TAGTPL2-PT | JANUARY 2008

TERRAIN

Terrain Soil and Waste

Product Guide

Introduction

Having pioneered the development of solvent-welded systems, Terrain soil and 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 and waste drainage products for commercial, industrial, housing and public sector developments, all built on the strength of our Terrain brand.

Systems include solvent-welded and push-fit options for both soil and waste drainage; overflow and trap systems; and a comprehensive range of adaptors and accessories. Products are available in a range of colours.

- Industry leading range of solvent and push-fit soil and waste solutions.
- Unique products offer unrivalled installation options.
- High quality finish colour matched to Terrain rainwater systems.
- Suitable for commercial and domestic installations.

100-Solvent Terrain Soil System

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

- Wide range of bends, branches and access fittings to meet all application requirements
- BBA certified Air Admittance Valve

100P-PushFit Terrain Soil System

82, 110 and 160mm PVC-u soil pipes and fittings for push-fit jointing

- Saves time and labour costs
- Also for use with Terrain roof outlets for rainwater drainage

200-Solvent Terrain Waste System

Solvent-welded MuPVC system

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

300-PushFit Terrain Waste System

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

500-Overflow Terrain Overflow System

Solvent-welded PVC-u system for cold, non-pressure water

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

600-Traps Terrain Traps

Polypropylene traps

- 32, 40 and 50mm polypropylene traps
- Range includes telescopic and self resealing bottle traps
- All traps have universal compression outlets which, in addition to all Terrain waste pipes, will accept: other MuPVC waste pipe

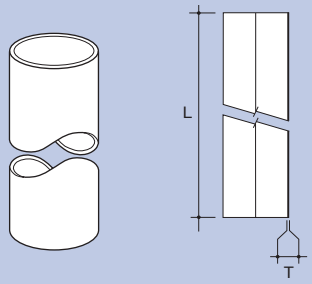
TERRAIN

Contents

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

Terrain Soil Systems

SOIL PIPE



Plain ended.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

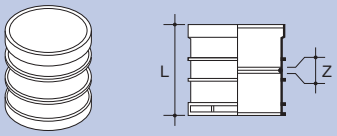
size(mm)	L	T (min)	Code	Col	Pk/St
82	3m	3.2	**100.3.30**	**G**BW	2/88
82	4m	3.2	**100.3.40**	**G**BW	2/88
110	3m	3.2	**100.4.30**	**G**BWR	2/48
110	4m	3.2	**100.4.40**	**G**BWR	2/48
160	3m	3.3	**100.6.30**	G	1/33
160	4m	3.3	**100.6.40**	G	1/33

RING SEAL ADAPTOR

Converts any Terrain solvent socket to a ring seal expansion socket.

size(mm)	A	Code	Col	Pk/bx
82	21	**109.3**	**GB**	5/120
110	21	**109.4**	GBW**R**	5/180
160	26	**109.6**	G	5/60

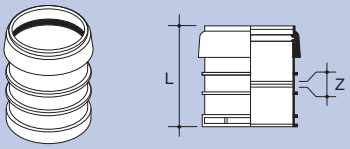
STRAIGHT COUPLER DOUBLE SOCKET



Double solvent socket.

size(mm)	L	Z	Code	Col	Pk/bx
82	92	3	**110.3**	G**BW**	5/85
110	102	3	**110.4**	GBW**R**	5/60
160	160	8	**110.6**	G	–/6

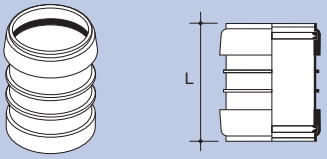
EXPANSION COUPLER



To allow expansion in longer pipe runs.

size(mm)	L	Z	Code	Col	Pk/bx
82	113	3	**111.3**	**GBW**	5/65
110	123	3	**111.4**	G**BW**	–/10
160	210	8	**111.6**	G	–/3

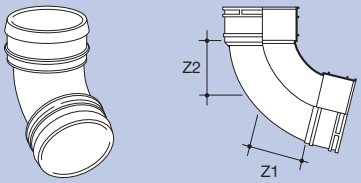
SLIP COUPLER



Double ring seal socket.

size(mm)	L	Code	Col	Pk/bx
82	134	**111.S.3**	G	5/30
110	144	**111.S.4**	GB	5/20
160	210	**111.S.6**	G	–/5

SWEPT BEND DOUBLE SOCKET



(82mm) 92½° and 135° as standard.
(110mm) 92½°, 104°, 112½° and 135° as standard.

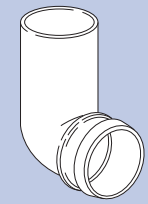
size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
82	92½	102	98	**101.3.92**	G**BW**	5/40
110	92½	75	83	**101.4.92**	GBW**R**	–/10
160	92½	178	184	**101.6.92**	G	–/2
110	104	80	76	**101.4.104**	**G**	5/20
110	112½	65	63	**101.4.112**	**GB**	5/20
82	135	25	25	**101.3.135**	G**BW**	5/50
110	135	21	30	**101.4.135**	GBW**R**	5/30
160	135	44	44	**101.6.135**	G	–/4

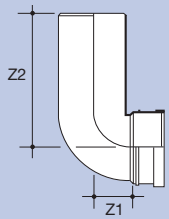
*£ per metre is for estimating purposes only.

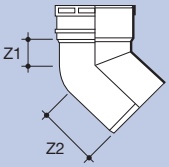
G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Soil Systems

SPIGOT SOCKET BENDS







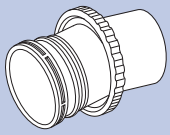
Long tail.

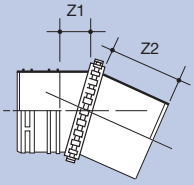
size(mm)	angle°	Z1	Z2 (max)	Z2 (min)	Code	Col	Pk/bx
82	92½	41	152	97	**107.3.92**	G	5/40
110	92½	57	197	110	**107.4.92**	GBW	–/10

size(mm)	angle°	Z1	Z2 (max)	Z2 (min)	Code	Col	Pk/bx
110	135	42	85		**107.4.135**	GBW	–/15
160	135	60	130		**107P.6.135**	G	1/8

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

VARIABLE BEND SPIGOT/SOCKET

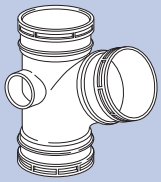


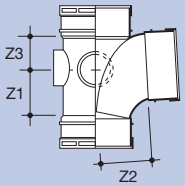


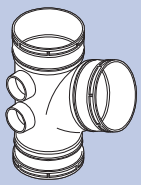
Adjustable 0-25°.

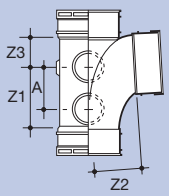
size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
110	0-25	45	110	**107.4.025**	G	5/25
Double spigot						
110	0-25	45	110	**101.4.025**	G	5/20

SINGLE EQUAL BRANCH TRIPLE SOCKET









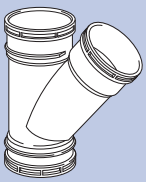
With boss connections.

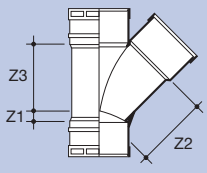
104.3.92 2 boss horns
104.4.92 3 boss horns
104.4.924 4 boss horns
104.6.92 6 boss horns

Connect to boss horns using 117 boss adaptors (see page 11)

size(mm)	angle°	Z1	Z2	Z3	A	Code	Col	Pk/bx
82	92½	70	83	35		**104.3.92**	GBW	5/25
82	135	19	108	102		**104.3.135**	GB	5/25
110	92½	82	82	54		**104.4.92**	GBWR	7
110	92½	101	96	50	74	**104.4.924**	GBW	5/150
160	92½	184	178	160		**104.6.92**	G	4/72

SINGLE EQUAL BRANCH



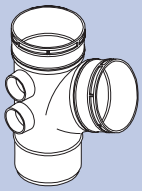


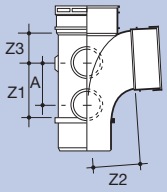
No waste boss connections.

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
110	104	77	74	72	**104.4.104**	G	5/10
110	135	25	137	137	**104.4.135**	GBW	–/6
160	135	53	198	198 (PUSH FIT)	**104.6.135**	G	3/54

Terrain Soil Systems

SINGLE BRANCH SPIGOT OUTLET





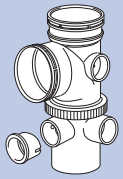
With boss connections.

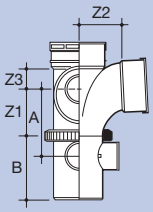
4 boss horns.

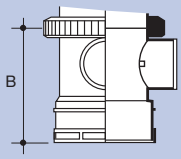
size(mm)	angle°	A	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	74	103	96	50	**104.104.92**	GB	–/4

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

SINGLE EQUAL BRANCH VARIABLE BOSS







2 boss horns
2 waste sockets.

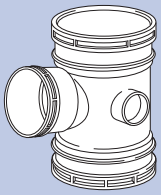
Spigot outlet

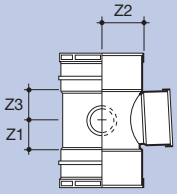
size(mm)	angle°	A	B	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	142	140	91	83	59	**104.412.92**	G	–/4

Socket outlet

size(mm)	angle°	A	B	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	142	140	91	83	59	**104.422.92**	G	–/3

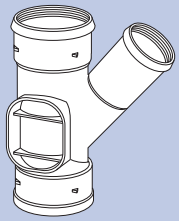
SINGLE UNEQUAL BRANCH TRIPLE SOCKET

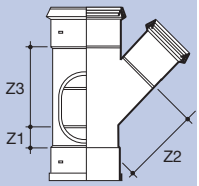




2 boss horns.

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
160/110	92½	59	87	62	**104.64.92**	G	–/3

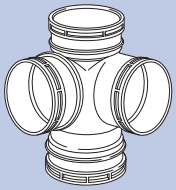


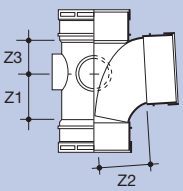


No waste boss connections.

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
160/110	135	70	173	164	**104.64.135**	G	–/2

CORNER BRANCH TRIPLE SOCKET





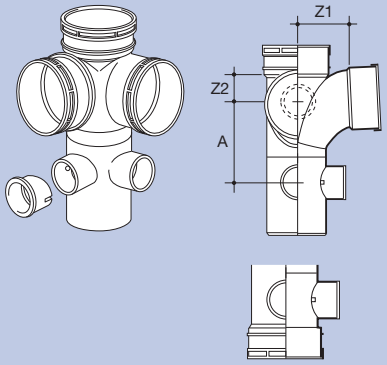
1 boss horn.

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	94	83	59	**106.490.92**	G	5

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Soil Systems

CORNER BOSS BRANCH



1 boss horn. 2 waste sockets.

Spigot outlet

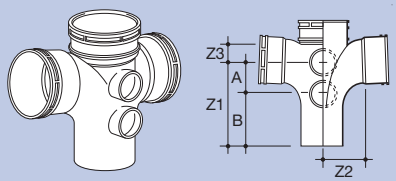
size(mm)	angle°	A	Z1	Z2	Code	Col	Pk/bx
110	92½	120	83	59	**106.490.12**	G	7/126

Socket outlet

size(mm)	angle°	A	Z1	Z2	Code	Col	Pk/bx
110	92½	120	83	59	**106.490.22**	G	–/3

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

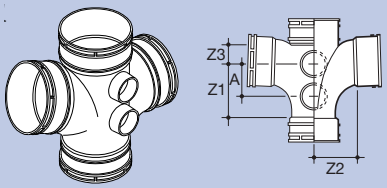
DOUBLE BRANCH



4 boss horns.

Spigot outlet

size(mm)	angle°	A	B	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	75	128	203	96	50	**106.104.92**	G	2/60



4 boss horns.

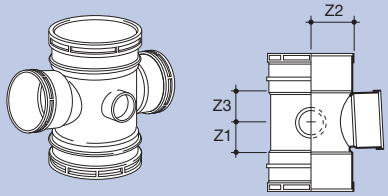
Socket outlet

size(mm)	angle°	A	B	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	74	–	138	95	50	**106.4.92**	GBW	2/60

No bosses.

size(mm)	angle°	A	B	Z1	Z2	Z3	Code	Col	Pk/bx
110	135	–	–	25	137	137	**106.4.135**	G	–/3

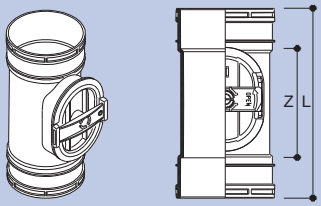
DOUBLE UNEQUAL BRANCH



2 boss horns.

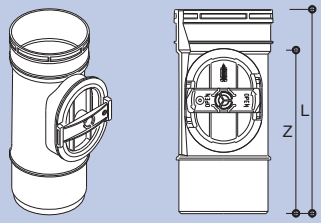
size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
160/110	92½	59	87	62	**106.64.92**	G	–/2

ACCESS PIPE DOUBLE SOCKET



size(mm)	L	Z	Code	Col	Pk/bx
110	216	115	**138.4**	GBWR	–/10

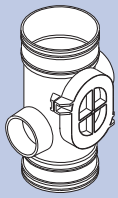
ACCESS PIPE SPIGOT OUTLET

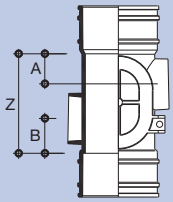


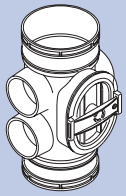
size(mm)	L	Z	Code	Col	Pk/bx
110	216	166	**139.4**	GB	–/10

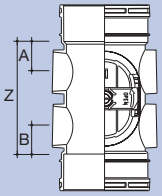
Terrain Soil Systems

ACCESS PIPE CONNECTOR









2 boss horns.

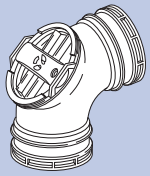
size(mm)	A	B	Z	Code	Col	Pk/bx
82	41	39	120	137.3	GBW	5/25

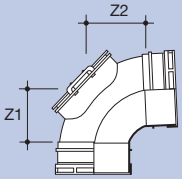
4 boss horns.

size(mm)	A	B	Z	Code	Col	Pk/bx
110	41	35	149	137.4	GBW	5/15

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

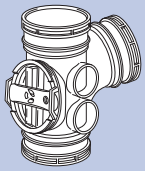
ACCESS BEND DOUBLE SOCKET

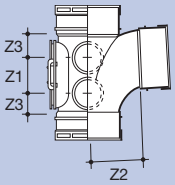




size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
110	92½	102	98	103.4.92	GBW	5/15

SINGLE ACCESS BRANCH TRIPLE SOCKET

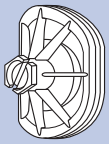


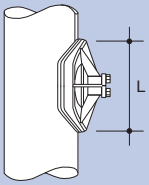


4 boss horns.

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	99	96	50	105.4.92	GB	–/6

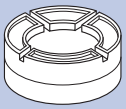
ACCESS DOOR

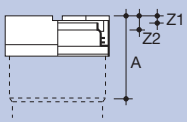




size(mm)	L	hole saw ø	Code	Col	Pk/bx
82	114	48	135.3	G	5/90
110	152	73	135.4	GB	5/45
160	152	73	135.6	G	5/50

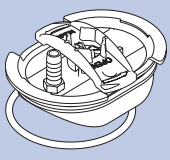
ACCESS CAP

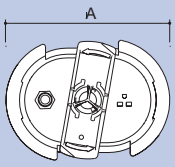




size(mm)	A	Z1	Z2	Code	Col	Pk/bx
82	83	16	32	136.3	GW	5/70
110	97	21	46	136.4	GBWR	5/30
160	122	22	42	136.6	G	5/35

ACCESS DOOR WITH TEST NIPPLE





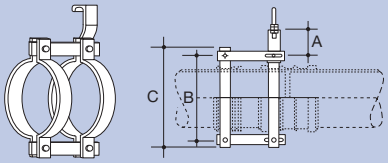
Standard oval access door with test nipple for manometer connection.

A	Code	Col	Pk/bx
127	6592/DVW	GBWR	1

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Soil Systems

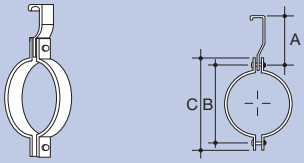
THERMAL MOVEMENT LIMITER



COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	A	B	C	Code	Col	Pk/bx
82	100	129	154	**190.3**	**Self**	1/20
110	100	158	178	**190.4**	**Self**	5/15
160	100	232	260	**190.6**	**Self**	1/5

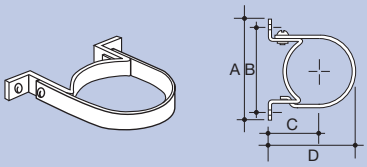
INTERMEDIATE SUPPORT BRACKET



To support horizontal pipework.

size(mm)	A	B	C	Code	Col	Pk/bx
82	100	129	154	**191.3**	**Self**	1/30
110	100	158	178	**191.4**	Self	1/20
160	100	232	260	**191.6**	**Self**	–/10

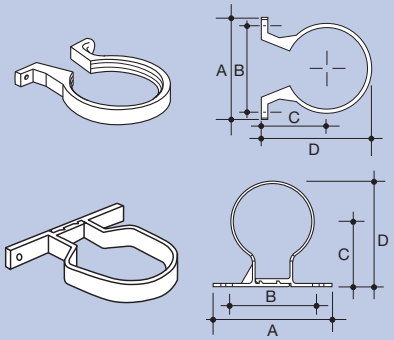
TWO-PIECE PIPE BRACKET



Galvanised steel

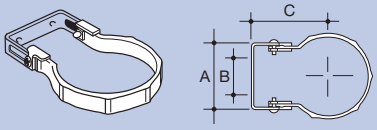
size(mm)	A	B	C	D	Code	Col	Pk/bx
82	140	114	76	124	**140.3**	**Self**	10/40
110	175	147	89	152	**140.4**	Self	10/30
160	216	196	114	197	**140.6**	Self	5/25

ONE-PIECE PIPE BRACKET



size(mm)	A	B	C	D	Code	Col	Pk/bx
82	132	110	76	117	**143.3**	GB**W**	5/150
110	164	141	90	155	**143.4**	GBW**R**	10/80

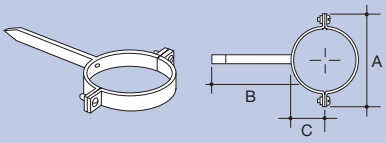
ADJUSTABLE PIPE BRACKET PLASTIC-COATED



Both have self coloured backplates.

size(mm)	A	B	C (max)	C (min)	Code	Col	Pk/bx
110	99	64	108	80	**144.4**	B	1/30

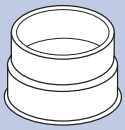
PIPE BRACKET GALVANISED DRIVE-IN

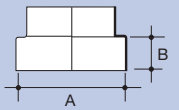


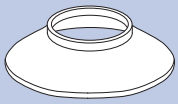
size(mm)	A	B	C	Code	Col	Pk/bx
110	178	152	59	**142.4**	**Self**	10/20

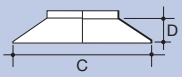
Terrain Soil Systems

WEATHERING APRON









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

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

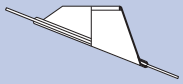
For lead slates

size(mm)	A	B	Code	Col	Pk/bx
82	102	38	**131.3**	**GB**	5/60
110	128	48	**131.4**	**GBWR**	5/90
160	179	51	**131.6**	**G**	5/50

For asphalt upstand

size(mm)	C	D	Code	Col	Pk/bx
82	204	59	**131.3.200**	**G**	5/35
110	203	46	**131.4.200**	G	5/30

WEATHERING SLATES



Makes watertight seal around pipe at roof level.
Available for flat or pitched roof.

Colours: Base – Aluminium
Cone – Black

For flat roof

size(mm)	Plate size	Code	Col	Pk/bx
82 to 110	406 x 406	**149.16.00**	**Alu/B**	–/10

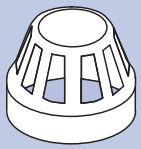
For sloping roof (min 30°)

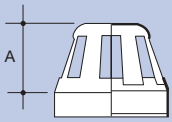
size(mm)	Plate size	Code	Col	Pk/bx
82 to 110	457 x 457	**149.18.22**	Alu/B	1/10

For sloping roof (min 17°)

size(mm)	Plate size	Code	Col	Pk/bx
82 to 110	610 x 610	**149.24.22**	**Alu/B**	1/10

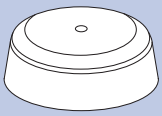
VENT COWL

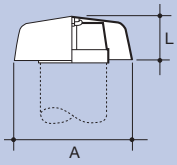




size(mm)	A	Code	Col	Pk/bx
82	51	**150.3**	**GB**	5/120
110	64	**150.4**	**GBWR**	5/185
160	83	**150.6**	**G**	5/65

DUCT COWL

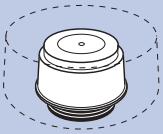


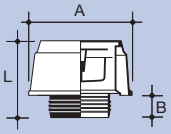


Stops rainwater from entering ventilation ducts.

size(mm)	A	L	Code	Col	Pk/bx
110	205	80	**152.4**	**GBR**	5/25

AUTOMATIC AIR ADMITTANCE VALVE



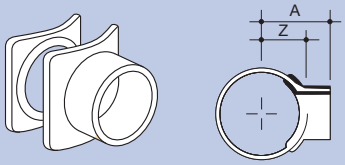


Allows air to enter soil system, protecting water seals in traps from effects of negative pressure.

size(mm)	A	B	L	Code	Col	Pk/bx
82/110	160	50	138	**153.3.4**	G	5/15
Polystyrene Cover				**153.3.4I**	Self	1

Terrain Soil Systems

TWO PART WASTE BOSS SOLVENT SOCKET



For 32mm waste pipe

size(mm)	A	Z	hole saw ø	Code	Col	Pk/bx
110/32	79	53	48	112.4.125	G	5/200

For 40mm waste pipe

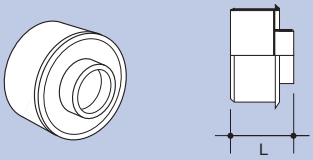
size(mm)	A	Z	hole saw ø	Code	Col	Pk/bx
82/40	69	39	57	112.3.15	G	5/150
110/40	82	53	57	112.4.15	G	5/150

For 50mm waste pipe

size(mm)	A	Z	hole saw ø	Code	Col	Pk/bx
110/50	86	53	70	112.4.2	GW	5/100
160/50	110	77	70	112.6.2	G	5/100

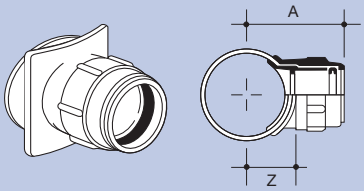
COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

SOCKET PLUG



size(mm)	L	Code	Col	Pk/bx
110	69	130.4	GBW	5/50
160	92	130.6	G	5/35

SELF LOCKING BOSS SEAL RING SOCKET



For 32mm waste pipe

size(mm)	A	Z	hole saw ø	Code	Col	Pk/bx
110/32	111	60	60	122.4.125	GW	5/130

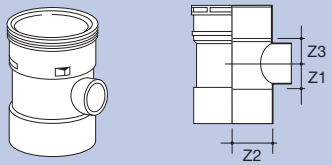
For 40mm waste pipe

size(mm)	A	Z	hole saw ø	Code	Col	Pk/bx
110/40	111	60	64	122.4.15	GB	5/100

For 50mm waste pipe

size(mm)	A	Z	hole saw ø	Code	Col	Pk/bx
110/50	119	60	75	122.4.2	GBW	5/60

SINGLE BOSSED PIPE CONNECTOR DOUBLE SOCKET



For 32mm waste pipe

size(mm)	Z1	Z2	Z3	Code	Col	Pk/bx
110/32	30	56	31	120.4.125	GBWR	5/30

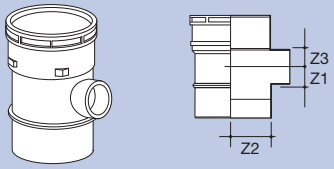
For 40mm waste pipe

size(mm)	Z1	Z2	Z3	Code	Col	Pk/bx
110/40	30	56	31	120.4.15	GBWR	5/30

For 50mm waste pipe

size(mm)	Z1	Z2	Z3	Code	Col	Pk/bx
110/50	30	59	31	123.4	GBW	5/30

SINGLE BOSSED PIPE CONNECTOR SPIGOT



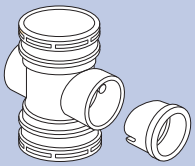
For 40mm waste pipe

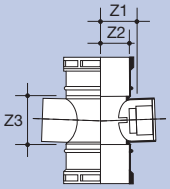
size(mm)	Z1	Z2	Z3	Code	Col	Pk/bx
110/40	28	56	27	120.412.15	GR	5/30

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Soil Systems

DOUBLE BOSSED PIPE CONNECTOR DOUBLE SOCKET





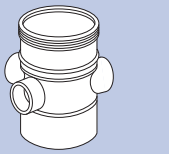
2 50mm waste sockets
2 blanking plugs

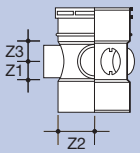
For 50mm waste pipes (40mm with adaptor)

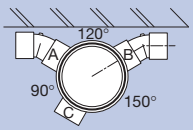
COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

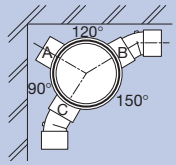
size(mm)	Z1	Z2	Z3	Code	Col	Pk/bx
82/50	50	38	65	**120.3.2**	GB	5/30

TRIPLE BOSSED PIPE CONNECTOR DOUBLE SOCKET



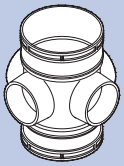


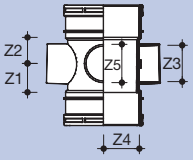




size(mm)	Z1	Z2	Z3	Code	Col	Pk/bx
110/40	30	56	30	**121.4.15**	GB	5/25

FOUR-WAY BOSS PIPE DOUBLE SOLVENT SOCKET

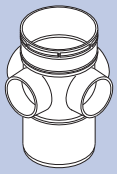


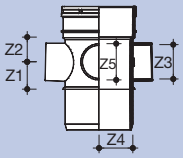


2 boss horns, 2 waste sockets.

size(mm)	Z1	Z2	Z3	Z4	Z5	Code	Col	Pk/bx
110	44	40	56	55	59	**120.4.2**	G	5/9

FOUR-WAY BOSS PIPE SOLVENT SOCKET/SPIGOT

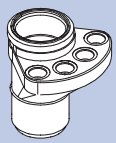


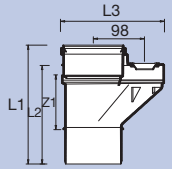


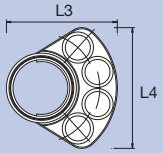
2 boss horns, 2 waste sockets.

size(mm)	Z1	Z2	Z3	Z4	Z5	Code	Col	Pk/bx
110	44	40	56	55	59	**120.412.2**	G	5/9

UNIVERSAL SOIL MANIFOLD





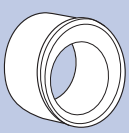


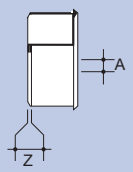
For Solvent waste connections
For connection of BS 5254/BS 5255 40mm waste pipes at floor level. Incorporates 4 inlets to accept 40mm waste pipes without need for adaptors. Use with Swivel Elbow or Swept Bend.

For Pushfit waste connections see page 18

size(mm)	L1	L2	L3	L4	Z1	Code	Col	Pk/bx
110	228	189	199	217	105	**119.412.15**	G	1/5

SOCKET REDUCER SOCKET/SPIGOT



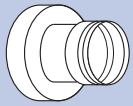


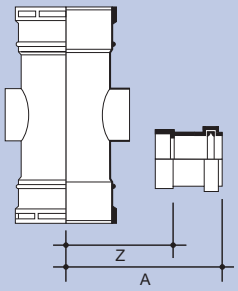
size(mm)	A	Z	Code	Col	Pk/bx
82/50	11	3	**124.3.2**	GW	5/90
110/50	24	3	**124.4.2**	GBW	5/60
110/82	11	3	**124.4.3**	GBW	5/60
160/110	22	25	**124.6.4**	G	5/45

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Soil Systems

STRAIGHT BOSS ADAPTOR RING SEAL SOCKET





COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

For 32mm waste pipe

use on stack size(mm)	A†	Z†	hole saw ø	Code	Col	Pk/bx
82	107	61	51	**117.125**	GBW	5/180
110	119	74	51	**117.125**	GBW	5/180
160	144	99	51	**117.125**	GBW	5/180

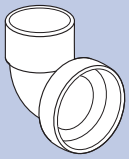
For 40mm waste pipe

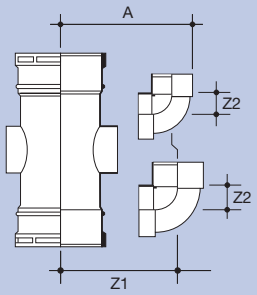
use on stack size(mm)	A†	Z†	hole saw ø	Code	Col	Pk/bx
82	107	61	51	**117.15**	GBWR	5/160
110	119	74	51	**117.15**	GBWR	5/160
160	144	99	51	**117.15**	GBWR	5/160

For 50mm waste pipe

use on stack size(mm)	A†	Z†	hole saw ø	Code	Col	Pk/bx
82	107	61	51	**117.2**	GBW	5/120
110	119	74	51	**117.2**	GBW	5/120
160	144	99	51	**117.2**	GBW	5/120

BOSS ADAPTOR BEND SOLVENT SOCKET





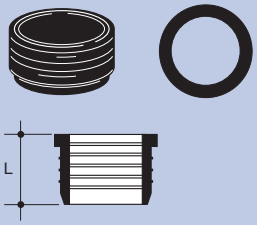
For 40mm waste pipe

use on stack size(mm)	A	Z1	Z2	hole saw ø	Code	Col	Pk/bx
82	106	82	22	51	**117.15.90**	GBW	5/125
110	119	95	22	51	**117.15.90**	GBW	5/125
160	145	121	22	51	**117.15.90**	GBW	5/125

For 50mm waste pipe

use on stack size(mm)	A	Z1	Z2	hole saw ø	Code	Col	Pk/bx
82	120	89	30	51	**117.2.90**	GBW	5/190
110	132	101	30	51	**117.2.90**	GBW	5/190
160	158	127	30	51	**117.2.90**	GBW	5/190
82	–	80	11	51	**117.2.150**	G	5/190
110	–	92	11	51	**117.2.150**	G	5/190
160	–	118	11	51	**117.2.150**	G	5/190

ADAPTOR TO UNDERGROUND DRAIN

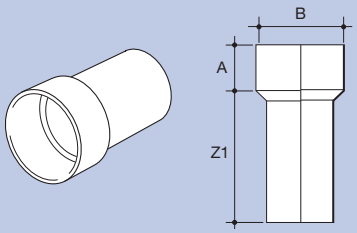


Push fit into bore of underground pipe.

size(mm)	L	Code	Col	Pk/bx
82/110	54	**4DW3**	B	5/50

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

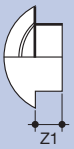
ADAPTOR TO CAST IRON SPIGOT



size(mm)	A	B	Z1	Code	Col	Pk/bx
82	60	98	240	**126.3.12**	G	5/30
110	64	127	236	**126.4.12**	G	5/15

Terrain Soil Systems

ADAPTOR SADDLES



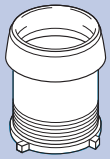
Used with 117 Waste Adaptors to enable direct connection of 32mm and 40mm waste pipe to soil pipe.

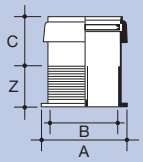
COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

For 40mm waste pipe

size(mm)	Z1	Code	Col	Pk/bx
110/40	29	**115P.4**	GR	5/140

PVC-U CAULKING BUSH

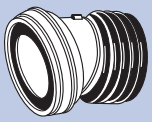


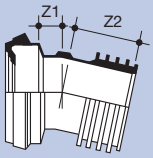


To connect soil pipe to sockets of other material. Sold caulked into sockets.

size(mm)	A	B	C	Z	Code	Col	Pk/bx
110	133	124	63	67	**132.4**	G	5/40

WC MANIFOLD CONNECTORS FIN SEAL SPIGOT

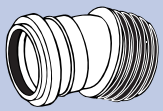


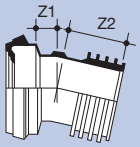


When used in conjunction with a branch 104, up to seven WC pans can be connected either side of the soil stack.

size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
110	5	14	58	**129.4.05**	W	–/6
110	14	19	58	**129.4.14**	W	–/6
110	24	24	58	**129.4.24**	W	5/10
110	34	26	70	**129.4.34**	W	5/10

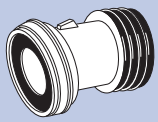
DUOFIX WC MANIFOLD BEND CONNECTORS FIN SEAL SPIGOT

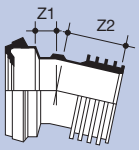




size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
90/110	5	52	65	**107.35.05**	B	5/10
90/110	14	57	63	**107.35.14**	B	5/10
90/110	24	60	70	**107.35.24**	B	5/10
90/110	34	64	78	**107.35.34**	B	5/10
90/110	9	6.4	62.3	**F107.35.09**	B	1/24
90/110	18	11.3	67.4	**F107.35.18**	B	1/12
90/110	29	18.3	77.3	**F107.35.29**	B	1/12

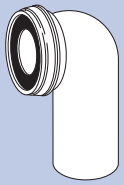
WC CONNECTORS 14° FIN SEAL SPIGOTS

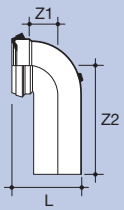




size(mm)	Z1	Z2 (max)	Z2 (min)	Code	Col	Pk/bx
110	19	90	57	**129.4.104**	W	5/30

WC CONNECTORS SPIGOT OUTLET



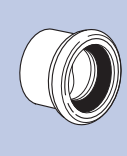


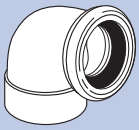
For connection of WC pans to ***existing*** soil or waste pipework previously connected to traditional 'S' mode pan.

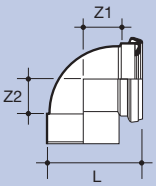
size(mm)	angle°	L	Z1	Z2	Code	Col	Pk/bx
110	98	150	63	240	**129.4.90**	W	–/5

Terrain Soil Systems

WC CONNECTORS SOCKET OUTLET





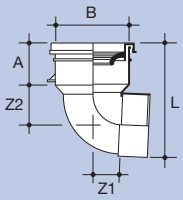


COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	angle°	L	Z1	Code	Col	Pk/bx
110	2½	101	12	**128.4.02**	W	5/50

size(mm)	angle°	L	Z1	Z2	Code	Col	Pk/bx
110	90	155	61	55	**128.4.90**	W	5/25

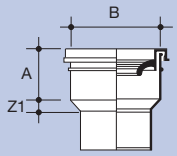
90° WC TURNED CONNECTOR SOCKET OUTLET



For connecting non-BS 5503 WC pans to soil pipe.

size(mm)	angle°	A	B	L	Z1	Z2	Code	Col	Pk/bx
110	92½	72	133	207	52	72	**102.4.5**	W	5/20

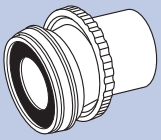
WC STRAIGHT CONNECTOR SOCKET OUTLET

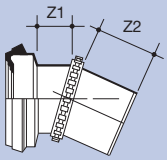


For connecting non-BS 5503 WC pans to soil pipe.

size(mm)	A	B	Z1	Code	Col	Pk/bx
110	52	133	12	**125.4.5**	W	5/25

WC VARIABLE CONNECTOR VARIABLE BEND





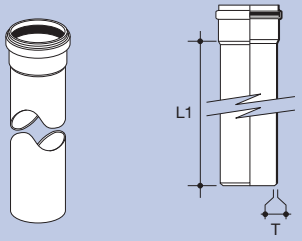
Adjustable 0-25°.

size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
110	0-25	45	86	**128.4.025**	W	5/25

Terrain Soil Systems

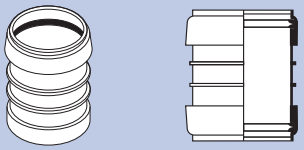
COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

SOIL PIPE SINGLE SOCKET-ENDED



size(mm)	L1	T (min)	Code	Col	Pk/St
82	3m	3.2	**100P.3.30**	**G**	1/88
82	4m	3.2	**100P.3.40**	**G**	1/88
110	3m	3.2	**100P.4.30**	**GBW**	2/67
110	4m	3.2	**100P.4.40**	**GBW**	2/67
160	3m	3.3	**100P.6.30**	**G**	1/33
160	4m	3.3	**100P.6.40**	**G**	1/33

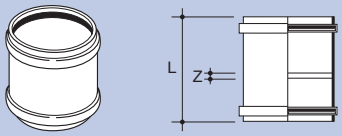
SLIP COUPLER DOUBLE SOCKET



size(mm)	Code	Col	Pk/bx
110	**111.SP4**	G	5/40

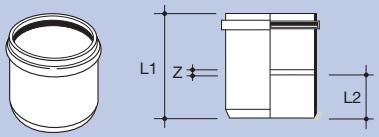
STRAIGHT COUPLER DOUBLE SOCKET

With central stop.



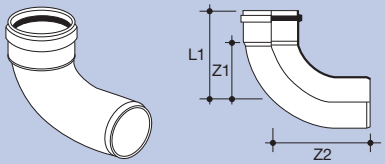
size(mm)	L	Z	Code	Col	Pk/bx
82	103	6	**110P.3**	**G**	5/30
110	129	6	**110P.4**	**GBW**	5/40
160	188	10	**110P.6**	G	–/5

PIPE END SOCKET SPIGOT/SOCKET



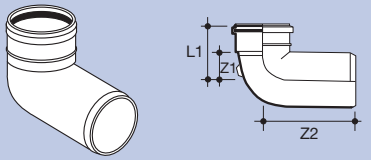
size(mm)	L1	L2	Z	Code	Col	Pk/bx
82	91	39	4	**111P.3**	**G**	5/60
110	107	48	3	**111P.4**	**GBW**	–/20

SWEPT BEND SPIGOT/SOCKET



size(mm)	angle°	L1	Z1	Z2	Code	Col	Pk/bx
82	92½	149	109	161	**101P.3.92**	**G**	5/25
110	92½	142	85	145	**101P.4.92**	**GBW**	–/10
160	92½	215	135	215	**101P.6.92**	**G**	1/4
110	112½	152	104	184	**101P.4.112**	**G**	–/10
82	135	76	36	89	**107P.3.135**	**G**	5/40
110	135	89	42	119	**107P.4.135**	**GBW**	–/15
160	135	140	60	130	**107P.6.135**	**G**	1/8

TIGHT RADIUS BEND SPIGOT/SOCKET



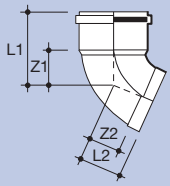
size(mm)	angle°	L1	Z1	Z2	Code	Col	Pk/bx
110	92½	113	65	197	**107P.4.92**	G	–/10

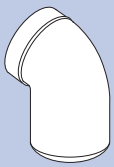
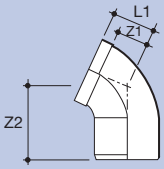
*£ per metre is for estimating purposes only.

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Soil Systems

OFFSET BEND

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

Top

size(mm)	L1	L2	Z1	Z2	Code	Col	Pk/bx
110	119	73	71	54	**101P.4T.112**	GB	5/25

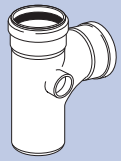
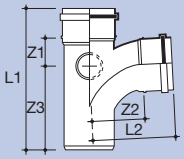
Bottom

size(mm)	L1	Z1	Z2	Code	Col	Pk/bx
110	73	54	127	**101P.4B.112**	GB	5/20

SINGLE BRANCH SPIGOT OUTLET

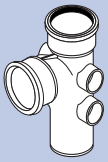
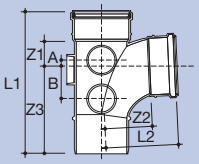
With spigot bosses.

2 boss horns.

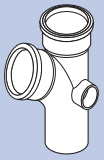
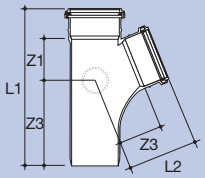



size(mm)	angle°	L1	L2	Z1	Z2	Z3	Code	Col	Pk/bx
82	92½	225	125	54	85	131	**104P.3.92**	G	5/15

5 boss horns.

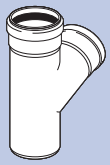
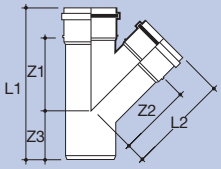
size(mm)	angle°	L1	L2	Z1	Z2	Z3	A	B	Code	Col	Pk/bx
110	92½	278	152	58	96	164	19	57	**104P.4.92**	GBW	8
160	92½	440	242	90	155	260			**104P.6.92**	G	1/4

size(mm)	angle°	L1	L2	Z1	Z2	Z3	Code	Col	Pk/bx
110	112½	349	165	95	95	184	**104P.4.112**	G	1/5

SINGLE EQUAL BRANCH PLAIN

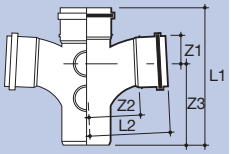
No boss connections.

size(mm)	angle°	L1	L2	Z1	Z2	Z3	Code	Col	Pk/bx
110	135	328	215	168	168	113	**104P.4.135**	G	–/6

DOUBLE EQUAL BRANCH SPIGOT OUTLET

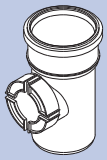
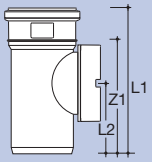
4 boss connections.

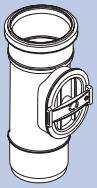
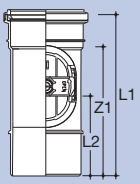



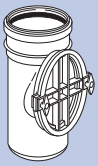
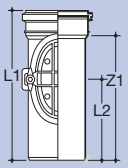
size(mm)	angle°	L1	L2	Z1	Z2	Z3	Code	Col	Pk/bx
110	92½	287	172	66	124	173	**106P.4.92**	GB	–/2

Terrain Soil Systems

ACCESS PIPE AND COVER SINGLE SOCKET

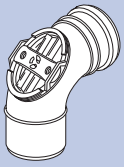
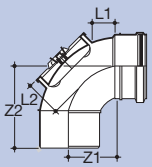



COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	L1	L2	Z1	Code	Col	Pk/bx
82	193	97	153	**139P.3**	**G**	–/10
110	222	114	175	**139P.4**	**GB**	–/10
160	366	198	305	**139P.6**	G	1/5

Access door aperture size:
172 x 130mm diameter – secured by 2 screws.

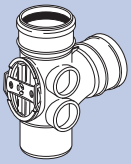
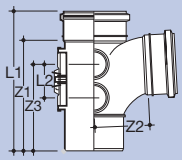
ACCESS BEND SINGLE SOCKET

Access door aperture size:
110 x 80mm diameter – secured by locking mechanism (use self tapping screw for anti-vandal locking).

size(mm)	angle°	L1	L2	Z1	Z2	Code	Col	Pk/bx
110	92½	41	69	91	157	**103P.4.92**	**GB**	5/15

ACCESS SINGLE EQUAL BRANCH SINGLE OUTLET

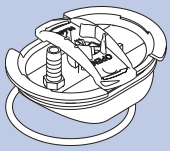
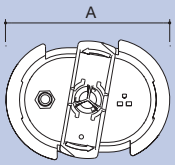



With waste bosses.
4 boss horns.

Access door aperture size:
114 x 80mm diameter – secured by locking mechanism (use self tapping screw for anti-vandal locking).

size(mm)	L1	L2	Z1	Z2	Z3	Code	Col	Pk/bx
110	136	74	87	105	172	**105P.4.92**	G	–/4

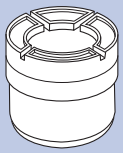
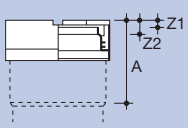
ACCESS DOOR WITH TEST NIPPLE

Standard oval access door with test nipple for manometer connection.

A	Code	Col	Pk/bx
127	**6592/DVW**	GBWR	1

ACCESS CAP

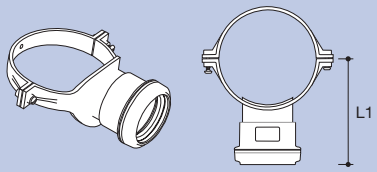



size(mm)	A	Z1	Z2	Code	Col	Pk/bx
82	81	26	13	**136P.3**	**G**	5/40
110	102	34	10	**136P.4**	**GBW**	5/40
160	134	34	10	**136P.6**	**G**	1/15

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Soil Systems

STRAP-ON BOSS



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

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

For 32mm waste pipe

size(mm)	L1	hole saw ø		Code	Col	Pk/bx
110/32	116	60	Part No. **9105.237**	**112P.4.125**	GBW	5/100

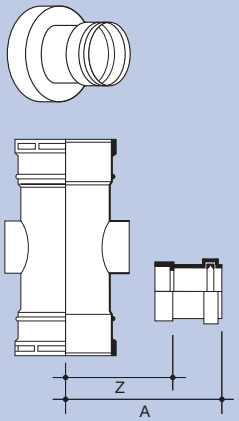
For 40mm waste pipe

size(mm)	L1	hole saw ø		Code	Col	Pk/bx
110/40	116	60	Part No. **9105.237**	**112P.4.15**	GBW	5/90

For 50mm waste pipe

size(mm)	L1	hole saw ø		Code	Col	Pk/bx
110/50	120	60	Part No. **9105.237**	**112P.4.2**	GB	5/85

BOSS ADAPTORS STRAIGHT



For 32mm waste pipe

size(mm)	use on stack	A†	Z†	hole saw ø	Code	Col	Pk/bx
82		107	61	51	**117.125**	GBW	5/180
110		119	74	51	**117.125**	GBW	5/180
160		144	99	51	**117.125**	GBW	5/180

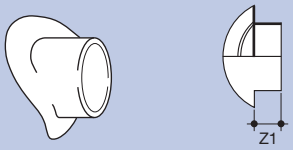
For 40mm waste pipe

size(mm)	use on stack	A†	Z†	hole saw ø	Code	Col	Pk/bx
82		107	61	51	**117.15**	GBWR	5/160
110		119	74	51	**117.15**	GBWR	5/160
160		144	99	51	**117.15**	GBWR	5/160

For 50mm waste pipe

size(mm)	use on stack	A†	Z†	hole saw ø	Code	Col	Pk/bx
82		107	61	51	**117.2**	GBW	5/120
110		119	74	51	**117.2**	GBW	5/120
160		144	99	51	**117.2**	GBW	5/120

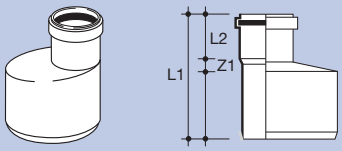
ADAPTOR SADDLES



For 40mm waste pipe

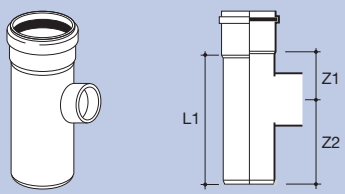
size(mm)	Z1	hole saw ø	Code	Col	Pk/bx
110/40	29	51	**115P.4**	G	5/140

REDUCERS



size(mm)	L1	L2	Z1	Code	Col	Pk/bx
82/50	117	44	15	**124P.3.2**	G	5/60
110/50	136	45	16	**124P.4.2**	GB	5/50
110/82	140	55	18	**124P.4.3**	G	5/40
160/110	233	75	44	**124P.6.4**	G	5/15

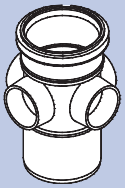
SHORT BOSSED PIPE

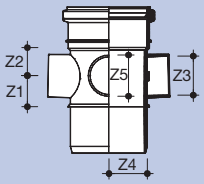


size(mm)	L1	Z1	Z2	Code	Col	Pk/bx
82	145	48	97	**123P.3**	G	5/20
110	212	43	110	**123P.4**	GB	–/10

Terrain Soil Systems

FOUR-WAY BOSS PIPE PUSH-FIT SOCKET/SPIGOT



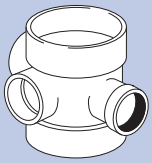


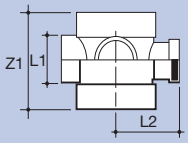
2 boss horns.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	Z1	Z2	Z3	Z4	Z5	Code	Col	Pk/bx
110	44	40	56	55	59	**120P.412.2**	G	5/15

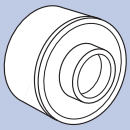
TRIPLE BOSS COLLAR

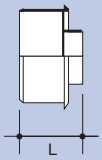




size(mm)	L1	L2	Z1	Code	Col	Pk/bx
110/40	65	95	125	**120P.4.15**	GB	5/30

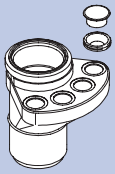
SOCKET PLUG

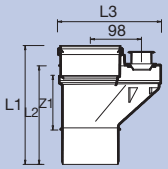


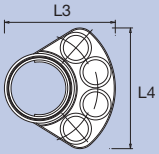


size(mm)	L	Code	Col	Pk/bx
110	69	**130.4**	GBW	5/50
160	92	**130.6**	G	5/35

UNIVERSAL SOIL MANIFOLD





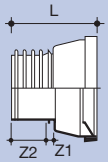


For Pushfit waste connections
For connection of BS 5254/BS 5255 32mm and 40mm waste pipes at floor level. Incorporates 4 inlets to accept 32mm or 40mm waste pipes without need for adaptors. Use with Swivel Elbow or Swept Bend. Complete with 4 sealing gaskets, and 3 removable plugs.

For Solvent waste connections see page 10

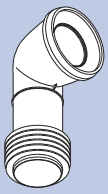
size(mm)	L1	L2	L3	L4	Z1	Code	Col	Pk/bx
110	228	189	199	217	105	**119P.4.15**	G	–/5

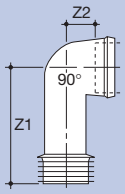
WC CONNECTOR STRAIGHT FIN SEAL



size(mm)	L	Z1	Z2	Code	Col	Pk/bx
110	125	10	56	**129P.4.00**	W	5/40

WC CONNECTOR 90° FIN SEAL BEND





size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
110	90	230	60	**129P.4.90**	W	–/5

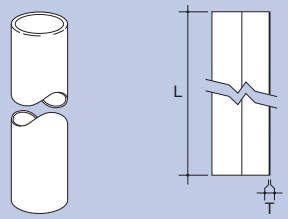
Full range of WC Connectors available, page 12–13.

For pipe brackets see page 7.

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Waste Systems

WASTE PIPE

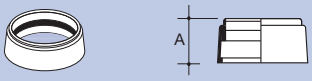


Plain-ended.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	L	T (min)	Code	Col	Pk/bx
32	3m	1.8	**200.125.30**	GW	5
32	4m	1.8	**200.125.40**	GBWR	5
40	3m	1.9	**200.15.30**	GW	5
40	4m	1.9	**200.15.40**	GBWR	5
50	3m	2.0	**200.2.30**	W	5
50	4m	2.0	**200.2.40**	GBW	5

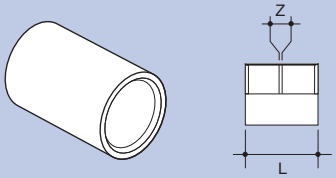
SEAL RING ADAPTOR



To convert 50mm 207.2 spigot socket bends to expansion fitting.

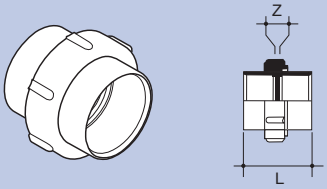
size(mm)	A	Code	Col	Pk/bx
50	65	**209.2**	**GW**	5/250

STRAIGHT COUPLER DOUBLE SOCKET



size(mm)	L	Z	Code	Col	Pk/bx
32	52	2	**210.125**	GBWR	10/350
40	58	2	**210.15**	GBWR	5/240
50	65	2	**210.2**	GBW	10/140

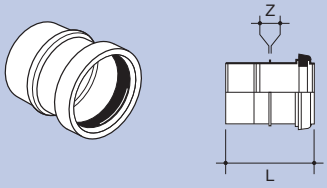
UNION DOUBLE SOCKET



Threaded union for easy disconnection if required.

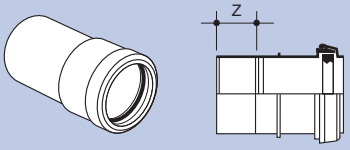
size(mm)	L	Z	Code	Col	Pk/bx
32	59	8	**211.125**	G	5/200
40	65	8	**211.15**	G	5/130
50	73	8	**211.2**	G	5/90

EXPANSION COUPLER SEAL RING AND SOLVENT SOCKET



size(mm)	L	Z	Code	Col	Pk/bx
32	67	4	**225.125**	GW	10/240
40	70	4	**225.15**	GW	10/180
50	77	4	**225.2**	GW	5/100

SPIGOT/SOCKET COUPLER



To create a close-coupled expansion joint for all MuPVC fittings.

size(mm)	Z	Code	Col	Pk/bx
32	27	**227.125**	GW	5/250
40	30	**227.15**	GW	5/180
50	35*	**227.2**	G	5/100

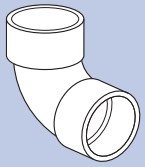
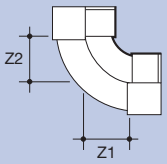
*dimension includes expansion

*£ per metre is for estimating purposes only.

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Waste Systems

SWEPT BEND DOUBLE SOCKET

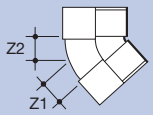



91¼°, 135° and 165° as standard.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

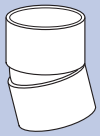
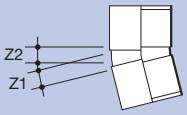
For 91¼° swept bend

size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
32	91¼	34	34	**201.125.91**	GBWR	20/220
40	91¼	38	38	**201.15.91**	GBWR	5/140
50	91¼	45	45	**201.2.91**	GBW	5/70

For 135° swept bend

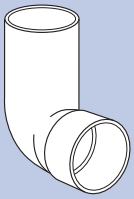
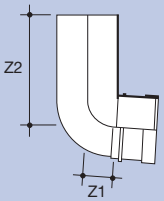
size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
32	135	10	10	**201.125.135**	GBWR	10/280
40	135	11	11	**201.15.135**	GBWR	5/200
50	135	14	14	**201.2.135**	GBW	5/100

For 165° swept bend

size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
32	165	5	5	**201.125.165**	G	10/320
40	165	5	5	**201.15.165**	G	5/220
50	165	6	6	**201.2.165**	G	5/250

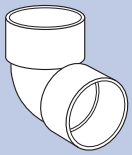
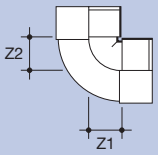
SPIGOT/SOCKET BENDS

To change pipe direction in limited-space situations:
92½° and 150° as standard.

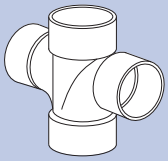
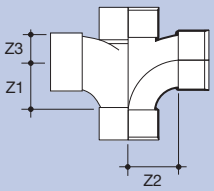
size(mm)	angle°	Z1	Z2 (max)	Z2 (min)	Code	Col	Pk/bx
32	92½	19	92	46	**207.125.92**	GBW	5/180
40	92½	21	95	52	**207.15.92**	GBW	5/120
50	92½	29	102	64	**207.2.92**	GW	5/60
32	135	8	30	–	**207.125.135**	W	5/300
40	135	11	38	–	**207.15.135**	GBW	5/180
50	135	13	46	–	**207.2.135**	GW	5/100
32	150	8	52	29	**207.125.150**	GB	10/260
40	150	9	49	33	**207.15.150**	GB	5/200

KNUCKLE BEND DOUBLE SOCKET

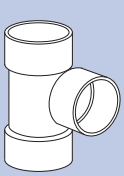
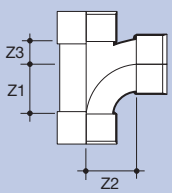
size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
32	91¼	19	19	**202.125.91**	GBWR	10/280
40	91¼	22	22	**202.15.91**	GBWR	10/200

SWEPT CROSS ALL SOCKET

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
40	91¼	44	44	20	**206.15.91**	GW	5/105
50	91¼	51	51	25	**206.2.91**	GW	5/55
50	135	13	71	71	**206.2.135**	G	5/55

SWEPT TEE ALL SOCKET

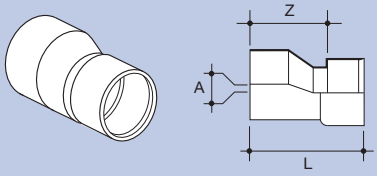
91¼° and 135° as standard.

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
32	91¼	30	30	19	**204.125.91**	GBWR	5/120
40	91¼	32	35	22	**204.15.91**	GBWR	5/90
50	91¼	43	43	29	**204.2.91**	GBW	5/45
32	135	8	48	48	**204.125.135**	GW	5/120
40	135	10	57	57	**204.15.135**	GW	5/80
50	135	13	71	71	**204.2.135**	GBW	5/80

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Waste Systems

LEVEL INVERT TAPER

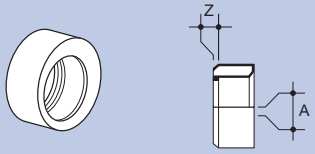


To reduce socket of any standard fitting to accept a smaller size pipe. Larger end spigot and smaller end socket.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

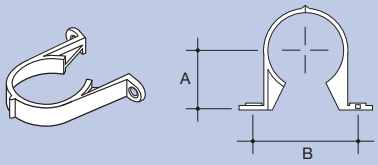
size(mm)	A centres	L	Z	Code	Col	Pk/bx
40/32	4	73	47	**223.15.125**	**G**	5/230
50/32	10	98	73	**223.2.125**	**GW**	10/190
50/40	7	90	62	**223.2.15**	G	10/160

SOCKET REDUCER



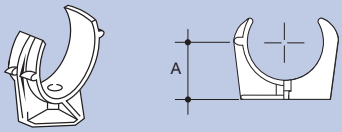
size(mm)	A centres	Z	Code	Col	Pk/bx
40/32	0	3	**224.15.125**	**GBWR**	20/640
50/32	7	6	**224.2.125**	**GBW**	10/350
50/40	4	3	**224.2.15**	**GBW**	10/350

PIPE FIXING CLIP



size(mm)	A	B	Code	Col	Pk/bx
32	33	54	**240.125**	**GBWR**	20/1000
40	37	60	**240.15**	**GBWR**	20/800
50	43	76	**240.2**	**GBW**	10/500

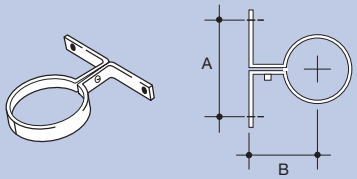
EXPANSION FITTING FIXING CLIP



To secure control thermal expansion at regular points along pipework.

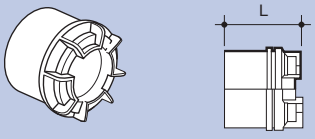
size(mm)	A	Code	Col	Pk/bx
32	33	**242.125**	**GW**	10/750
40	37	**242.15**	**W**	10/500
50	43	**242.2**	**GW**	10/300

PIPE AND FITTING BRACKET (METAL)



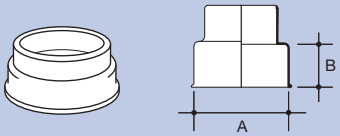
size(mm)	A	B	Code	Col	Pk/bx
32	57	44	**243.125**	**Self**	10/120
40	60	48	**243.15**	**Self**	10/100
50	75	53	**243.2**	**Self**	10/70

ACCESS PLUG



size(mm)	L	Code	Col	Pk/bx
32	47	**237.125**	**GBW**	10/350
40	54	**237.15**	**GBW**	10/320
50	56	**237.2**	**GBW**	5/180

WEATHERING APRON

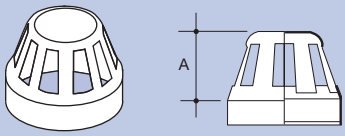


To provide weathertight cover over lead slate around 50mm waste pipe penetrating roof.

size(mm)	A	B	Code	Col	Pk/bx
50	76	38	**231.2**	**G**	5/135

Terrain Waste Systems

VENT COWL

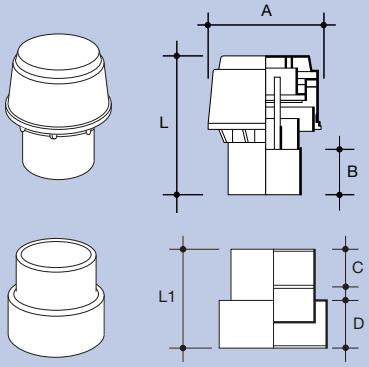


COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	A	Code	Col	Pk/bx
50	34	**250.2**	GW	5/300

AUTOMATIC AIR ADMITTANCE VALVE

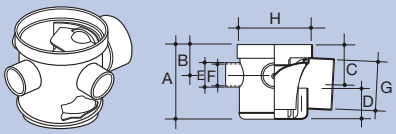
Allows air into waste system when negative pressure occurs. Helps prevent syphonage of traps.



size(mm)	A	B	L	L1	C	D	Code	Col	Pk/bx
32/40/50	65	26	80	55	25	25	**253W**	W	5/70

TRAPPED FLOOR GULLY

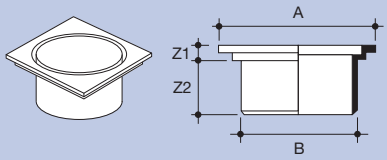
Under-floor trap (e.g. for shower areas) with 3 sockets to accept 40mm waste pipe.
Seal depth: 50mm.
Cleaning access via removable baffle with integral gasket to maintain airtight seal.



size(mm)	A	B	C	D	E	F	G	H	Code	Col	Bx
110/82	169	69	77	64	51	42	82	110	**281.43**	GT	2/20
160/110	169	70	85	69	55	50	110	160	**281.64**	GT	1/12

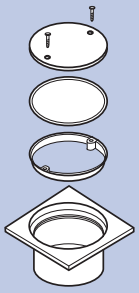
FLOOR GULLY INLETS

Two-part fitting to be set in standard-tiled floor (e.g. in shower areas). Comprises of raising piece with 50mm square top, and snap-in cover.



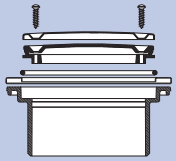
size(mm)	A	B	Z1	Z2	Code	Col	Bx
110 PVC	50x150	110	14	48	**282.6**	GW	1/36
110 SS	50x150	110	14	48	**283.6**	Self	1/36

SEALED GULLY RAISING PIECE



size(mm)	Code	Col	Bx
110	**284.6**	GW	1/36

SEALED GULLY RAISING PIECE STAINLESS STEEL COVER

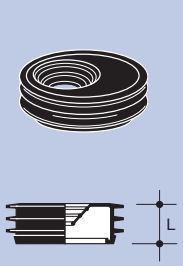


size(mm)	Code	Col	Bx
110	**285.6**	Self	1/36

G - *Grey* B - *Black* W - *White* R - *Rustic Brown* T - *Terracotta*

Terrain Waste Systems

ADAPTOR TO UNDERGROUND DRAIN PIPE



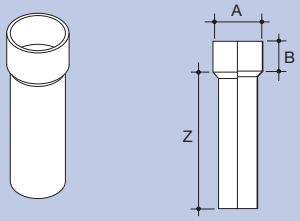
Push-fit connection into pipes with nominal 100mm bore. External use only.

size(mm)	A	L	Code	Col	Pk/bx
32/40/50	8	40	**4DW200**	B	5/60

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

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

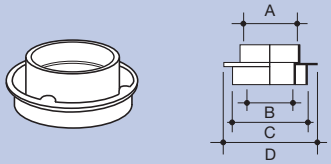
ADAPTOR TO METAL PIPE



Supplied with seal ring.

size(mm)	A	B	Z	Code	Col	Pk/bx
50	70	42	358	**226.2**	G	5/55

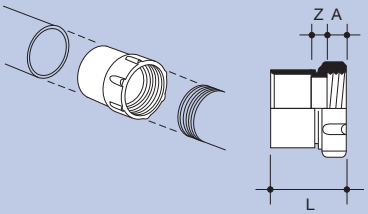
CAULKING BUSH



For connecting MuPVC waste pipe to 50mm socket of other material. Solvent-weld to pipe.

size(mm)	A	B	C	D	Code	Col	Pk/bx
32/40/50	43	36	56	70	**232**	G	10/350

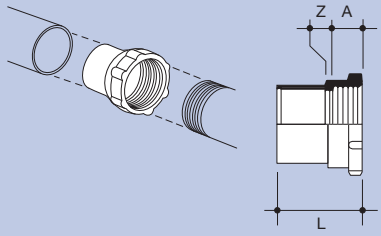
REVERSE NUT ADAPTOR



For solvent-weld connection of MuPVC waste pipe (or waste fitting) to BSP male threaded fitting or pipe.

size(mm)	A	L	Z	Code	Col	Pk/bx
32/32	15	50	11	**218.125**	W	10/300
40/40	15	53	11	**218.15**	W	10/250

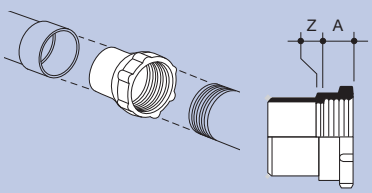
200 WASTE TO MALE IRON



For solvent-weld connection of MuPVC waste pipe or fitting to BSP threaded male pipe or fitting.

Socket and threaded socket.

size(mm)	A	L	Z	Code	Col	Pk/bx
32/32	23	51	3	**212.125**	G	10/270
40/40	23	54	3	**212.15**	G	10/220
50/50	23	57	3	**212.2**	G	5/140

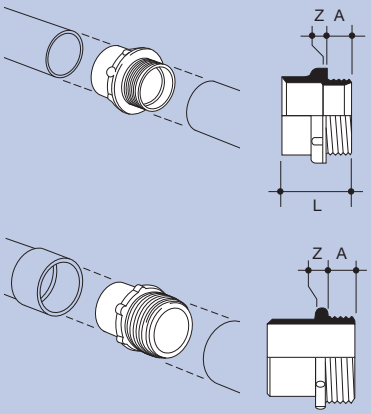


Spigot and threaded socket.

size(mm)	A	Z	Code	Col	Pk/bx
32/32	23	3	**216.125**	G	5/400
40/40	23	3	**216.15**	G	5/320
50/50	23	3	**216.2**	G	5/200

Terrain Waste Systems

200 WASTE TO FEMALE IRON



For solvent-weld connection of MuPVC waste pipe or fitting to BSP threaded female pipe or fitting.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

Socket and threaded socket.

size(mm)	A	L	Z	Code	Col	Pk/bx
32/32	19	48	3	**213.125**	G	10/320
40/40	19	51	3	**213.15**	GW	10/240
50/50	19	54	3	**213.2**	GW	5/140

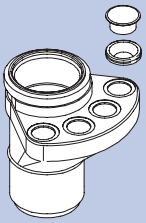
Spigot and threaded socket.

size(mm)	A	Z	Code	Col	Pk/bx
32/32	19	6	**217.125**	G	5/300
40/40	19	6	**217.15**	G	5/240
50/50	19	6	**217.2**	GW	5/160

Innovative Products

Universal Soil Manifold

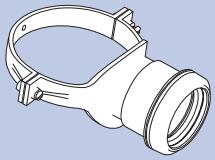
- Assembled using mirror welding technology – providing a consistent, stronger and more durable weld
- The most compact four entry manifold available
- Terrain branded waste plugs, easily removable for installation flexibility
- **Now available with solvent weld inlets**
- See pages 10 and 18 for further details



119P.4.15

New Strap-on Boss

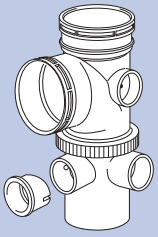
- Detachable rear strap provides back to back connection of common or different diameters
- 32mm, 40mm and 50mm boss diameters
- Same diameter of stack opening for all boss sizes
- Increased contact area for greater installation security
- See page 17 for further details



112P.4.2

Single Equal Branch – Variable Boss

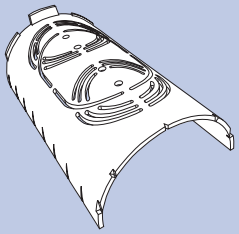
- Unrivalled installation flexibility – branch and boss pipe incorporated in a single adjustable fitting
- Direct pipe connection (x2) for 50mm waste runs – no additional fitting required
- Joint design assures vertical alignment during installation and operation
- Anti-tamper proof joint means that major product parts can no longer be separated
- See page 4 for further details



104.412.92

New Pipe Marking Template

- Marking template for access doors and associated Terrain waste bosses
- With the aid of a spirit level it is a tool for measuring gradients of fall between 0.5, 1.0 and 2.5 degrees
- Can be used to mark angles of rotation 0, 15, 45, 90, 135 and 165 degrees
- Made from polypropylene, the template is tough, durable and will not be affected by solvent cement
- See page 31 for further details

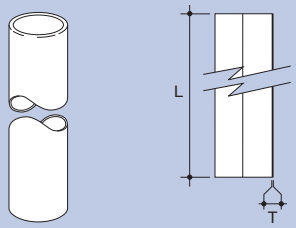


9105.500

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Waste Systems

WASTE PIPE

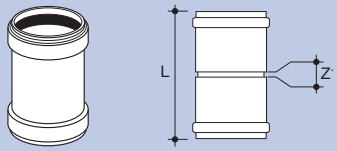


Plain-ended.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

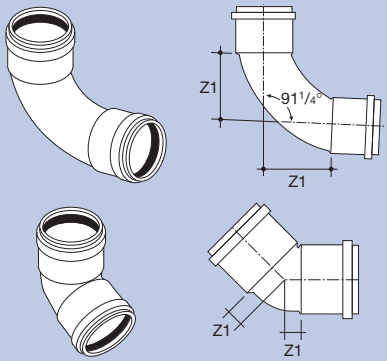
size(mm)	L	T (min)	Code	Col	Pk/bx
32	3m	1.8	**300.125.30**	GBW	10
40	3m	1.9	**300.15.30**	GBW	10
50	3m	2	**300.2.30**	G	10

STRAIGHT COUPLER DOUBLE SOCKET



size(mm)	L	Z1	Code	Col	Pk/bx
32	80	2	**310.125**	GBW	10/350
40	80	2	**310.15**	GBW	10/300
50	70	2	**310.2**	G	10/200

SWEPT BEND DOUBLE SOCKET



91¼° and 135° as standard.

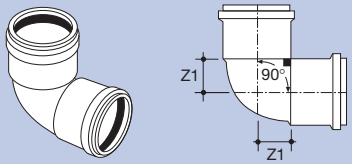
For 91¼° swept bend

size(mm)	angle°	Z1	Code	Col	Pk/bx
32	91¼	55	**301.125.91**	GBW	10/240
40	91¼	55	**301.15.91**	GBW	10/200
50	91¼	65	**301.2.91**	G	10/90

For 135° swept bend

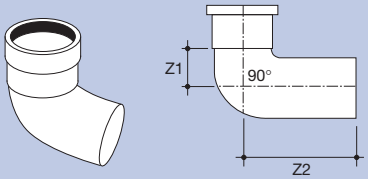
size(mm)	angle°	Z1	Code	Col	Pk/bx
32	135	10	**301.125.135**	GBW	10/300
40	135	11	**301.15.135**	GBW	10/280
50	135	14	**301.2.135**	G	10/100

KNUCKLE BEND 90° DOUBLE SOCKET



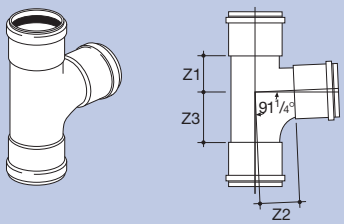
size(mm)	angle°	Z1	Code	Col	Pk/bx
32	90	20	**302.125.90**	GBW	10/160
40	90	23	**302.15.90**	GBW	10/220
50	90	28	**302.2.90**	G	10/100

SWIVEL ELBOW BEND 90° SINGLE SOCKET/SPIGOT



size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
32	90	30	60	**307.125.90**	GW	10/170
40	90	25	60	**307.15.90**	GW	10/110

SWEPT TEE 91¼°



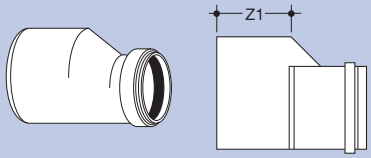
size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
32	91¼	25	30	35	**304.125.91**	GBW	10/160
40	91¼	30	33	40	**304.15.91**	GBW	10/120
50	91¼	35	40	46	**304.2.91**	G	10/70

*£ per metre is for estimating purposes only.

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Waste Systems

SOCKET REDUCER

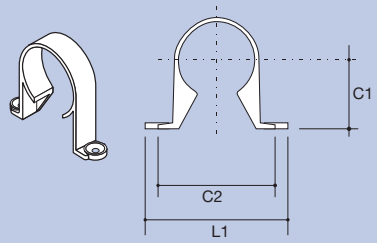


To reduce waste socket to accept smaller diameter waste pipe.

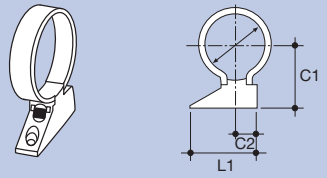
COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	Z1	Code	Col	Pk/bx
40/32	35	**323.15.125**	**GBW**	10/400
50/32	35	**323.2.125**	**G**	10/180
50/40	35	**323.2.15**	**G**	10/150

PIPE AND FITTING CLIP

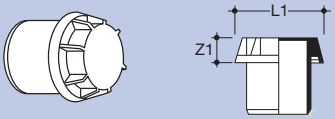


size(mm)	L1	C1	C2	Code	Col	Pk/bx
32	70	34	54	**340.125**	**GBW**	20/800
40	77	37	61	**340.15**	**GBW**	20/800



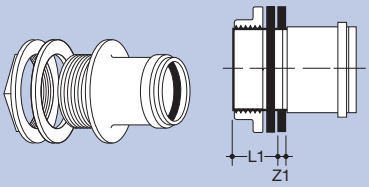
size(mm)	L1	C1	C2	Code	Col	Pk/bx
50	60	51	22	**343.2**	**G**	10/600

ACCESS PLUG



size(mm)	L1	Z1	Code	Col	Pk/bx
32	55	17	**337.125**	**GBW**	10/500
40	49	17	**337.15**	**GBW**	10/500
50	59	10	**337.2**	**G**	10/200

TANK CONNECTOR



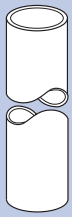
For connecting push-fit polypropylene pipe to water tank. Supplied with 2 sealing washers.

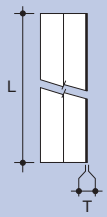
size(mm)	L1	Z1	Code	Col	Pk/bx
32	24	7	**311.125**	**GW**	10/300
40	24	7	**311.15**	**GW**	10/300
50	25	7	**311.2**	**G**	10/200

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Overflow

OVERFLOW PIPE



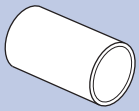


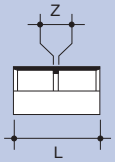
Plain-ended.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	L	T (min)		Code	Col	Pk/bx
19	4m	1.1	£1.44	**500.75.40**	W	20

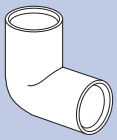
STRAIGHT COUPLER DOUBLE SOCKET

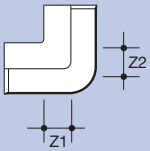




size(mm)	L	Z	Code	Col	Pk/bx
19	40	2	**510.75**	W	50/1000

BEND DOUBLE SOCKET

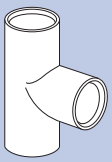


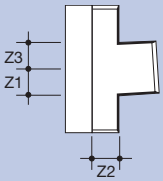


91¼° and 135° as standard.

size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
19	91¼	12	12	**501.75.91**	W	50/750
19	135	6	6	**501.75.135**	W	50/1100

BRANCH

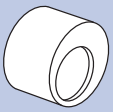


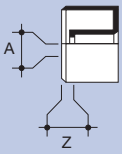


91¼° as standard.

size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
19	91¼	13	13	13	**504.75.91**	W	10/500

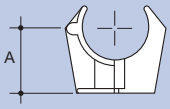
SOCKET REDUCER





size(mm)	A centre	Z	Code	Col	Pk/bx
19/32	5	5	**524.75**	W	10/1000

PIPE FIXING CLIP (PLASTIC)



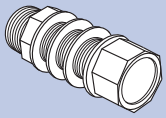
size(mm)	A	Code	Col	Pk/bx
19	20	**540.75**	W	50/2500

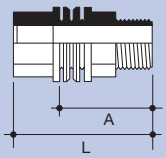
*£ per metre is for estimating purposes only.

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Overflow

STRAIGHT TANK CONNECTOR



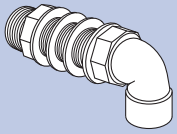


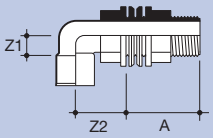
To connect cistern/tank to overflow pipe.

size(mm)	A	L	Code	Col	Pk/bx
19	48	69	**511.75**	W	10/250

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

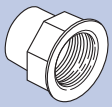
BENT TANK CONNECTOR 90°

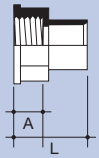




size(mm)	angle°	A	Z1	Z2	Code	Col	Pk/bx
19	90	48	13	32	**502.75.90**	W	10/200

BSP ADAPTOR SOLVENT-WELD SOCKET AND 3/4" BSP SOCKET

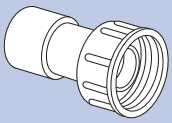


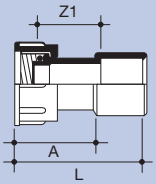


To connect PVC-u overflow pipe to threaded components. Solvent-weld socket to receive overflow pipe. Threaded socket to receive 3/4" BSP male threaded pipe end.

size(mm)	A	L	Code	Col	Pk/bx
19	14	39	**512.75**	W	10/750

REVERSE NUT CONNECTOR

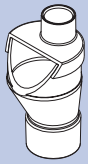


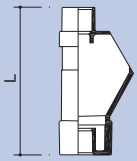


To connect PVC-u overflow pipe to threaded components. Threaded loose nut to receive 3/4" BSP male threaded pipe end.

size(mm)	A	L	Z1	Code	Col	Pk/bx
19	35	54	25	**519.75**	W	20/300

TUNDISH





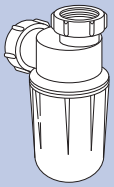
size(mm)	L	Code	Col	Pk/bx
19	117	**590.75**	W	5/100

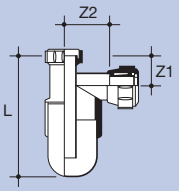
G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Terrain Traps

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

BOTTLE 'P' TRAP

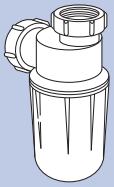


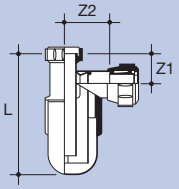


75mm water seal.

size(mm)	L	Z1	Z2	Code	Col	Pk/bx
32	166	47	62	**611.125**	W	5/60
40	170	50	59	**611.15**	W	5/60

BOTTLE 'P' TRAP SELF RE-SEALING

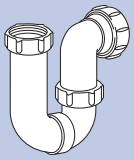


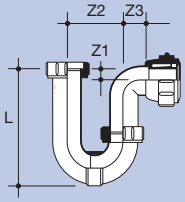


Supplied with insert to create an air by-pass to protect water seal.
75mm water seal.

size(mm)	L	Z1	Z2	Code	Col	Pk/bx
32	166	47	62	**615.125**	W	5/60
40	170	50	59	**615.15**	W	5/50

TUBULAR 'P' TRAP

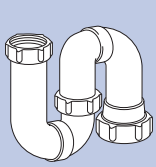


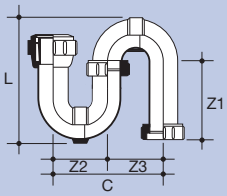


Mid-point release nut to allow adjustment.
75mm water seal.

size(mm)	L	Z1	Z2	Z3	Code	Col	Pk/bx
32	136	11	66	29	**631.125**	W	5/80
40	148	11	72	31	**631.15**	W	5/65

TUBULAR 'S' TRAP

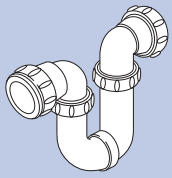


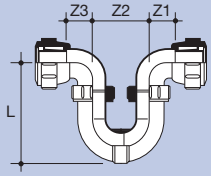


Mid-point release nut to allow adjustment.
75mm water seal.

size(mm)	C (max)	C (min)	L	Z1	Z2	Z3	Code	Col	Pk/bx
32	132	48	136	95	66	66	**632.125**	W	5/60
40	144	55	148	107	72	72	**632.15**	**W**	5/50

TUBULAR RUNNING 'P' TRAP

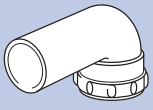


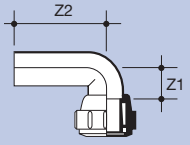


Universal compression inlet and outlet to suit copper and plastic pipes.
75mm water seal.

size(mm)	L	Z1	Z2	Z3	Code	Col	Pk/bx
32	135	28	66	28	**645.125**	W	5/60
40	145	31	72	31	**645.15**	W	5/45

SPIGOT/SOCKET BEND

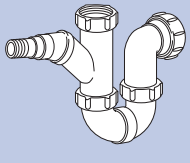


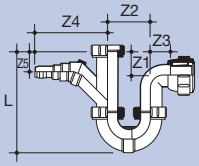


To convert tubular or bottle 'P' traps to 'S' traps.

size(mm)	Z1	Z2	Code	Col	Pk/bx
32	27	61	**607.125.90**	**W**	5/135
40	31	65	**607.15.90**	**W**	5/110

WASHING MACHINE TRAP



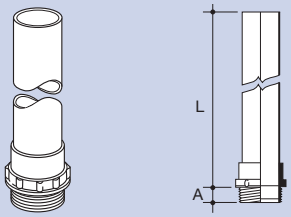


Ramped entry for washing machine connection to prevent splash back through waste outlet. Multi-joint connection for washing machine e.g. plain hose or reverse nut thread for 19mm and 25mm connection.

size(mm)	L	Z1	Z2	Z3	Z4	Z5	Code	Col	Pk/bx
40	177	37	72	31	132	28	**633.15**	W	5/40

Terrain Traps

WASHING MACHINE STANDPIPE

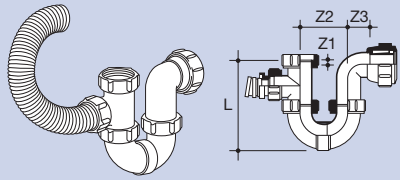


To accept flexible waste pipes from domestic washing machines and dishwashers. Providing necessary air break to prevent continuous syphoning.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	A	L	BSP thread	Code	Col	Pk/bx
40	19	501	40	**9250**	W	5/75

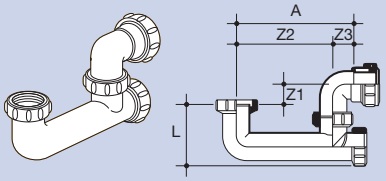
TUBULAR 'P' BATH TRAPS



Supplied with flexible overflow hose.
75mm water seal.
Install with 690, 691, 692 or 693 overflow outlets.

size(mm)	L	Z1	Z2	Z3	Code	Col	Pk/bx
40	143	2	72	31	**651.15**	W	5/30

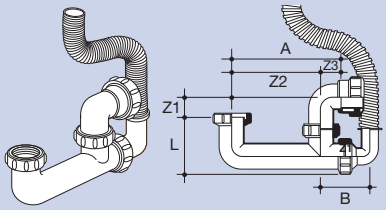
TUBULAR LOWLINE 'P' BATH TRAPS



Supplied with blanking plug-cleaning eye.
50mm water seal.

size(mm)	A	L	Z1	Z2	Z3	Code	Col	Pk/bx
40	172	93	32	141	31	**657.15**	W	5/50

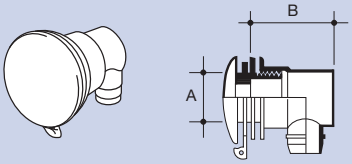
TUBULAR LOWLINE 'P' BATH TRAP WITH OVERFLOW



50mm water seal.
Install with 690 or 691 overflow outlets.

size(mm)	A	B	L	Z1	Z2	Z3	Code	Col	Pk/bx
40	172	77	93	32	141	31	**659.15**	W	5/25

BATH OVERFLOW OUTLET



Spigot outlet accepts flexible overflow tube.
Supplied with plug and chain.

Plastic

A	B	Code	Col	Pk/bx
42	57	**690.075**	W	5/100

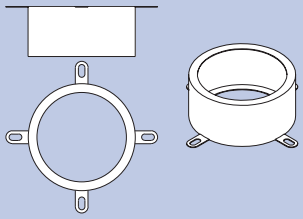
Chrome-plated

A	B	Code	Col	Pk/bx
42	57	**691.075**	W*	5/100

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Accessories/Ancillaries

INTUMESCENT PIPE COLLAR



An intumescent sleeve is designed to prevent the spread of fire and smoke where PVC-u pipes penetrate a fire rated compartment wall or floor.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

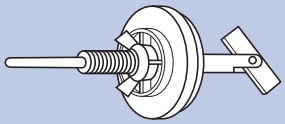
size(mm)	weight(g)	fire rating	Code	Col	Pk/bx
50	472	2 hrs	**1725.2**	S/Steel	5/50
82	778	2 hrs	**1725.3**	**S/Steel**	5/50
110	1016	2 hrs	**1725.4**	S/Steel	5/25
160	2534	2 hrs	**1725.6**	**S/Steel**	5/10

FIXING BOLTS

Heavy duty expanding fixing bolts – pack of 4.

Code	Col	Bx
1726		1/100

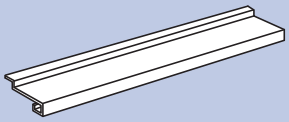
TOGGLE BOLT



To clamp 112 and 115 Boss Connectors while solvent-welding.

Code	Col	Pk/bx
9115	**Self**	1/50

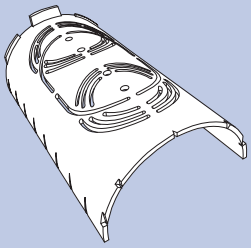
PACKING PIECE



For use with 140 and 142 Pipe Brackets and 191 Intermediate Support Brackets.

size(mm)	Code	Col	Pk/bx
82	**9104.3**	**G**	1
110	**9104.4**	**GB**	10/200
160	**9104.6**	**G**	1/100

PIPE MARKING TEMPLATE



Marking guide for Terrain Soil Systems, access and boss connection

size(mm)	Code	Col	Pk/bx
110	**9105.500**	**Blue**	1/–

Accessories/Ancillaries

WC PAN SEAL (SOIL)

Material: EPDM
Replacement seal for pan outlet diameter 95¼–121mm.

COLOUR CODES IN **BOLD** AVAILABLE AS SINGLE ITEMS

size(mm)	Code	Col	Pk/bx
110	**9124**	B	1/100

SPARE SEAL RINGS (SOIL)

Material: EPDM
Suitable for:
– soil system expansion sockets and soil pipe
– use with **126 Adaptors to Cast Iron**
– soil fittings ***(as listed)***.

size(mm)	For fittings	Code	Col	Pk/bx
110	**Push Fit Soil (P) range**	**9116.4**	B	1
160	**Push Fit Soil (P) range**	**9116.6**	B	1
82	**109/111/111.S/126/132**	**9120**	B	1
110	**103/105/109/111/111.S/126/132/137**	**9119.B**	B	1

Material: EPDM
Allows soil fittings to accept metric copper pipe to BS 2871.

size(mm)	Code	Col	Pk/bx
110	**9149**	Red	1

SPARE SEAL RING (WASTE)

Suitable for:
– 200 Waste System Fittings to accept pipe manufactured to BS 5255 and BS 5254.
Acceptable for:
– copper pipe to BS 659 and BS 2781.

size(mm)	Code	Col	Pk/bx
32	**9132.125**	B	1
40	**9132.15**	B	1
50	**9132.2**	B	1

SEALING INSERT (SPARE)

Material: EPDM.

size(mm)	Code	Col	Pk/bx
40	**9113**	B	1

MANIFOLD PLUG (SPARE)

Material: Polypropylene.

size(mm)	Code	Col	Pk/bx
40	**9114**	G	1

CLEANING FLUID

Material: Acetone.
For cleaning PVC-u pipe and fittings before applying Liquid Weld.
Screw top cans.

size(ml)	Code	Col	Pk/bx
125	**9101.125**		12/24
250	**9101.250**		12/24

LUBRICANT

Material: Silicone grease Soluble lubricant.
For lubricating seal rings on expansion fittings.

size(ml)		Code	Col	Pk/bx
50	Tube (silicone)	**9136.50**		10/150
250	Tub (silicone)	**9136.250**		10/40
500	Tub (soluble)	**9136.500**		10/20

LIQUID WELD

For solvent jointing of PVC-u pipes and fittings cap incorporates integral brush.

size(ml)	Code	Col	Pk/bx
125	**9100.125**		12/24
250	**9100.250**		12/24
500	**9100.500**		12

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Design Considerations

Building Regulations Requirements

All sanitary pipework and drainage installations must satisfy the relevant requirements of Part H1 of the approved documents to the England, Wales and Northern Ireland Building Regulations 1990 and the Building Standards (Scotland) amendment regulations 1982.

Installations in accordance with BS EN 12056:2
Code of practice for sanitary pipework will also meet Building Regulations requirements.

Ventilation

The discharge stack must be ventilated in order to prevent pressure building up within the system and drawing the water seals in the traps.

Separate ventilation of branch pipes is required only if the length and slope of the branch exceeds the following dimensions:

Maximum length:
(32mm) 1.7 metres
(40mm) 3 metres
(50mm) 4 metres
Slope: 18-90mm per metre

In such cases, the branch pipe should be ventilated by a branch ventilating pipe or an anti-syphon trap should be fitted.

The Automatic Air Admittance Valve reduces the number of stack ventilating pipes required to penetrate the roof in multi-installations, without affecting performance of the drainage system.

Thermal expansion

Within a solvent-weld system it is important to make adequate allowance for thermal movement. This is most easily achieved by fitting an expansion ring seal joint between two fixed solvent-weld joints.

The expansion gap should be created by pushing the spigot fully into the ring seal socket, and marking the position at the socket face. Then withdraw the spigot by 10mm.

Check subsequently to ensure that the expansion gap is not lost during further installation work.

Branch connections

The distance between the centreline of the lowest branch connection to the discharge stack and the invert of the bend at the foot of the stack should be in accordance with the following:

≤ 3 storeys	450mm min.
≤ 5 storeys	750mm min.
5 storeys +	Ground floor connections should discharge direct to drain or into their own stack
20 storeys +	Ground and first floor connections should discharge into their own stack

A branch pipe should not discharge into a stack in a way which could cause crossflow into any other branch pipe.

Working temperatures

Terrain Soil and Waste systems may be used to convey liquids with a maximum temperature of 76°C when subjected to continuous flow. Intermittent discharges of up to 100°C may occur provided they are of less than 2 minutes duration.

Chemical discharges

Terrain Soil and Waste systems are generally resistant to most commonly used acids and those that may be discharged to the public sewer system. The rubber seals, however, are less resistant and it is advised that before any chemicals are conveyed through the systems, checks are made to establish their effects on the product. Refer to BS CP 312 Part 1 Code of Practice for Plastic Pipework for further information.

Access

Sufficient and suitable access must be provided to enable all pipework to be tested and maintained effectively. Access covers, plugs or caps should be installed in positions to facilitate use of testing equipment and removal of blockages.

Fire Spread

In large commercial or housing developments, compartmentation may be required by the Building Regulations 1991 (Part B 3(2) Schedule 1). In such cases, any penetrations by sanitary pipework must be suitably fire stopped.

Suitable measures include the containment of pipes from floor to ceiling in a fire resistant enclosure (with appropriate fire rating).

In addition, the Terrain Firebrake Intumescent Sleeve has been designed to meet the highest fire stopping requirements.

Pipe support

Pipes must be adequately supported when installed vertically or horizontally (to falls).

Fabrication Service

Fabricated specials

Our Fabrication Service is able to help you by producing Specials to overcome those tricky problems that arise in the design process and on site.

Our experienced fabricators are able to satisfy the requirements of any project.

Standard specials

- These are produced by making slight modifications to existing Terrain products to suit frequently occurring design problems e.g. special gutter angles for bay windows, conservatories etc.
- These products tend to be required regularly, but in small quantities.
- Delivery lead time is usually the same as for standard catalogue items.
- Standard Specials have an F prefix added to the standard number and can be found in our price list.

Multi entry branch designed to suit customer's unique requirements.

Gutter offset unit bespoke to fit individual building dimensions.

Custom specials

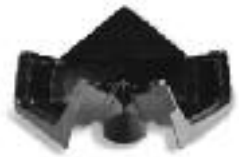
- These are designed and fabricated specifically to meet the unique design requirements created by special architectural features. They can be made not only on a one-off or small batch basis, but also in their hundreds, subject to the demands of your particular project.
- They can be produced to your precise specification in virtually any size or shape.
- Custom Specials provide solutions to otherwise unsolvable design problems.
- Delivery time depends upon the complexity of the design and number required.
- Examples of situations in which Custom Specials have provided solutions include a PVC drain outlet filter designed to catch tiny pieces of gold fillings positioned beneath the operating area in a dental surgery; and specially designed silt traps to deal with drainage needs at football grounds.

Pre-fabricated stacks

With increased labour shortages, the more aspects of the construction process that can be dealt with in the factory rather than on-site, the greater the benefits for everyone.

Solving problems at the design and manufacturing stage ensures 'right first time' quality, increased predictability of construction time and cost, and improvements to both site productivity and health and safety.

Prefab Stacks consist of soil and waste pipes and fittings pre-assembled at the factory to pre-determined lengths to provide a modular soil and vent stack.



Raked angle gutter outlet with built-in overshoot guard.

Double branches can be made to any size and angle.

These offer a number of benefits:

- Time and labour costs on site are reduced by mini-mising the joints to be made.
- Highly efficient for commercial, leisure and housing projects where identical plumbing arrangements are repeated a number of times.
- Can be quickly installed, reducing the need to re-locate residents, making them ideal for refurbishment work.

Taking a typical house as an example, stacks are pre-welded and supplied in four sections:

- Drain socket to kitchen connection.
- Intermediate section including bathroom connection.
- Top section through roof.
- Connection to W.C.

They are available in four colours: grey, white, black and rustic brown. Delivery time is dependent on quantities required.

You provide us with architect drawings and, ideally the sanitaryware schedule, and we do the rest.

Fabrication Service

TERRAIN FABRICATION SERVICE

Specialists in fabrication

The Terrain Fabrication team works closely with our Technical Services Department, employing the latest design and manufacturing technologies.

Together, they produce high quality Pre-fabricated Stacks and Specials, either by making modifications to existing products from the Terrain range, or by conceiving components from scratch to deal with particularly awkward problems.

Where fittings are designed specially, CAD technology is used to provide accurate drawings, along with indications of all relevant dimensions.

Our fabrication team provides services in two key areas.

Specials

There are occasions on which even the most comprehensive standard product system won't meet up to the demands of a particularly complex design or installation.

And at times like this, the Terrain Fabrication Service is uniquely placed to help you.

Pre-fabrication

Shortage of skilled labour is just one reason for the growth of pre-fabrication within construction. Moving significant elements of the process from site to factory provides improvements in quality, cost and time predictability, productivity and safety.

With unrivalled expertise in PVC and HDPE fabrication systems, our Fabrication Service has been helping specifiers and contractors overcome problems, both at the design stage and on site, for over 30 years.

Three easy steps for our Special Fabrication Service

It couldn't be simpler to order Specials or have a Pre-fabricated Stack manufactured for you.

1. Send a dimensioned sketch and specification by email, fax or post to our Technical Services Department.

2. We will then advise you on design possibilities and send you back CAD diagrams, if necessary, complete with a part number and price for your approval.

   If the special is being incorporated into the design stage of a drainage layout, be sure to include the unique part number with any plans to be passed to the contractor.

3. You place the order through your local merchant, stating the unique product number and price.

Whether at the design stage or on site, should you come up against a problem related to plumbing and drainage, look no further than the Terrain Special Fabrication Service.

Design Data

Table A: Discharge units (DU) Values

Appliance	System III DU l/s
Wash basin, bidet	0.3
Shower without plug	0.4
Shower with plug	1.3
Single urinal with cistern	0.4
Urinal with flushing valve	–
Slab urinal	0.2*
Bath	1.3
Kitchen sink	1.3
Dishwasher (household)	0.2
Washing machine up to 6 kg	0.6
Washing machine up to 12 kg	1.2
WC with 4.0 L cistern	**
WC with 6.0 L cistern	1.2 to 1.7***
WC with 7.5 L cistern	1.4 to 1.8***
WC with 9.0 L cistern	1.6 to 2.0***
Floor gully DN 50	–
Floor gully DN 70	–
Floor gully DN 100	–

* Per person.
** Not permitted.
*** Depending upon type (valid for WC's with siphon flush cistern only).
– Not used or no data.

Example

10 storey building with

4 WC
2 WHB
2 Baths
2 Showers
2 Sinks
2 W/MC

} On each floor

4 x 1.5 = 6.0
2 x 0.3 = 0.6
2 x 1.3 = 2.6
2 x 0.4 = 0.8
2 x 1.3 = 2.6
2 x 0.6 = 1.2

13.8 x 10 = 138 DU

Domestic Building Use K = 0.5

$0.5 \sqrt{138} = 5.87$ l/s

See Table C and D for capacities of pipes.

NB Under no circumstances should pipe of a larger diameter be connected to pipe of a smaller diameter in the direction of flow.

Table B: Typical frequency factors (K)

Usage of appliances	K
Intermittent use, e.g. in dwelling, guesthouse, office	0.5
Frequent use, e.g. in hospital, school, restaurant, hotel	0.7
Congested use, e.g. in toilets and/or showers open to public	1.0
Special use, e.g. laboratory	1.2

Frequency factor (K)

Typical frequency factors associated with different usage of appliances Table B.

Calculation of flowrate
Waste water flowrate (Q_{ww})

Q_{ww} is the expected flowrate of waste water in a part or in the whole drainage system where only domestic sanitary appliances are connected to the system

$$Q_{ww} = K\sqrt{\Sigma DU}$$

where:

Q_{ww} = Waste water flowrate (l/s)
K = Frequency factor
ΣDU = Sum of discharge units.

Design Data

Table C: Stack with only Primary Vent

Stack and stack vent	System I, II, III, IV Q_{max} (L/s)	
DN	Square #entries	Swept entries
60	0.5	0.7
70	1.5	2.0
80*	2.0	2.6
90	2.7	3.5
100**	4.0	5.2
125	5.8	7.6
150	9.5	12.4
200	16.0	21.0

* Minimum size where WC's are connected in system II.
** Minimum size where WC's are connected in system I, III, IV.

Table D: Stack with Secondary Venting

Stack and stack vent	Secondary vent	System I, II, III, IV Q_{max} (L/s)	
DN	DN	Square #entries	Swept entries
60	50	0.7	0.9
70	50	2.0	2.6
80*	50	2.6	3.4
90	50	3.5	4.6
100**	50	5.6	7.3
125	70	7.6	10.0
150	80	12.4	18.3
200	100	21.0	27.3

* Minimum size where WC's are connected in system II.
** Minimum size where WC's are connected in system I, III, IV.

#Equal branch junctions that are more than 45°, or has a centre line radius less than the internal pipe diameter.

For branch pipe sizing based on System III the following sizing charts should be used.

Limitations for unventilated branch discharge pipes, system III

Appliance	Diameter DN	Min. trap seal depth mm	Max length (*L*) of pipe from trap outlet to stack m	Pipe gradient	Max. number of bends	Max. drop (*H*) m
Washbasin, bidet (30mm diameter trap)	30	75	1.7	2.2[1)]	0	0
Washbasin, bidet (30mm diameter trap)	30	75	1.1	4.4[1)]	0	0
Washbasin, bidet (30mm diameter trap)	30	75	0.7	8.7[1)]	0	0
Washbasin, bidet (30mm diameter trap)	40	75	3.0	1.8 to 4.4	2	0
Shower, bath	40	50	No Limit[2)]	1.8 to 9.0	No Limit	1.5
Bowl urinal	40	75	3.0[3)]	1.8 to 9.0	No Limit[4)]	1.5
Trough urinal	50	75	3.0[3)]	1.8 to 9.0	No Limit[4)]	1.5
Slab urinal[3)]	60	50	3.0[3)]	1.8 to 9.0	No Limit[4)]	1.5
Kitchen sink (40mm diameter trap)	40	75	No Limit[2)]	1.8 to 9.0	No Limit	1.5
Household dishwasher or washing machine	40	75	3.0	1.8 to 4.4	No Limit	1.5
WC with outlet up to 80mm[6)]	75	50	No Limit	1.8 Min.	No Limit[4)]	1.5
WC with outlet greater than 80mm[6)]	100	50	No Limit	1.8 Min.	No Limit[4)]	1.5
Food waste disposal[7)]	40 Min.	75[8)]	3.0[3)]	13.5 Min.	No Limit[4)]	1.5
Sanitary towel disposal unit	40 Min.	75[8)]	3.0[3)]	5.4 Min.	No Limit[4)]	1.5
Floor drain	50	50	No Limit[3)]	1.8 Min.	No Limit	1.5
Floor drain	70	50	No Limit[3)]	1.8 Min.	No Limit	1.5
Floor drain	100	50	No Limit[3)]	1.8 Min.	No Limit	1.5
4 basins	50	75	4.0	1.8 to 4.4	0	0
Bowl urinals[3)]	50	75	No Limit[3)]	1.8 to 1.9	No Limit[4)]	1.5
Maximum of 8 WC's[6)]	100	50	15.0	0.9 to 9.0	2	1.5
Up to 5 spray tap basins[9)]	30 Max.	50	4.5[3)]	1.8 to 4.4	No Limit[4)]	0

1) Steeper gradient permitted if pipe is less than maximum permitted length.
2) If length is greater than 3m noisy discharge may result with an increased risk of blockage.
3) Should be as short as possible to limit problems with deposition.
4) Sharp throated bends should be avoided.
5) For slab urinal for up to 7 persons. Longer slabs to have more than one outlet.
6) Swept-entry branches serving WC's.
7) Includes small potato-peeling machines.
8) Tubular not bottle or resealing traps.
9) Spray tap basins shall have flush-grated wastes without plugs.

Ventilated discharge branches

Sizes and limitations upon the use of ventilated discharge branches are given in the tables above. Limitations given in the second table are simplifications, for further information see national and local regulations and practice.

Limitations for ventilated branch discharge pipes, system III

Appliance	Diameter DN	Min. trap seal depth mm	Max length (*L*) of pipe from trap outlet to stack m	Pipe gradient	Max. number of bends	Max. drop (*H*) m
Washbasin, bidet (30mm diameter trap)	30	75	3.0	1.8 Min.	2	3.0
Washbasin, bidet (30mm diameter trap)	40	75	3.0	1.8 Min.	No Limit	3.0
Shower, bath	40	50	No Limit[2)]	1.8 Min.	No Limit	No Limit
Bowl urinal	40	75	3.0[3)]	1.8 Min.	No Limit[4)]	3.0
Trough urinal	50	75	3.0[3)]	1.8 Min.	No Limit[4)]	3.0
Slab urinal[3)]	60	50	3.0[3)]	1.8 Min.	No Limit[4)]	3.0
Kitchen sink (40mm diameter trap)	40	75	No Limit[2)]	1.8 Min.	No Limit	No Limit
Household dishwasher or washing machine	40	75	No Limit[3)]	1.8 Min.	No Limit	No Limit
WC with outlet up to 80mm[6) & 14)]	75	50	No Limit	1.8 Min.	No Limit[4)]	1.5
WC with outlet greater than 80mm[6) & 14)]	100	50	No Limit	1.8 Min.	No Limit[4)]	1.5
Food waste disposal[7)]	40 Min.	75[8)]	3.0[3)]	13.5 Min.	No Limit[4)]	3.0
Sanitary towel disposal unit	40 Min.	75[8)]	3.0[3)]	5.4 Min.	No Limit[4)]	3.0
Bath drain, Floor drain	50	50	No Limit[3)]	1.8 Min.	No Limit	No Limit
Floor drain	70	50	No Limit[3)]	1.8 Min.	No Limit	No Limit
Floor drain	100	50	No Limit[3)]	1.8 Min.	No Limit	No Limit
5 basins[9)]	50	75	7.0	1.8 to 4.4	2)	0
10 basins[9) & 10)]	50	75	10.0	1.8 to 4.4	No Limit	0
Bowl urinals[9) & 11)]	50	70	No Limit[3)]	1.8 Min.	No Limit[4)]	No Limit
More than 8 WC's[6)]	100	50	No Limit	0.9 Min.	No Limit	No Limit
Up to 5 spray tap basins[12)]	30 Max.	50	No Limit[3)]	1.8 to 4.4	No Limit[4)]	0

1) For maximum distances from trap to vent (see Figure 8 of BS EN 1205-2:2000).
2) If length is greater than 3m noisy discharge may result with an increased risk of blockage.
3) Should be as short as possible to limit problems with deposition.
4) Sharp throated bends should be avoided.
5) For slab urinal for up to 7 persons. Longer slabs to have more than one outlet.
6) Swept-entry branches serving WC's.
7) Includes small potato-peeling machines.
8) Tubular not bottle or resealing traps.
9) See Figure 9 of BS EN 12056-2:2000).
10) Every basin shall be individually ventilated.
11) Any number.
12) Spray tap basins shall have flush-grated wastes without plugs.
13) The size of ventilating pipes to branches from appliances can be DN 25 but, if they are longer than 15m or contain more than five bends, a DN 30 pipe shall be used.
14) If the connection of the ventilating pipe is liable to blockage due to repeated splashing or submergence, it should be DN 50, up to 50mm above the spill-over of the appliance.

Socket Dimensions

100 SOIL SYSTEM – PVC-u (SOLVENT-WELDED)

82, 110 and 160mm pipe and fittings (Fig. 1)

A	B	C	T1 (min)	T2 (min)
82	95	51	3.2	3.2
110	122	51	3.2	3.2
160	175	76	3.3	3.5

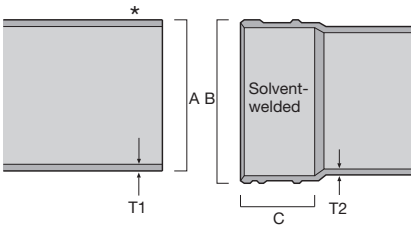


Fig. 1

100P SOIL SYSTEM – PVC-u (PUSH-FIT)

82, 110 and 160mm pipe and fittings (Fig. 2)

A(Fig. 2)	D	E	T2
82	100	50	3.2
110	132	58	3.4
160	189	70	4.1

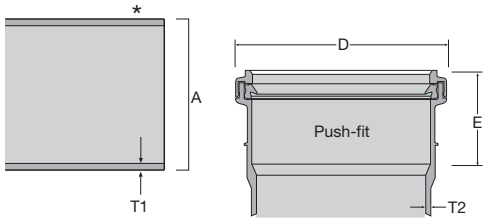


Fig. 2

200 WASTE SYSTEM – MuPVC (SOLVENT-WELDED)

32, 40 and 50mm pipe and fittings (Fig. 3)

Nom.	A	B	C	D	E	T1 (min)	T2 (min)
32mm	36	42	24	53	44	1.8	1.8
40mm	43	49	27	60	44	1.9	1.9
50mm	56	62	30	75	44	2.0	2.0

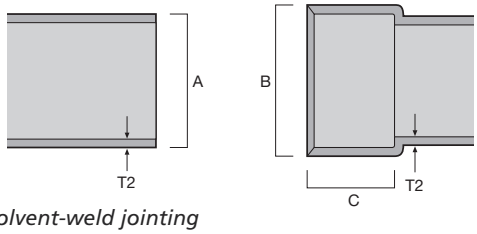


Fig. 3 Solvent-weld jointing

300 WASTE SYSTEM – POLYPROPYLENE (PUSH-FIT)

32, 40 and 50mm pipe and fittings (Fig. 4)

Nom.	A	D	E	T2	T1
32mm	35	41	20	1.8	
40mm	41	47	23	1.9	
50mm	54	61	29	2.0	

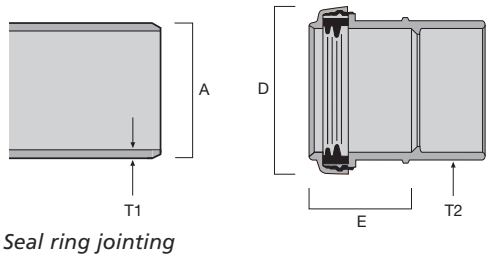


Fig. 4 Seal ring jointing

500 OVERFLOW SYSTEM

For cold, non-pressure water. Sockets are for solvent-weld jointing

19mm pipe and fittings (Fig. 5)

A	B	T1 (min)	T2 (min)
21	19	1.1	2.0

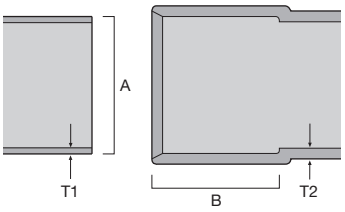


Fig. 5

600 TRAPS SYSTEM

32, 40 and 50mm sockets (Fig. 6)

size	A	B (min)
32mm	55	42
40mm	65	49

Tubular 'S' traps limits (Fig. 7)
C maximum C minimum (trap folded)

Part no.	C (max)	C (min)
632.125	136	50
632.15	150	60

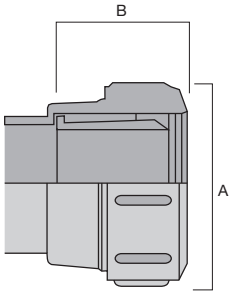


Fig. 6

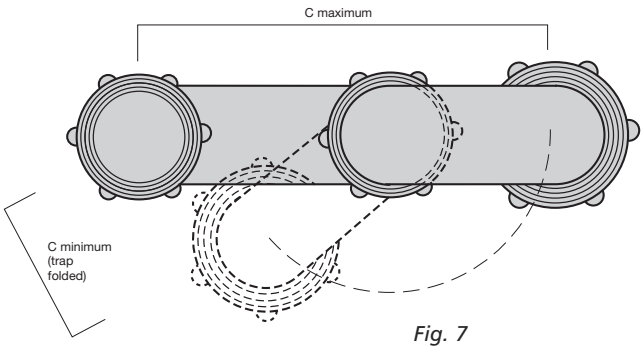


Fig. 7

All dimensions in mm unless otherwise stated.

Numerical Index

100-Solvent

100P-PushFit

Numerical Index

Numerical Index

G - *Grey* B - *Black* W - *White* R - *Rustic Brown*

Numerical Index

Code	Colour	Page
Accessories		
1725.2	S/Steel	31
1725.3	S/Steel	31
1725.4	S/Steel	31
1725.6	S/Steel	31
1726	–	31
9100.125		32
9100.250		32
9100.500		32
9101.125		32
9101.250		32
9104.3	G	31
9104.4	GB	31
9104.6	G	31
9105.500	Blue	31
9113	B	32
9114	G	32
9115	Self	31
9116.4	B	32
9116.6	B	32
9119.B	B	32
9120	B	32
9124	B	32
9132.125	B	32
9132.15	B	32
9132.2	B	32
9136.50		32
9136.250		32
9136.500		32
9149	Red	32

Note: Products marked with * are part of the Terrain Underground range and a different discount structure therefore applies.

Materials

100 and 100P Terrain Soil System
PVC-u

200 Terrain Waste System
MuPVC

300 Terrain Waste System
Polypropylene

500 Terrain Overflow System
PVC-u

600 Terrain Traps
Polypropylene

Quality assurance

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

Certifications

The Terrain Automatic Air Admittance Valve is covered by British Board of Agrément Certificate 97/3421.

Standards compliance

Terrain systems comply with the appropriate British and European Standard and, where applicable, bear the Kitemark:

BS 4514:2001. PVC-u Soil Systems, 82, 110 and 160mm soil pipes and fittings (partially replaced with BS EN 1329-1:2000)

BS 4514 is an Internal Claim only. Products migrated from BS 4514 to the new BS EN 1329 standard still comply fully to BS 4514 but can only be licensed to BS EN 1329

BS 5254:1976. Polypropylene waste systems, 32, 40 and 50mm waste pipe and fitting

BS 5255:1989. MuPVC waste systems 32, 40 and 50mm waste pipes and fittings (partially replaced with BS EN 1329-1:2000)

BS 6209. Solvent Cement: 125, 250 and 500ml tins.

Terrain systems also comply with many of the requirements of DIN and ISO.

Availability

For details of local stockists, please contact Sales Support on 01622 717811.

Further information and assistance

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

Technical services include:

- Soil and waste schematics and applicable details.
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- CAD drawings, including products and application details on disk.

  Many products are also available in CAD form for ready incorporation into design drawings (Products marked in the listings). To obtain a disk or CD Rom in the appropriate format, simply contact Technical Services.
- On site advice and problem solving.
- Prefabrication and fabrication design service.

For prompt assistance, please contact the Terrain Technical Services Department:

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