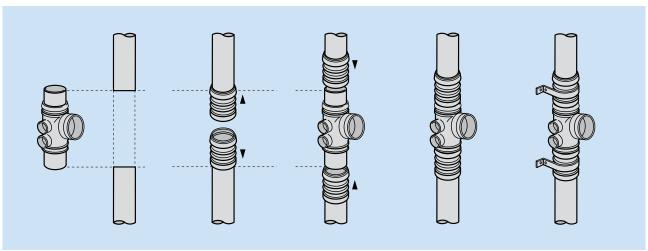


Fig. 11

Sitework Instructions

Support and expansion

Plastic pipes expand and contract with changes in temperature. It is therefore essential that expansion joints be provided for the relief of such thermal movement. Any point where a pipe is made good, or fire stopped when passing through a floor or wall, must be treated as a fixed point when arranging the position of expansion joints, but should not be relied on to anchor the pipe unless the socket of a fitting is firmly concreted in. An expansion joint must be fitted between any two fixed points one metre or more apart.

(See Fig. 12) Vertical stacks are generally suported by holderbats anchoring expansion joints. Intermediate holderbats are necessary to steady the pipes.

More frequent support is required in horizontal runs. Maximum distances between expansion joints and holderbats are given in the tables below.

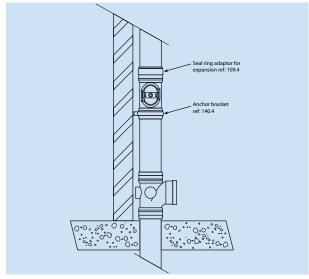


Fig. 12

	Size ins	Size mm	Max Support	Max Support	Max Expansion
			Vertical Metres	Horizontal Metres	Horizontal or Vertical Metres
Soil System	3	82	2.0	0.9	4.0
	4	110	2.0	1.0	4.0
	6	160	2.0	1.0	4.0
Waste System	11⁄4	32	1.2	0.4	2.0
	1½	40	1.2	0.5	2.0
	2	50	1.2	0.9	2.0

NOTE: For further details, refer to separate brochure:
"A Guide to Thermal Movement"

Steel holderbats, 140 and 141

These are designed to clamp fittings, creating a fixed point and to control thermal movement of pipework.

To use holderbats for fittings the strap must fit snugly around the fitting. locate tongue in front of square hole and position strap to suit curvature of fitting. Insert bolt in circular hole and tighten nut (Fig. 14).

For pipe, locate tongue in back square hole and bolt in circular hole and tighten nut. The pipe must be free to move through the holderbat to allow expansion and contraction (Fig. 15). (Alternatively a packing piece 9104 can be used for pipe with the tongue located in the front square hole, as for fittings (Fig. 16).

Plastic adjustable holderbat 143

This is designed to perform the same two functions as the steel holderbats, i.e. to support pipework and allow thermal movement. When clampled around the socket of a fitting it creates a fixed point (Fig. 17).

Adjustable holderbat 144

This is designed to perform the same functions as the other holderbats except it provides up to 28mm of adjustment on the 110mm system. When clamped around the socket of a fitting it creates a fixed point. When used to support pipe it is necessary to locate strap onto inside of back plate (Fig. 18).

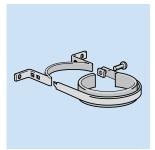


Fig. 13



Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 17(1)



Fig. 17(2)

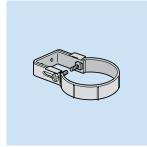


Fig. 18



Fig. 18(1)



Fig. 18(2)

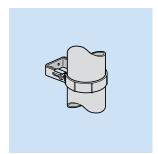


Fig. 18(3)

Sitework Instructions

Boss pipes 120 & 123

Only top socket can be converted to seal ring using seal ring adaptor 109.

Lugs permit holderbat anchorage.

120.4 - Accepts 200.125 and 200.15 pipe. (Fig. 22).

Sockets can be converted for expansion using a seal ring adaptor 109.

120.3.2 - Accepts 200.2 pipe and is suplied with blanking plugs that can have the centres removed to accept 200.15. (Fig. 23).

Must be used with engraved arrow pointing downstream to accommodate built in fall of $1\frac{1}{4}$ °.

123.4 - Must be used with branch boss adaptors 117 or 117.90. Waste pipe then push fits into fitting. (Fig.24)



Only the top socket can be converted to seal ring using seal ring adaptor 109.

This boss pipe is for use with bends 207.15.150 allowing the waste pipe to approach at clip distance without the use of offsets. It can be used in both flat (Fig. 26) and corner (Fig.27) situations where pipes approach at 180° and 90° respectively. Solvent weld blanking plug into unused socket.

All bosses will accept 1½" waste pipe, solvent welded direct into the boss pipe.

For 1¼" connection a socket reducer 224.15.125 is required. Then use 207.125.150.

NOTE: The letters A, B, and C will be found engraved above each socket on the fitting.



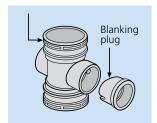


Fig. 22





Fig. 24

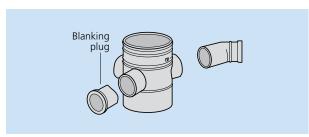


Fig. 25

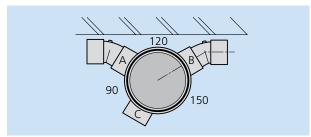


Fig. 26

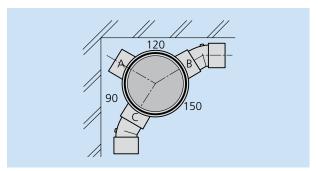


Fig. 27

Connection via universal manifold

Applicable to:

119P Universal Soil Manifold (Fig. 79).119 (solvent connections) and 119P (push-fit connections)For 32mm and 40mm waste connection

- For up to four connections of BS EN 1566/
 BS EN 1451-1 waste pipe at floor level (e.g. in bathroom) without need for adaptors.
- May be positioned neatly in corner of room for connection to internal soil stack.
- Supplied with four inlets and with removeable plugs.
- A sealing gasket is supplied for each inlet (Push fit only).
 Install as follows:
 - Mark selected position the manifold will occupy on the floor and cut out shape.
 - Push-fit soil connections to top socket, spigot connection to bottom socket.
 - Remove plug (if present) from selected waste inlet(s).
 - Push-fit as necessary waste pipe into the manifold until the stop is reached.
 - Check that any waste inlet which is not required has plug in place.

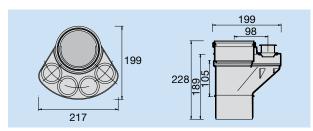


Fig. 79 419.4.15 Universal soil manifold

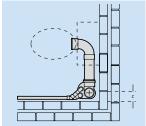


Fig. 80 Internal soil stack connection

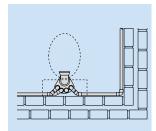


Fig. 80 Internal soil stack connection

Sitework Instructions

Variable boss branch

- Slacken locking ring (Fig. 28).
- Rotate lower unit so that waste connections are in required position (Fig. 29).
- Tighten locking ring (Fig. 30).
- If at ground floor use spigot version push into buried drain lipseal (Fig. 31).
- If at first floor and above use socket version and solvent weld to stack (Fig. 31).
- If only one waste connection is required solvent weld blanking plug into unused socket (Fig.32).
- If 1½" connections are required cut off socket plug at cut guide and use as a reducer (Fig.33).





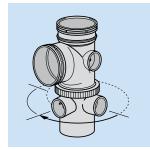


Fig. 29



Fig. 30



Fig. 31

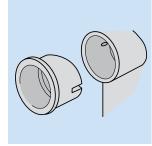


Fig. 32



Fig. 33

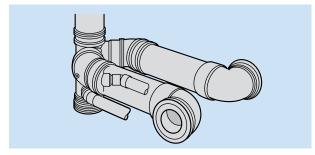


Fig. 34

Boss adaptors

These accept pipe via a boss ring adaptor, 117 straight or bent.

- Cut out centre of boss. For correct size hole cutter refer to (Fig. 35).
- Remove swarf and clean mating surfaces with Terrain cleaner 9101 (Fig. 36).
- Apply solvent cement 9100 to all mating surfaces (Fig. 37).
- Position boss adaptor, twist to ensure contact then hold under pressure for a few moments (Fig. 38).
- Remove excess cement (Fig. 39).



- Cut correct hole size and deburr (Fig. 40).
 For correct size hole cutter refer to table below.
- Remove swarf and clean mating surfaces with Terrain cleaner 9101 (Fig. 41).
- Apply solvent cement 9100 to all mating surfaces (Fig. 42).
- Pass inner component outward through hole from the inside of the pipe and push the outer component firmly on to it ensuring that the key and keyway are lined up. Ensure engraving reads: top 91¼ for waste top 88¾ for vent (Fig. 43).
- Insert toggle bolt and screw up until boss is fully closed with flanges in contact with the pipe both inside and outside. (Fig. 44).

NOTE: Leave toggle bolt in position for approximately 15 minutes.

Hole saw sizes				
Aperture diameter (mm)	To suit fitting ref.			
33	281.43			
48	112.125 - 135.3 - 112P.4.125			
51	117* - 112P.4.15			
57	112.15 - 115P.3 - 115P.4			
60	122.125 - 112P.4.2			
64	122.15 - 115			
70	112.2			
73	135.4 - 135.6			
75	122.2			

^{*} All sizes.



Fig. 35



Fig. 36

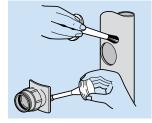


Fig. 37



Fig. 38



Fig. 39

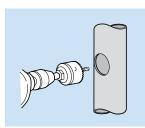


Fig. 40



Fig. 41

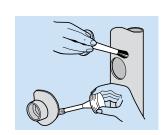


Fig. 42

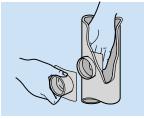


Fig. 43

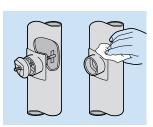


Fig. 44

Sitework Instructions

Self locking boss 122

- Cut correct hole size and deburr. For correct size hole cutter refer to table on page 59 (Fig. 45).
- Slacken nut on boss to full extent. Enter boss into hole keeping the keyway to the last piece to enter the hole. Tighten outer locking nut (Fig. 46).
- Once satisfied that the boss fits neatly into the pipe remove and clean all mating surfaces with Terrain cleaner 9101 (Fig. 47).
- Apply solvent cement 9100 to all mating surfaces (Fig. 48).
- Re-enter boss into the pipe. Screw up until hand tight and remove excess cement (Fig. 49).
- Template available ref: 9105.500.



9105.500

Access door 135 (4" & 5")

- Set out centre lines as described on inside of access door. Check aperture will be parallel with axis of pipe (Fig. 50).
- Drill two overlapping holes of correct size at 1¾" centres (Fig. 51).
- Remove sides of aperture using a medium file (Fig. 52).
- Slacken door to its fullest extent. Push the inner part of the door into the hole at a slight angle turning at the same time. When it is fully entered, turn it parallel to the axix of the pipe ensuring that the inner part locates into the hole. (Fig. 53).
- Ensure seal ring is lubricated prior to fitting.
 Tighten the screw whilst pulling the door outwards.
 Do not over tighten (Fig. 54)

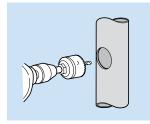


Fig. 45

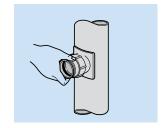


Fig. 46



Fig. 47

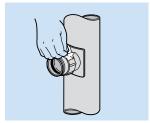


Fig 48



Fig. 49

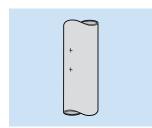


Fig. 50

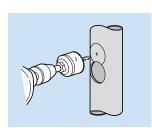


Fig. 51



Fig. 52

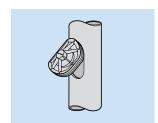


Fig. 53

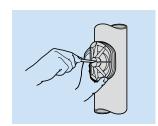


Fig. 54

Weathering slates for pitched roofs 149

- Place 150 Vent Cowl on open end of soil stack (do NOT solvent-weld at this stage) (Fig. 55).
- Slide 149 Weathering Slate over stack (Fig. 56).
- Dress the base plate to fit the lower tiles. Lay the side and upper tiles over the base plate (Fig. 57).
- Remove the vent cowl. Solvent-weld 131 Weathering Apron to pipe above rubber cone to prevent water ingress. Place 150 Vent Cowl onto stack and solventweld into position (Fig. 58).

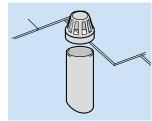
NOTE: On low pitched roofs, optimum weathering may be achieved by making a single weld to the lower edge of the base plate.

In areas subject to high winds, or in difficult tiling situations, use tingles to prevent lower edge lifting away from tiles.

If installing on roof with interlocking tiles, boards or additional battens may be required underneath the weathering slate. The stack must pass through only ONE course (if necessary, the soil stack should be offset beneath the roof).



- Dress first layer of felt up to pipe (Fig. 59)
- Place 150 Vent Cowl on open end of soil stack (do NOT solvent-weld at this stage). Slide 149
 Weathering Slate over stack. Push slate (and its rubber cone) down onto first layer of felt (Fig. 60)
- Coat the aluminium baseplate with bitumen.
 CAUTION: Keep hot material away from rubber cone
 Place second layer of felt over baseplate up to the cone. Trim accordingly. Repeat for third layer of felt (Fig. 61).
- Solvent weld weathering apron 131 for asphalt to pipe above cone to prevent ingress of water. Replace vent cowl (Fig. 62).





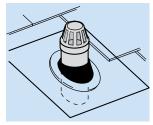
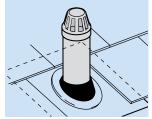


Fig. 56



Fia. 57

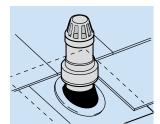


Fig 58

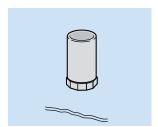


Fig. 59

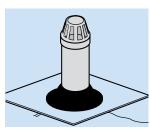


Fig. 60

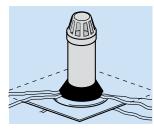


Fig. 61

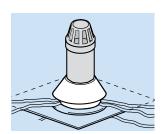


Fig. 48: Vent cowl 150 Weathering apron 131.3.200 or 131.4.200

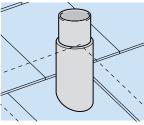
Sitework Instructions

Weathering to pitched roofs using purpose made slate e.g. lead

- Position purpose-made weathering slate on open end of soil stack (Fig. 63).
- Slide 131 Weathering Apron over stack and solventweld in position. Replace vent cowl and solvent-weld into position (Fig. 64).

Weathering to asphalt roofs using purpose made slate e.g. lead

- Position purpose-made weathering slate on open end of soil stack. Lay asphalt as normal, over baseplate and to upper rim of lead upstand around pipe. Feather this edge of the asphalt (Fig. 65).
- Slide 131 Weathering Apron over stack and solventweld in position. Place 150 Vent Cowl onto stack and solvent-weld into position (Fig. 66).



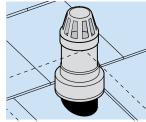


Fig. 64: Vent cowl 150 Weathering apron 131.3.200

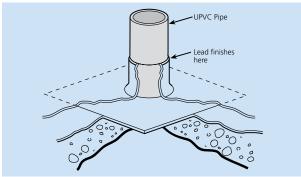


Fig. 65

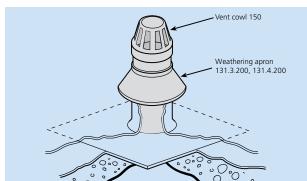


Fig. 6

System Planning

System connections to below ground drainage

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

- 110mm Soil Pipe to 110mm Underground 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
- 82mm Soil Pipe to 110mm Underground 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

Connecting to waste system (waste pipe to BS EN 1566)

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.

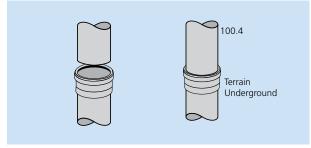


Fig. 25

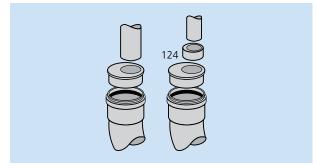


Fig. 26

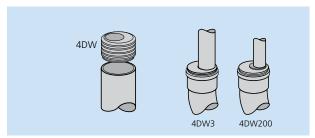


Fig. 27

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

The centre of 130 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.

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

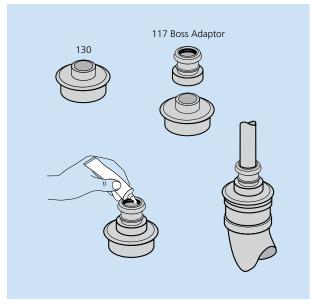


Fig. 28

System Connections

Automatic air admittance valves 153.3.4 & 253

Installation

The spigot of the valve should be fitted vertically into a seal ringed socketed fitting using lubricant ref. 9136. The valve should normally be positioned in the roof space, but if fitted to a WC float or waste branch, must always be positioned above the spill-over level of appliances. The insulating cover should be used when there is a possibility of condensation forming within the valve body.

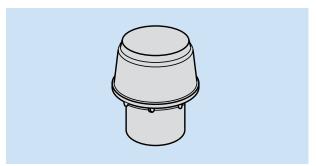
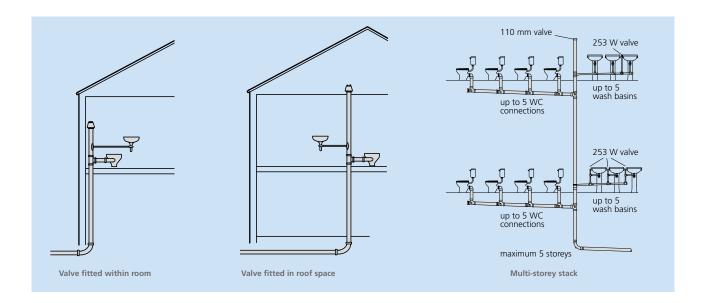
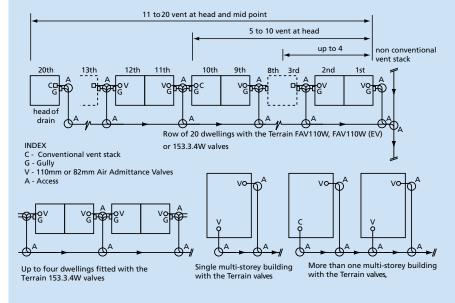


Fig. 67





Houses B, C and D may have automatic air admittance valve but house A must have normal S.V.P. to vent head of drain

A typical row of dwellings connected to a common drain, with automatic air admittance valves fitted to soil and vent stacks.

NOTE: providing that the head of drain (house A) is open vented, i.e. with S.V.P. then up to 9 houses downstream may be fitted with automatic air admittance valves.

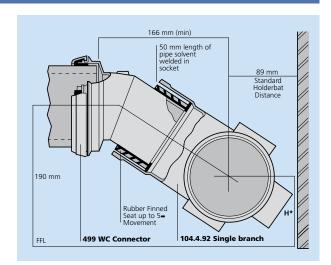
Multiple connection of BS 5503 WC pansApplicable to: 129 WC manifold connectors

Connections to float laid to 1° fall of float (17mm drop per 1 metre run).

 For minimum dimensions solvent-weld 50mm pipe length into branch socket to provide sleeve.

NOTE: To extend distance between WC connector and branch, a longer length of pipe may be used.

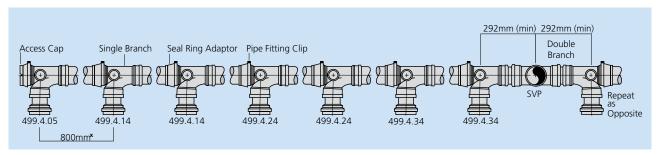
- Position and fix branch to wall.
- Fit finned rubber seal onto spigot of connector.
- Push spigot of connector into sleeved branch socket (DO NOT LUBRICATE).
- Lubricate rubber seal with 9136 Lubricant to accept WC spigot.
- Align connector socket so that it is square with WC spigot (finned seal allows up to 5° adjustment).



Manifold connector connected to 104 branch

Alternatively float construction can be achieved using 498.4.02.

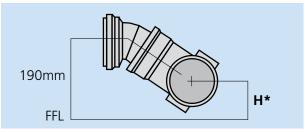
For centres less or greater than 800mm contact Technical Department.



Multiple WC pan connections layout

Distance from finished floor level (FFL) to centre of float				
Connector Type	H* mm (min)	H* mm (max)		
499.4.05	166	176		
499.4.14	142	162		
499.4.24	114	132		
499.4.34	80	100		

^{*} Variation achieved by flexing rubber finned seal joint.



Distance from finished floor level (FFL) to centre of float

System Connections

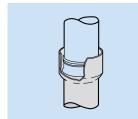
Connecting to other materials

Connecting to iron, clay or cement fibre spigot

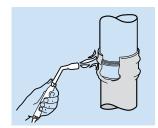
Applicable to: 126 and 226 Adaptors. For soil and waste connections, use with:

9120 Seal Ring for 82mm 9119 Seal Ring for 110mm 9119B Seal Ring for 110mm

- Place rubber seal ring over spigot to half depth of socket (Fig.68).
- Position adaptor centrally Fig. 68 over joint:



- 126.3.12 Adaptor (for 82mm soil pipe)
- 126.4.12 Adaptor (for 110mm soil pipe)
- 226.2 Adaptor (for waste pipe)
- Heat gently with a gas torch/hot air gun, all round the socket starting at the base of the socket and working upwards (Fig. 69).
- When the socket has shrunk down to the adjoining spigot, and the captured seal ring has created a raised ridge, stop applying heat (Fig. 70).
- Leave to cool before moving or applying any pressure.



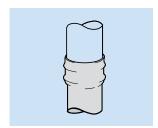
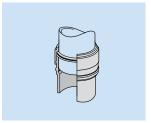


Fig. 70

Connecting to copper

- Clean pipe with 9101 Cleaning Fluid (Fig. 71).
- Replace black seal ring in PVC-u socket with appropriate red seal ring:
 - Seal ring ref. 9149 for 108mm metric copper to BS 2871



- Seal ring ref. 9145 for 4" imperial copper to BS 659
- Lubricate seal ring with 9136 Lubricant and and insert copper spigot as for standard PVC/PVC seal ring joint (see page 50).

Connecting to lead

- Clean pipe with 9101 Cleaning Fluid (Fig. 72).
- Wipe or lead weld short length of copper tube onto end of lead pipe.
- Follow procedure as for copper.

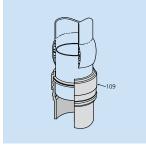
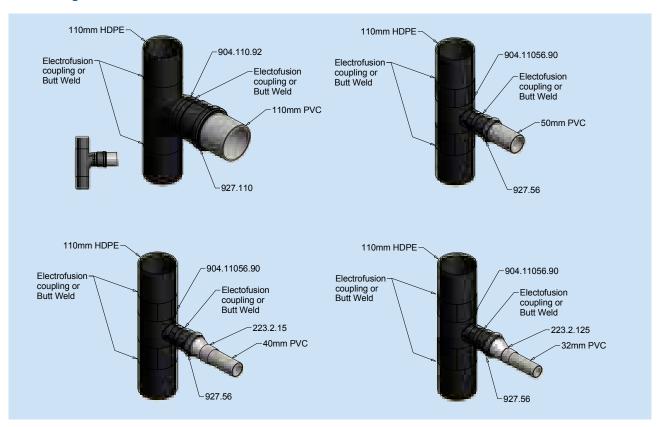


Fig. 72

Connecting to other materials

Connecting PVC to HDPE



Trapped floor gullies

Installing trapped floor gullies

Applicable to:

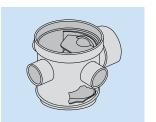
279/281 Trapped Floor Gully, and 282 and 283 Floor Gully

- Check overall height of unit with inlet in position, and adjust to suit installation location. (Do NOT solvent weld inlet at this stage) (Fig. 74/75).
- Place gully into position.
- Solvent-weld waste pipe to outlet socket.
- Bring floor screed up to level with bottom of gully inlet.
- Allow screed to set, and remove gully inlet.
- Apply waterproof mastic to underside of square flange of gully inlet.
- Solvent cement gully inlet into position.
- Tile up to inlet, and grout using waterproof grout.









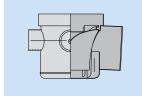


Fig. 76

Fig. 74

Fig. 77