

# TERRAIN



## Terrain Rainwater Systems

### Product Guide





## Distinctive shapes. Exceptional performance.

Quality product, innovation and outstanding service – the combined promise that ensures every one of Terrain's five rainwater drainage systems will surpass your requirements, whatever the installation you're specifying.

Large or small; residential or commercial; in the public sector or as part of an industrial development, in terms of both capacity and design aesthetics the Terrain range of products is impossible to beat.

Each Terrain system comprises fully integrated gutter and downpipe assemblies as well as outlets for balconies and flat roofs, and includes all the fittings and accessories needed for easy installation.

### Features and benefits

- Captive seals in all gutter systems
- Combination clipping system for quick reliable installation
- Fixing locations positioned outside the wet areas
- Expansion markings on ALL gutter fixings
- Dry jointed spigot-socket downpipe system
- Complies to EN607/EN12200/EN1462

#### Crescent



#### True half-round profile

Ideal for houses, smaller commercial buildings and offices. Can drain roof areas up to 122m<sup>2</sup> with a single downpipe. Capacity per outlet 2.54 litres/sec.\*

#### Corniche



#### Square profile

A popular, modern system suiting domestic houses, bungalows and conservatories. Can drain roof areas up to 149m<sup>2</sup> with a single downpipe. Capacity per outlet 3.11 litres/sec.\*

#### Streamline



#### Large square profile

A high capacity system ideal for commercial properties and larger houses. Can drain roof areas up to 294m<sup>2</sup> with a single downpipe. Capacity per outlet 6.11 litres/sec.\*

#### Rapidflow



#### Deep elliptical profile

A high capacity system suiting all styles of property. Ideal for large roof areas or areas with higher than normal rainfall. Can drain roof areas up to 266m<sup>2</sup> with a single downpipe. Capacity per outlet 5.53 litres/sec.\*

#### Omega



#### Ogee profile

Ideal for the more distinctive house, also suiting bungalows and conservatories. Can drain roof areas up to 242m<sup>2</sup> with a single downpipe. Capacity per outlet 5.04 litres/sec.\*

#### Outlets




#### Roof and Balcony Outlets

Outlets available for all flat roof and balcony structures and drain vent systems (For large roof areas use Terrain Siphonics – see separate catalogue)

\*For full capacity specifications please see System Calculation on page 26–27.

## Contents

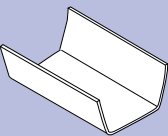
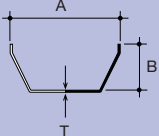

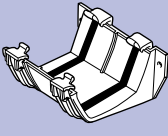
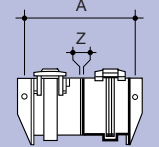

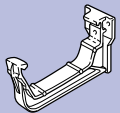
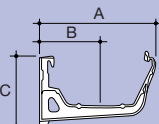

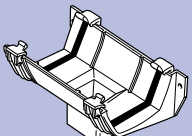
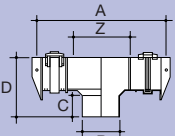

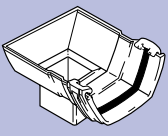
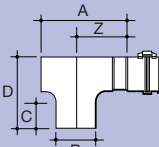

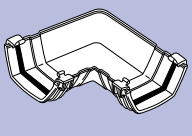
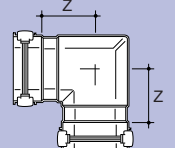

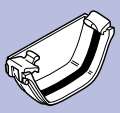
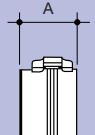

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Products marked  in the product listings are available in CAD form for ready incorporation into design drawings. If you'd like a disk or CD ROM in the appropriate format, simply contact the Technical Advisory Service.



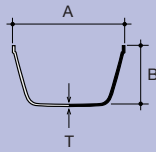
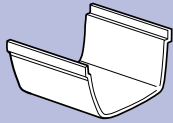
GUTTER		True half round profile for maximum capacity Standard gutter length 4m	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS			
	size(mm)	A	B	T	Code Col Pk/bx	
	110	110	55	2.2	<b>2150.4.40</b> GBWR 5/0	
JOINT BRACKET		For joining gutter lengths	Code Col Pk/bx			
	size(mm)	A	Z			
	110	117	1.5	<b>2151.4</b> GBWR 5/100		
SUPPORTING BRACKET		For supporting gutter lengths, angles and stop-end outlets	Code Col Pk/bx			
	size(mm)	A	B	C		
	110	126	66	83	<b>2152.4</b> GBWR 5/200	
RUNNING OUTLET		For connecting gutter run to downpipe	Code Col Pk/bx			
	size(mm)	A	B	C	D	Z
	110	214	68	35	117	95
STOP-END OUTLET		To cap open gutter and connect gutter run to downpipe	Code Col Pk/bx			
	size(mm)	A	B	C	D	Z
	110	145	68	35	117	84
GUTTER ANGLE		To change gutter run direction: 90°, 120° and 135° as standard	Code Col Pk/bx			
	size(mm)	angle°	Z			
	110	90	88	<b>2154.4.90</b> GBWR 5/40		
	110	120	60	<b>2154.4.120</b> B 5/60		
	110	135	54	<b>2154.4.135</b> GBW 2/64		
	110	156	96	<b>2154.4.156</b> B 5/60		
SHORT STOP-END		To cap open gutter end	Code Col Pk/bx			
	size(mm)	A				
	110	43	<b>2155.4</b> GBWR 5/130			
INTERNAL STOP-END		To cap socket of any gutter fitting	Code Col Pk/bx			
	size(mm)	A				
	110	33	<b>2156.4</b> B 5/200			

68  
mm62  
mm

GUTTER		Rectilinear profile Standard gutter length 4m	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS															
		<table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>T</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>120</td> <td>51</td> <td>2.2</td> </tr> </tbody> </table>	size(mm)	A	B	T	120	120	51	2.2	Code	Col	Pk/bx					
size(mm)	A	B	T															
120	120	51	2.2															
				<b>2250.5.40</b>	GBWR	5/0												
JOINT BRACKET		For joining gutter lengths	Code	Col	Pk/bx													
		<table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>114</td> <td>1.4</td> </tr> </tbody> </table>	size(mm)	A	Z	120	114	1.4		<b>2251.5</b>	GBWR	5/80						
size(mm)	A	Z																
120	114	1.4																
SUPPORT BRACKET		For supporting gutter lengths, angles and stop-end outlets	Code	Col	Pk/bx													
		<table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>134</td> <td>71</td> <td>81</td> </tr> </tbody> </table>	size(mm)	A	B	C	120	134	71	81		<b>2252.5</b>	GBWR	5/200				
size(mm)	A	B	C															
120	134	71	81															
RUNNING OUTLET		For connecting gutter run to downpipe	Code	Col	Pk/bx													
		<table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>193</td> <td>62</td> <td>44</td> <td>105</td> <td>75</td> </tr> </tbody> </table>	size(mm)	A	B	C	D	Z	120	193	62	44	105	75		<b>2253.5.23</b>	GBWR	5/30
size(mm)	A	B	C	D	Z													
120	193	62	44	105	75													
STOP-END OUTLET		To cap open gutter end and connect gutter to downpipe	Code	Col	Pk/bx													
		<table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>106</td> <td>62</td> <td>44</td> <td>106</td> <td>65</td> </tr> </tbody> </table>	size(mm)	A	B	C	D	Z	120	106	62	44	106	65		<b>2257.5.23</b>	GBWR	5/60
size(mm)	A	B	C	D	Z													
120	106	62	44	106	65													
GUTTER ANGLE		To change gutter run direction: 90°, 120° and 135° as standard	Code	Col	Pk/bx													
		<table border="1"> <thead> <tr> <th>size(mm)</th> <th>angle°</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>90</td> <td>95</td> </tr> <tr> <td>120</td> <td>120</td> <td>61</td> </tr> <tr> <td>120</td> <td>135</td> <td>55</td> </tr> </tbody> </table>	size(mm)	angle°	Z	120	90	95	120	120	61	120	135	55		<b>2254.5.90</b>	GBWR	5/40
size(mm)	angle°	Z																
120	90	95																
120	120	61																
120	135	55																
				<b>2254.5.120</b>	BW	5/50												
				<b>2254.5.135</b>	GBWR	2/60												
SHORT STOP-END		To cap open gutter end	Code	Col	Pk/bx													
		<table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>120</td> <td>43</td> </tr> </tbody> </table>	size(mm)	A	120	43		<b>2255.5</b>	GBWR	5/125								
size(mm)	A																	
120	43																	

75  
mm82  
mm110  
mm

## GUTTER

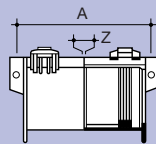
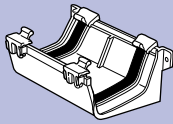
High capacity rectilinear profile  
Standard gutter length 4m

size(mm)	A	B	T
137	137	73	2.5

COLOUR CODES IN BOLD  
AVAILABLE AS SINGLE ITEMS

Code	Col	Pk/bx
<b>2350.6.40</b>	BW	4/0

## JOINT BRACKET

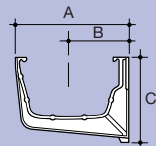
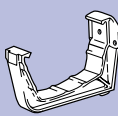


For joining gutter lengths

size(mm)	A	Z
137	149	2

Code	Col	Pk/bx
<b>2351.6.12</b>	BW	2/50

## SUPPORT BRACKET

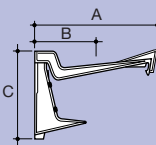
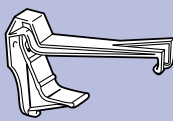


For supporting gutter lengths

size(mm)	A	B	C
137	153	82	115

Code	Col	Pk/bx
<b>2352.6</b>	BW	5/100

## OVERSLUNG BRACKET

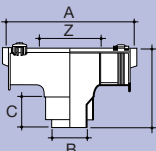
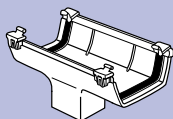


Leaves front face of gutter uncluttered for improved appearance

size(mm)	A	B	C
137	162	82	114

Code	Col	Pk/bx
<b>2352.150</b>	BW	5/90

## RUNNING OUTLET



For connecting gutter run to downpipe

To 75mm square downpipe					
size(mm)	A	B	C	D	Z
137	281	75	45	157	133

Code	Col	Pk/bx
<b>2353.6.33</b>	BW	5/15

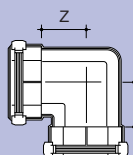
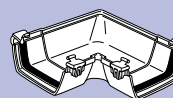
To 82mm round downpipe					
size(mm)	A	B	C	D	Z
137	281	75	50	174	133

Code	Col	Pk/bx
<b>2353.6.3</b>	BW	-/5

To 110mm round downpipe					
size(mm)	A	B	C	D	Z
137	281	103	50	157	133

Code	Col	Pk/bx
<b>2353.6.4</b>	B	5/15

## GUTTER ANGLE

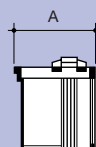


To change gutter run direction: 90° and 135° as standard

size(mm)	angle°	Z
137	90	85
137	135	40

Code	Col	Pk/bx
<b>2354.6.90</b>	BW	5/20
<b>2354.6.135</b>	BW	5/25

## SHORT STOP-END



To cap open gutter end

size(mm)	A
137	71

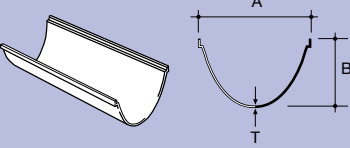
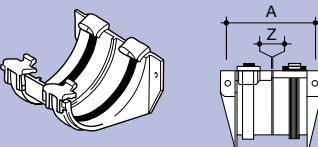
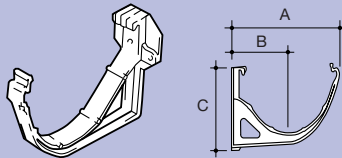
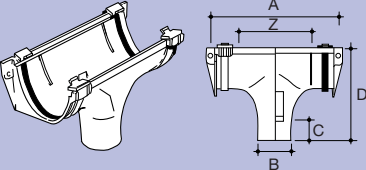
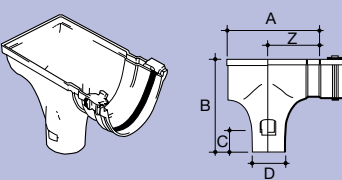
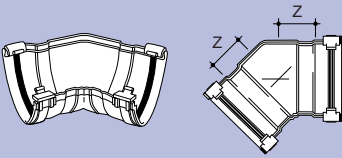
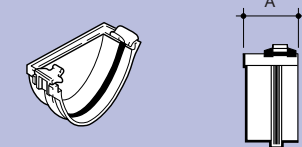
Code	Col	Pk/bx
<b>2355.6</b>	BW	5/120



68 mm

82 mm

COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS

GUTTER		Deep elliptical profile Standard gutter length 4m	Code			Col	Pk/bx			
	size(mm)	A	B	T						
	131	131	82	2.5	<b>2450.5.40</b>	BWR	5/0			
JOINT BRACKET		For joining gutter lengths	Code			Col	Pk/bx			
	size(mm)	A	Z							
	131	115	1.5	<b>2451.5</b>	BWR	4/64				
SUPPORT BRACKET		For supporting gutter lengths, angles and stop-end outlets	Code			Col	Pk/bx			
	size(mm)	A	B	C						
	131	145	76	115	<b>2452.5</b>	BWR	5/120			
RUNNING OUTLET		For connecting gutter run to downpipe	Code			Col	Pk/bx			
	To 68mm round downpipe		size(mm)	A	B	C	D	Z		
	131	266	68	35	188	144	<b>2453.5.25</b>	BWR	5/15	
	To 82mm round downpipe		size(mm)	A	B	C	D	Z		
	131	266	82	45	188	144	<b>2453.5.3</b>	B	5/15	
STOP-END OUTLET		To cap open gutter end and connect gutter to 68mm round downpipe	Code			Col	Pk/bx			
	size(mm)	A	B	C	D	Z				
	131	183	188	35	68	99	<b>2457.5.25</b>	BWR	5/25	
GUTTER ANGLE		To change gutter run direction: 90° and 135° as standard	Code			Col	Pk/bx			
	size(mm)	angle°	Z							
	131	90	109	<b>2454.5.90</b>	BWR	5/25				
	131	135	63	<b>2454.5.135</b>	BWR	5/40				
SHORT STOP-END		To cap open gutter end	Code			Col	Pk/bx			
	size(mm)	A								
	131	53	<b>2455.5</b>	BWR	5/150					



68 mm

62 mm

COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS

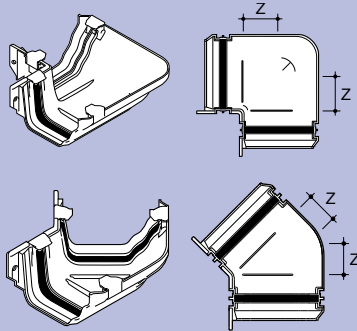
<p><b>GUTTER</b></p>	<p>Deep ogee profile Standard gutter length 4m</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>T</th> </tr> </thead> <tbody> <tr> <td>122</td> <td>122</td> <td>72</td> <td>2.5</td> </tr> </tbody> </table>	size(mm)	A	B	T	122	122	72	2.5	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td> <b>2550.5.40</b></td> <td>BWR</td> <td>5/0</td> </tr> </tbody> </table>	Code	Col	Pk/bx	<b>2550.5.40</b>	BWR	5/0										
size(mm)	A	B	T																							
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122	137	2.0																								
Code	Col	Pk/bx																								
<b>2551.5</b>	BWR	4/72																								
<p><b>UNDERSLUNG SUPPORT BRACKET</b></p>	<p>For supporting gutter lengths</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>122</td> <td>138</td> <td>70</td> <td>104</td> </tr> </tbody> </table> <p>2552.5 is for use with Rafter brackets</p> <table border="1"> <tbody> <tr> <td>122</td> <td>138</td> <td>70</td> <td>104</td> </tr> </tbody> </table>	size(mm)	A	B	C	122	138	70	104	122	138	70	104	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td> <b>2552.5C</b></td> <td>BWR</td> <td>10/200</td> </tr> <tr> <td> <b>2552.5</b></td> <td>BWR</td> <td>5/120</td> </tr> </tbody> </table>	Code	Col	Pk/bx	<b>2552.5C</b>	BWR	10/200	<b>2552.5</b>	BWR	5/120			
size(mm)	A	B	C																							
122	138	70	104																							
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<b>2552.5</b>	BWR	5/120																								
<p><b>OVERSLUNG SUPPORT BRACKET</b></p>	<p>Leaves front face of gutter uncluttered for improved appearance</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>122</td> <td>142</td> <td>70</td> <td>76</td> </tr> </tbody> </table>	size(mm)	A	B	C	122	142	70	76	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td> <b>2552.5.150</b></td> <td>BWR</td> <td>5/200</td> </tr> </tbody> </table>	Code	Col	Pk/bx	<b>2552.5.150</b>	BWR	5/200										
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122	142	70	76																							
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<b>2552.5.150</b>	BWR	5/200																								
<p><b>RUNNING OUTLET</b></p>	<p>For connecting gutter run to 68mm or 62mm downpipe</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>122</td> <td>261</td> <td>62</td> <td>41</td> <td>156</td> <td>125</td> </tr> </tbody> </table>	size(mm)	A	B	C	D	Z	122	261	62	41	156	125	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td> <b>2553.5.25</b></td> <td>BWR</td> <td>5/25</td> </tr> </tbody> </table>	Code	Col	Pk/bx	<b>2553.5.25</b>	BWR	5/25						
size(mm)	A	B	C	D	Z																					
122	261	62	41	156	125																					
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<b>2553.5.25</b>	BWR	5/25																								
<p><b>STOP-END OUTLET</b></p>	<p>To cap open gutter end and connect gutter to 68mm or 62mm downpipe Left (L) and Right (R) hand versions are available</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>122</td> <td>120</td> <td>62</td> <td>41</td> <td>156</td> </tr> <tr> <td>122</td> <td>120</td> <td>62</td> <td>41</td> <td>156</td> </tr> </tbody> </table>	size(mm)	A	B	C	D	122	120	62	41	156	122	120	62	41	156	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td> <b>2557.5.25L</b></td> <td>BWR</td> <td>5/40</td> </tr> <tr> <td> <b>2557.5.25R</b></td> <td>BWR</td> <td>5/40</td> </tr> </tbody> </table>	Code	Col	Pk/bx	<b>2557.5.25L</b>	BWR	5/40	<b>2557.5.25R</b>	BWR	5/40
size(mm)	A	B	C	D																						
122	120	62	41	156																						
122	120	62	41	156																						
Code	Col	Pk/bx																								
<b>2557.5.25L</b>	BWR	5/40																								
<b>2557.5.25R</b>	BWR	5/40																								
<p><b>INTERNAL GUTTER ANGLE</b></p>	<p>To change gutter run direction: 90° and 135° as standard</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>angle°</th> <th>Z</th> </tr> </thead> <tbody> <tr> <td>122</td> <td>90</td> <td>93</td> </tr> <tr> <td>122</td> <td>135</td> <td>27</td> </tr> </tbody> </table>	size(mm)	angle°	Z	122	90	93	122	135	27	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td> <b>2554.5.90I</b></td> <td>BWR</td> <td>5/20</td> </tr> <tr> <td> <b>2554.5.135I</b></td> <td>BW</td> <td>5/40</td> </tr> </tbody> </table>	Code	Col	Pk/bx	<b>2554.5.90I</b>	BWR	5/20	<b>2554.5.135I</b>	BW	5/40						
size(mm)	angle°	Z																								
122	90	93																								
122	135	27																								
Code	Col	Pk/bx																								
<b>2554.5.90I</b>	BWR	5/20																								
<b>2554.5.135I</b>	BW	5/40																								



68 mm

62 mm

### EXTERNAL GUTTER ANGLE



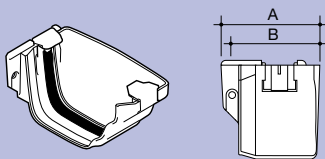
To change gutter run direction: 90° & 135° as standard

size(mm)	angle°	Z
122	90	67
122	135	23

COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS

Code	Col	Pk/bx
<b>2554.5.90E</b>	BWR	5/20
<b>2554.5.135E</b>	BWR	5/30

### SHORT STOP-END (EXTERNAL)

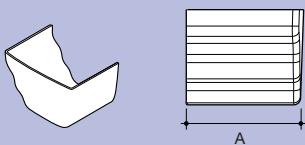


To cap open gutter end at external roofline boundaries  
Left (L) and Right (R) hand versions are available

size(mm)	A	B
122	83	75
122	83	75

Code	Col	Pk/bx
<b>2555.5L</b>	BWR	4/64
<b>2555.5R</b>	BWR	4/64

### INTERNAL STOP-END



To cap open fitting end and at internal roofline boundaries  
Left (L) and Right (R) hand versions are available

size(mm)	A
122	120
122	120

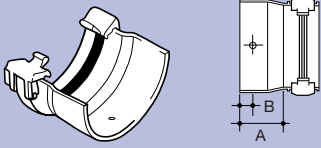
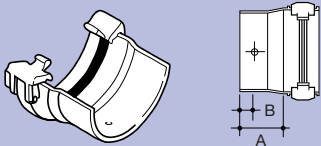
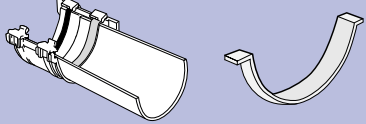
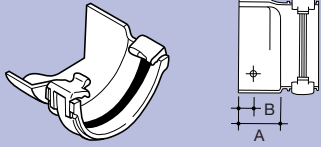
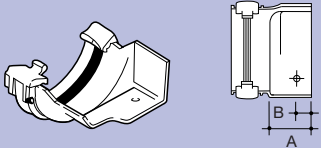
Code	Col	Pk/bx
<b>2556.5L</b>	W	4/80
<b>2556.5R</b>	W	4/80

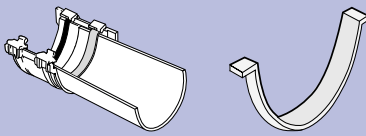

## COMPETITOR COMPATIBILITY CHART

The table below confirms the compatibility with other manufacturers' rainwater systems and identifies the product code for any adaptor required.

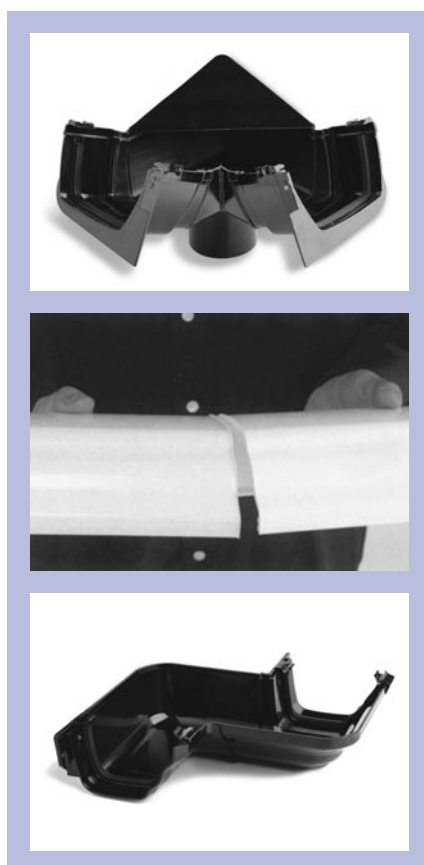
<b>TERRAIN</b>	2150	2250	2450	2550	68mm	62mm	82mm	110mm
	Crescent	Corniche	Rapidflow	Omega	Downpipe	Downpipe	Downpipe	Downpipe
Floplast	✓ 2167.4	✓ 5707/DJG	✓ 2467.5	✓ 6182/DVW	✓	✓ 5608/DJG	✓	✓
Hepworth	✓ 2167.4	✓ 5707/DJG	✓ 2467.5	✓ 6177/DVW	✓	✓ 5608/DJG	✓	✓
Hunter	✓ 2167.4	✓ 5289/DJG	✓ 2467.5	✓ 6179/DVW	✓	✓ 5608/DJG	✓	✓
Marley	✓ 2167.4	✓ 5285/DJG	✓ 2467.5 or 2458.5D	✓ 6180/DVW	✓	✓ 5608/DJG	✓	✓
Marshall Tufflex	✓ 2167.4	✓ 5851/DJG	✓ 2467.5	✓ 6464/DJG	✓	✓ 5608/DJG	✓	✓
Osmo	✓ 2167.4	✓ 5287/DJG	✓ 2467.5	✓ 6178/DVW	✓	✓ 5608/DJG	✓	✓
Polypipe	✓ 2167.4	✓ 6139/DJG	✓ 2467.5	✓ 6181/DVW	✓	✓ 5608/DJG	✓	✓

		COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS									
	For connecting gutter support bracket and strap to side of open rafter end										
	For 2100 Crescent and 2200 Corniche	A	B	C C	D	Code	Col	Pk/bx			
				(min) (max)							
		91	157	13 53	19	2160	B	5/70			
	For 2300 Streamline, 2400 Rapidflow and 2500 Omega	A	B	C C	D	Code	Col	Pk/bx			
				(min) (max)							
		115	155	13 110	19	2360	B	5/60			
		For connecting gutter support bracket and strap to top edge of open rafter end									
For 2100 Crescent and 2200 Corniche		A	B	C C		Code	Col	Pk/bx			
				(min) (max)							
		86	250	26 79		2161	B	5/70			
	For 2300 Streamline, 2400 Rapidflow and 2500 Omega	A	B	C C		Code	Col	Pk/bx			
				(min) (max)							
		115	250	26 104		2361	B	10/70			
		To support gutter support bracket and strap where no fascia or rafters are available									
For 2100 Crescent and 2200 Corniche		A	B	C D E		Code	Col	Pk/bx			
		260	130	50 62 43		2162	self	1/25			
	For 2300 Streamline, 2400 Rapidflow and 2500 Omega	A	B	C D E		Code	Col	Pk/bx			
		275	152	83 93 57		2362	self	5/25			
		Provides support for gutter fittings (running outlets and joint brackets) where fitting to rafters is required									
		A	B B	C C	D D	E	F F	G	Code	Col	Pk/bx
			(min) (max)	(min) (max)	(min) (max)		(min) (max)				
		310	266 281	235 241	193 212	149	115 127	25	2265	self	5/75
	To increase stand-off distance of gutter support bracket										
	For 2100 Crescent and 2200 Corniche	A	B			Code	Col	Pk/bx			
		76	16			2166	B	10/500			
	To compensate for 22 1/2° of sloping fascia										
	For 2100 Crescent and 2200 Corniche	A	B			Code	Col	Pk/bx			
		76	33			2166.22	B	10/500			

		COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS												
<p><b>CRESCENT TO 4 1/2" CAST IRON SPIGOT</b></p> 	<p>Socket adaptor to receive spigot end of half-round cast iron gutter</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>57</td> <td>22</td> </tr> </tbody> </table>	size(mm)	A	B	110	57	22	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td>2158.4.45</td> <td><b>GB</b></td> <td>2/80</td> </tr> </tbody> </table>	Code	Col	Pk/bx	2158.4.45	<b>GB</b>	2/80
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Code	Col	Pk/bx												
2158.4.45	<b>GB</b>	2/80												
<p><b>CRESCENT TO 4 1/2" CAST IRON SOCKET</b></p> 	<p>Spigot-end adaptor for linking into socket-end of half-round cast iron gutter</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>57</td> <td>19</td> </tr> </tbody> </table>	size(mm)	A	B	110	57	19	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td>2159.4.45</td> <td><b>GB</b></td> <td>2/80</td> </tr> </tbody> </table>	Code	Col	Pk/bx	2159.4.45	<b>GB</b>	2/80
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Code	Col	Pk/bx												
2159.4.45	<b>GB</b>	2/80												
<p><b>ADAPTOR TO OTHER PVC-U GUTTERS</b></p> 	<p>2100 adaptor to all round rainwater systems</p> <table border="1"> <thead> <tr> <th>size(mm)</th> </tr> </thead> <tbody> <tr> <td>110</td> </tr> </tbody> </table>	size(mm)	110	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td>2167.4</td> <td>self</td> <td>10/400</td> </tr> </tbody> </table>	Code	Col	Pk/bx	2167.4	self	10/400				
size(mm)														
110														
Code	Col	Pk/bx												
2167.4	self	10/400												
<p><b>CRESCENT TO 4 1/2" OGEE CAST IRON SPIGOT</b></p> 	<p>Socket adaptor to receive spigot end of ogee cast iron gutter</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>62</td> <td>22</td> </tr> </tbody> </table>	size(mm)	A	B	110	62	22	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td>2168.4.45</td> <td><b>B</b></td> <td>2/60</td> </tr> </tbody> </table>	Code	Col	Pk/bx	2168.4.45	<b>B</b>	2/60
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<p><b>CRESCENT TO 4 1/2" OGEE CAST IRON SOCKET</b></p> 	<p>Spigot-end adaptor for linking into socket-end of ogee cast iron gutter</p> <table border="1"> <thead> <tr> <th>size(mm)</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>110</td> <td>62</td> <td>22</td> </tr> </tbody> </table>	size(mm)	A	B	110	62	22	<table border="1"> <thead> <tr> <th>Code</th> <th>Col</th> <th>Pk/bx</th> </tr> </thead> <tbody> <tr> <td>2169.4.45</td> <td><b>B</b></td> <td>2/60</td> </tr> </tbody> </table>	Code	Col	Pk/bx	2169.4.45	<b>B</b>	2/60
size(mm)	A	B												
110	62	22												
Code	Col	Pk/bx												
2169.4.45	<b>B</b>	2/60												

ADAPTOR CLIP TO OTHER PVC-U GUTTERS	2400 adaptor to all deepflow round systems size(mm)	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS		
		Code	Col	Pk/bx
	131	<b>2467.5</b>	self	10/100
GUTTER OUTLET GUARD	For placement over outlet aperture to reduce risk of downpipe blockages by leaves, other debris etc. Suitable for 68mm round and 62mm square outlets size(mm)	Code	Col	Pk/bx
		<b>9915.25</b>	B	10/500
				
LUBRICANT	For lubricating seal rings on expansion fittings size(ml)	Code	Col	Pk/bx
		<b>9136.50</b>		1
	250	<b>9136.250</b>		1/150
GUTTER SEAL	Replacement seals for gutter fittings at connection points	Code	Col	Pk/bx
		<b>9911</b>	self	1/1400
	for 2100 Crescent	<b>9922</b>	self	1/1000
	for 2200 Corniche	<b>9933</b>	self	1/1000
	for 2300 Streamline and 2500 Omega	<b>9944</b>	self	1/1400
	for 2400 Rapidflow			

## THE TERRAIN FABRICATION SERVICE



### Standard Specials

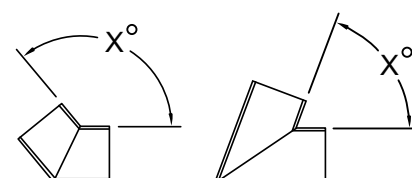
Code	Description	Col	Price £
F2154.4.X	Crescent special angle	GBWR	
F2154.4.X.YT	Crescent raked angle	GBWR	
F2254.5.X	Corniche special angle	GBWR	
F2254.5.X.YT	Corniche raked angle	GBWR	
F2259.4.5.CI	Corniche to 5" x 3" hr C.I.	GBWR	
F2259.5.5.AS	Corniche to 5" hr asbestos	GBWR	
F2354.6X	Streamline special angle	BW	
F2354.6E.X.YT	Streamline raked ext angle	BW	
F2454.5.X	Rapidflow special angle	BWR	
F2115.3.CI.25	68mm PVC-u to 3" C.I.	GBW	
F2115.35.CI.25	68mm PVC-u to 3 3/4" C.I.	GBWR	
F2208.23.X	62mm special angle	GBWR	

Our bespoke Fabrication Service helps specifiers and contractors overcome problems both at the design stage, and on site. Our comprehensive and professional service can provide solutions to the most demanding problems.

Enquiries for special fabrications should be directed to our Technical Department (01622 795200) who will assist in the design of your requirement as necessary. Lead times may vary based on the complexity of your requirement, so please confirm this when placing your order.

Please note when ordering special gutter angles, you will need to specify the internal angle required for your application as illustrated below.

Example





DOWNPIPE		Plain ended lengths			COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS				
		size(mm)	L	T	Code	Col	Pk/bx		
		68	2.5m	1.8	<b>2100.25.25</b>	GBWR	5/0		
		68	3.0m	1.8	<b>2100.25.30</b>	GBWR	5/0		
		68	4.0m	1.8	<b>2100.25.40</b>	GBWR	5/0		
		68	5.5m	1.8	<b>2100.25.55</b>	GBWR	5/0		
STRAIGHT COUPLER		For joining pipe lengths. Fittings grooved to locate downpipe bracket			Code	Col	Pk/bx		
		68	8		<b>2107.25</b>	GBWR	5/120		
SHORT BEND		To change pipe direction: 92 $\frac{1}{2}$ ° and 112 $\frac{1}{2}$ ° bends To construct 'swan necks', use two 112 $\frac{1}{2}$ ° bends			Code	Col	Pk/bx		
		68	92 $\frac{1}{2}$	44	32	<b>2108.25.92</b>	GBWR	5/110	
		68	112 $\frac{1}{2}$	32	22	<b>2108.25.112</b>	GBWR	5/140	
LONG RADIUS BEND		To change pipe direction: 112 $\frac{1}{2}$ ° Prevents dislocation of swan neck			Code	Col	Pk/bx		
		68	112 $\frac{1}{2}$	54	55	<b>2101.25.112</b>	BWR	5/70	
SHOE		To terminate rainwater downpipe discharging over gully			Code	Col	Pk/bx		
		68	51	67	<b>2110.25</b>	GBWR	5/85		
BRANCH		To join 68mm branch pipe to 68mm vertical pipe at an angle 90° and 112 $\frac{1}{2}$ °			Code	Col	Pk/bx		
		68	90	29	54	54	<b>2109.25.92</b>	GBWR	5/110
		68	112 $\frac{1}{2}$	29	54	54	<b>2109.25.112</b>	GBWR	5/55



PIPE FITTING BRACKET		To secure downpipe to wall	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS										
size(mm)		A	B	C	Code	Col	Pk/bx						
		68	66	131	114	<b>2116.25</b>	<b>GBWR</b>	5/180					
PIPE FITTING CLIP		Minimum stand-off distance (to back of pipe): 32mm	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS										
size(mm)		A	B	C	Code	Col	Pk/bx						
		68	66	90	110	<b>2113.25</b>	<b>GBWR</b>	5/180					
CENTRAL FIXING CLIP		Minimum stand-off distance (to back of pipe): 32mm	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS										
size(mm)		A	B			Code	Col	Pk/bx					
		68	70	40		<b>2113.25C</b>	<b>BWR</b>	5/180					
PIPE AND FITTING BRACKET (ADJUSTABLE)		Allows up to 10mm stand-off adjustment	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS										
size(mm)		A* (min)	B			Code	Col	Pk/bx					
		68	63	51		<b>2112.25.T</b>	<b>GBW</b>	10/100					
		*A max = 73mm											
PIPE AND FITTING BRACKET (DRIVE-IN)		Minimum stand-off distance (to back of pipe): 52mm	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS										
size(mm)		A			Code	Col	Pk/bx						
		68	210			<b>2112.25.D</b>	<b>BW</b>	5/25					
ACCESS PIPE		To allow pipe cleaning or inspection	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS										
size(mm)		Z1	Z2			Code	Col	Pk/bx					
		68	76	51		<b>2137.25</b>	<b>BWR</b>	5/35					
RAINWATER HEAD		To collect surface water at roof level where gutters are not possible	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS										
size(mm)		A	B	C	D	E	F	G	H	Code	Col	Pk/bx	
		68	250	140	66	273	38	179	44	64	<b>2111.25</b>	<b>GBWR</b>	5/15



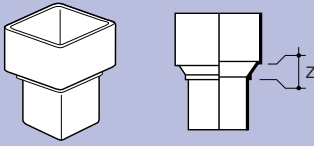
DOWNPIPE		Plain ended lengths		COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS									
		size(mm)	L	T (min)	Code	Col	Pk/bx						
		62	2.5m	1.8	<b>2200.23.25</b>	GBWR	5/0						
		62	3.0m	1.8	<b>2200.23.30</b>	GBWR	5/0						
		62	4.0m	1.8	<b>2200.23.40</b>	GBWR	5/0						
		62	5.5m	1.8	<b>2200.23.55</b>	GBWR	5/0						
STRAIGHT CONNECTOR		For joining pipe lengths		Code	Col	Pk/bx							
		size(mm)	Z										
		62	6	<b>2207.23</b>	GBWR	5/120							
BEND		To change pipe direction: 92 <sup>1</sup> / <sub>2</sub> ° and 112 <sup>1</sup> / <sub>2</sub> ° bends as standard To construct 'swan necks', use two 112 <sup>1</sup> / <sub>2</sub> ° bends		Code	Col	Pk/bx							
		size(mm)	angle°	Z1	Z2								
		62	92 <sup>1</sup> / <sub>2</sub>	30	40	<b>2208.23.92</b>	GBWR	5/120					
		62	112 <sup>1</sup> / <sub>2</sub>	24	32	<b>2208.23.112</b>	GBWR	5/60					
BRANCH		To join 62mm branch pipe to 62mm vertical pipe at an angle 112 <sup>1</sup> / <sub>2</sub> °		Code	Col	Pk/bx							
		size(mm)	angle°	Z1	Z2	Z3							
		62	112 <sup>1</sup> / <sub>2</sub>	20	49	87	<b>2209.23.112</b>	GBWR	5/65				
WALL OFFSET		To allow downpipe to accommodate wall plinth or other obstruction up to 25mm		Code	Col	Pk/bx							
		size(mm)	A	Z									
		62	27	108	<b>2214.23</b>	GBWR	5/85						
SHOE		To terminate rainwater downpipe discharging over gully		Code	Col	Pk/bx							
		size(mm)	A	Z									
		62	51	64	<b>2210.23</b>	GBWR	5/100						
RAINWATER HEAD		To collect surface water at roof level where gutters are not possible		Code	Col	Pk/bx							
		size(mm)	A	B	C	D	E	F	G	H			
		62	274	128	44	295	38	179	44	58	<b>2211.23</b>	GBWR	5/20



ADAPTOR (SQUARE TO ROUND)		For connecting 62mm square to 68mm round down pipe	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS		
		size(mm) Z	Code	Col	Pk/bx
		62/68 24	2215.23.25	GBWR	5/160
PIPE AND FITTING BRACKET (ADJUSTABLE)		Allows up to 32mm stand-off adjustment			
		size(mm) A* B C	Code	Col	Pk/bx
		62 42 102 126	2212.23	GBWR	10/100
		*A max = 70mm			
PIPE AND FITTING BRACKET		Stand-off distance (to back of pipe): 13mm			
		size(mm) A B C	Code	Col	Pk/bx
		62 44 111 127	2213.23	GBWR	5/200
LONG STAND-OFF DOWNPIPE BRACKET		Stand-off distance (to back of pipe): 31mm			
		size(mm) A B C	Code	Col	Pk/bx
		62 62 93 109	2216.23	GBWR	10/200
ACCESS PIPE		To allow pipe cleaning or inspection			
		size(mm) Z1 Z2	Code	Col	Pk/bx
		62 150 300	2237.23	BWR	-/15



DOWNPIPE		Plain ended lengths			COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS		
		size(mm)	L	T (min)	Code	Col	Pk/bx
		75	4.0m	2	<b>2300.33.40</b>	BW	5/0
STRAIGHT CONNECTOR		For joining pipe lengths			Code	Col	Pk/bx
		75	8		<b>2307.33</b>	BW	5/80
BEND		To change pipe direction: 112 1/2° bends To construct 'swan necks', use two 112 1/2° bends			Code	Col	Pk/bx
		75	112 1/2	29 36	<b>2308.33.112</b>	BW	5/80
SHOE		To terminate rainwater downpipe discharging over gully			Code	Col	Pk/bx
		75	55	68	<b>2310.33</b>	BW	2/60
PIPE AND FITTING BRACKET		Stand-off distance (to back of pipe): 13mm			Code	Col	Pk/bx
		75	50	124 140	<b>2313.33</b>	BW	5/160
WALL OFFSET		To allow downpipe to accommodate wall plinth or other obstruction up to 57mm			Code	Col	Pk/bx
		75	57	127	<b>2314.33</b>	BW	2/36
BRANCH		To join 75mm branch pipe to 75mm vertical pipe at an angle 112 1/2°			Code	Col	Pk/bx
		75	112 1/2	48 65 67	<b>2309.33.112</b>	BW	5/20

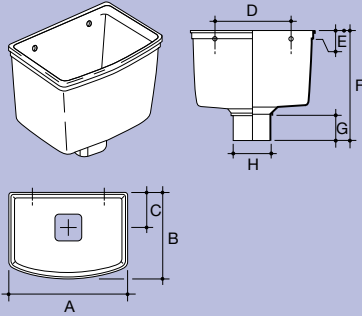
**ADAPTOR  
(SQUARE TO SQUARE)**

To adapt 2353.6.33 Running Outlet/Pipe to discharge into 2200 Downpipe (62mm square)

size(mm)	L
75/62	16

COLOUR CODES IN BOLD  
AVAILABLE AS SINGLE ITEMS

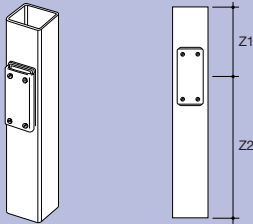
Code	Col	Pk/bx
2315.33.23	<b>BW</b>	5/100

**RAINWATER HEAD**

To collect surface water at roof level where gutters are not possible

size(mm)	A	B	C	D	E	F	G	H	Code	Col	Pk/bx
75	253	180	75	153	15	234	45	70	2311.33	<b>BW</b>	5/10

Code	Col	Pk/bx
2311.33	<b>BW</b>	5/10

**ACCESS PIPE**

To allow pipe cleaning or inspection

size(mm)	Z1	Z2
75	150	300

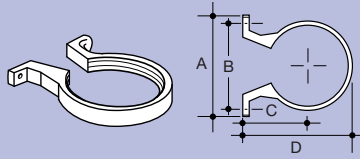
Code	Col	Pk/bx
2337.33	<b>B</b>	1/30



DOWNPIPE		Plain ended lengths			COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS								
		size(mm)	L	T (min)	Code	Col	Pk/bx						
		82	4.0m	2	<b>2100.3.40</b>	BWR	2/0						
STRAIGHT COUPLER (DOUBLE SOCKET)		For joining pipe lengths			Code	Col	Pk/bx						
		82	92	3	<b>2107.3</b>	BWG	5/50						
SWEPT BEND		To change pipe direction: 92 <sup>1</sup> / <sub>2</sub> °, 112 <sup>1</sup> / <sub>2</sub> ° and 135° as standard To construct 'swan necks', use two 112 <sup>1</sup> / <sub>2</sub> ° bends			Code	Col	Pk/bx						
		size(mm)	angle°	Z1	Z2	<b>2101.3.92</b>	BW	5/20					
		82	112 <sup>1</sup> / <sub>2</sub>	43	75	<b>2101.3.112</b>	BWR	5/40					
		82	135	16	22	<b>2101.3.135</b>	B	5/25					
BRANCH (ALL SOCKET)		To join branch pipe to same size vertical pipe at an angle 92 <sup>1</sup> / <sub>2</sub> °, 112 <sup>1</sup> / <sub>2</sub> ° and 135°			Code	Col	Pk/bx						
		size(mm)	angle°	Z1	Z2	Z3	<b>2109.3.92</b>	BG	1/25				
		82	92 <sup>1</sup> / <sub>2</sub>	70	83	35	<b>2109.3.112</b>	BG	1/25				
		82	112 <sup>1</sup> / <sub>2</sub>	71	83	35							
SHOE		To terminate rainwater downpipe discharging over gully			Code	Col	Pk/bx						
		size(mm)	A	Z	<b>2110.3</b>	BW	5/60						
		82	64	86									
RAINWATER HEAD		To collect surface water at roof level where gutters are not possible			Code	Col	Pk/bx						
		size(mm)	A	B	C	D	E	F	G	H	<b>2111.3</b>	BWG	5/20
		82	254	180	75	153	15	222	51	75			



### ONE-PIECE DOWNPIPE BRACKET



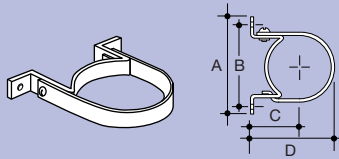
To support pipe and fittings – stand-off distance (to back of pipe): 35mm

size(mm)	A	B	C	D
82	132	110	76	117

COLOUR CODES IN BOLD  
AVAILABLE AS SINGLE ITEMS

Code	Col	Pk/bx
143.3	BWR	5/150

### TWO-PIECE DOWNPIPE BRACKET

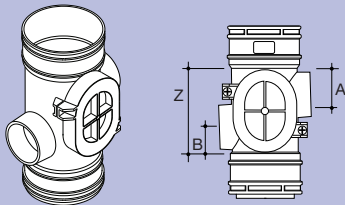


To support pipe and fittings

size(mm)	A	B	C	D
82	140	114	76	124

Code	Col	Pk/bx
140.3.PC	BW	10/40

### ACCESS PIPE

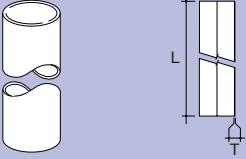

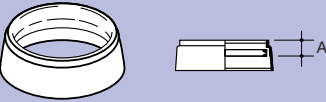

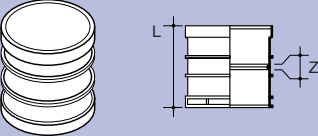

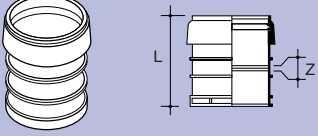

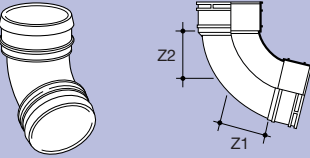

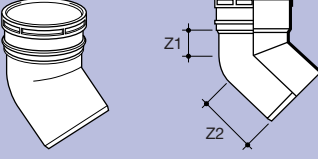

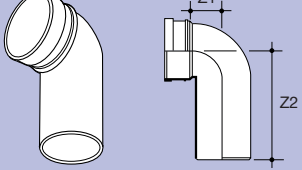



To allow pipe cleaning or inspection

size(mm)	A	B	Z
82	41	39	120

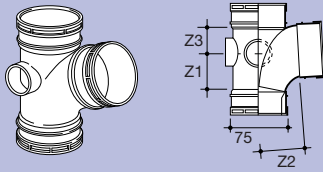
Code	Col	Pk/bx
2137.3	R	1/28



DOWNPIPE		Plain ended lengths	COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS						
			size(mm)	L	T (min)	Code	Col	Pk	
			110	3.0m	2.44	 <b>100.4.30</b>	GBW	2	
			110	4.0m	2.44	<b>100.4.40</b>	GBW	2	
SEAL RING ADAPTOR		To convert standard solvent-weld socket to ring seal (expansion) fitting	size(mm)	A		Code	Col	Pk/bx	
			110	21		 <b>109.4</b>	GBW	5/180	
STRAIGHT COUPLER		For joining pipe lengths	size(mm)	L	Z	Code	Col	Pk/bx	
			110	102	3	 <b>110.4</b>	GBW	5/60	
EXPANSION COUPLER		To create expansion joint when joining pipe lengths in a solvent system	size(mm)	L	Z	Code	Col	Pk/bx	
			110	123	3	 <b>111.4</b>	GBW	-/10	
SWEPT BEND		To change pipe direction: 92 <sup>1</sup> / <sub>2</sub> °, 112 <sup>1</sup> / <sub>2</sub> ° and 135° as standard	size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
			110	92 <sup>1</sup> / <sub>2</sub>	75	83	 <b>101.4.92</b>	BW	-/10
			110	112 <sup>1</sup> / <sub>2</sub>	65	63	<b>101.4.112</b>	GBW	5/20
			110	135	30	30	<b>101.4.135</b>	GBW	5/30
SPIGOT BEND		To change pipe direction in limited-space situation	size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
			110	135	30	30	 <b>107.4.135</b>	GBW	-/15
SPIGOT BEND (LONG TAIL)		To change pipe direction in limited-space situation	size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx
			110	92 <sup>1</sup> / <sub>2</sub>	75	83	 <b>107.4.92</b>	GBW	-/10



## BRANCH (ALL SOCKET)



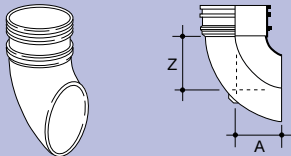
To join branch pipe to same size vertical pipe at an angle 92 $\frac{1}{2}$ ° and 135° as standard

size(mm)	angle°	Z1	Z2	Z3
110	92 $\frac{1}{2}$	82	82	54
110	135	25	137	137

COLOUR CODES IN BOLD  
AVAILABLE AS SINGLE ITEMS

Code	Col	Pk/bx
<b>104.4.92</b>	GBW	-/7
<b>104.4.135</b>	GBW	-/6

## SHOE

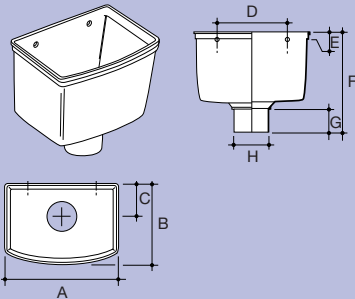


To terminate rainwater downpipe discharging over gully

size(mm)	A	Z
110	77	86

Code	Col	Pk/bx
<b>2110.4</b>	B	5/30

## RAINWATER HEAD

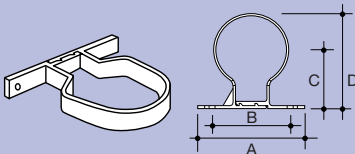


To collect surface water at roof level where gutters are not possible – example: adjacent to roof valley

size(mm)	A	B	C	D	E	F	G	H
110	254	180	90	153	15	222	51	102

Code	Col	Pk/bx
<b>2111.4</b>	BWRG	5/20

## ONE-PIECE DOWNPIPE BRACKET

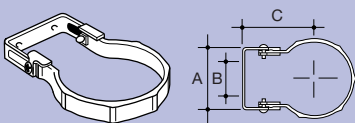


To support pipe and fittings – stand-off distance (to back of pipe): 35mm

size(mm)	A	B	C	D
110	146	124	91	151

Code	Col	Pk/bx
<b>143.4</b>	GBW	10/80

## ADJUSTABLE DOWNPIPE BRACKET

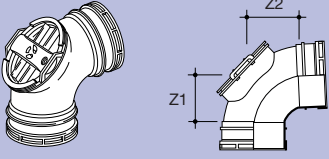

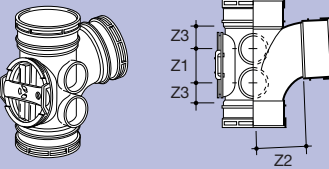

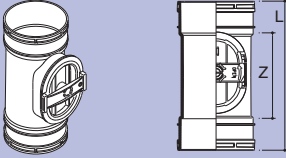

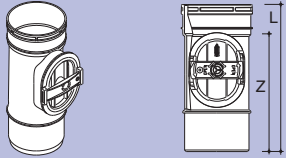

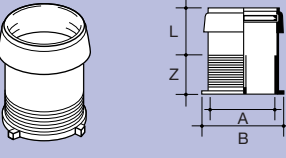



To support pipe and fittings  
Allows up to 28mm stand-off adjustment  
Minimum stand-off distance 26mm

size(mm)	A	B	C (max)	C (min)
110	99	64	108	80

Code	Col	Pk/bx
<b>144.4</b>	BW	1/30



ACCESS BEND (DOUBLE SOCKET)		To allow pipe cleaning or inspection				COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS			
		size(mm)	angle°	Z1	Z2	Code	Col	Pk/bx	
		110	92½	102	98	 <b>103.4.92</b>	GBW	5/15	
<b>ACCESS BRANCH</b>		To allow pipe cleaning or inspection at junction of two pipes							
		size(mm)	angle°	Z1	Z2	Z3	Code	Col	Pk/bx
		110	92½	99	96	50	 <b>105.4.92</b>	GBW	-/6
<b>ACCESS PIPE</b>		To allow pipe cleaning or inspection							
		size(mm)	L	Z			Code	Col	Pk/bx
		110	234	135			 <b>138.4</b>	GBWR	-/10
<b>ACCESS PIPE</b>		To allow pipe cleaning or inspection							
		size(mm)	L	Z			Code	Col	Pk/bx
		110	252	201			 <b>139.4</b>	GBW	-/10
<b>CAULKING BUSH</b>		For connecting pipe to sockets made of other materials							
		size(mm)	A	B	L	Z	Code	Col	Pk/bx
		110	124	133	130	73	 <b>132.4</b>	G	5/40




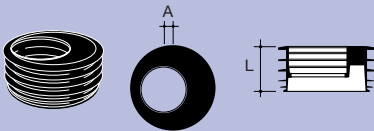
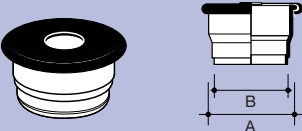

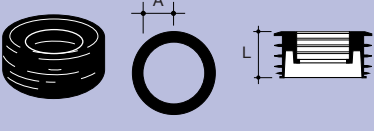
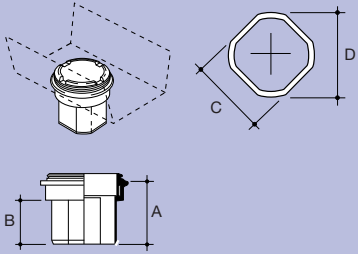
<p><b>FLAT ROOF OUTLET (LARGE)</b></p>		To drain surface water from flat roofs Suitable for most roof finishes						COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS		
		size(mm)	A	B	C	D	E	F	Code	Col
<p><b>FLAT ROOF OUTLET (SMALL DIAMETER)</b></p>		To drain surface water from porches, garages and small balconies Suitable for mineral felt or single layer plastic roofs								
		size(mm)	A	B	C	D	E	F	Code	Col
<p><b>DOMED ROOF OUTLET (LARGE)</b></p>		To drain surface water from flat roofs Suitable for most roof finishes								
		size(mm)	A	B	C	D	E	F	G	Code
<p><b>DOMED ROOF OUTLET (SMALL DIAMETER)</b></p>		To drain surface water from porches, garages and small balconies Suitable for mineral felt or single layer plastic roofs								
		size(mm)	A	B	C	D	E	F	Code	Col
<p><b>VENT PIPE OUTLET SOCKET</b></p>		Special vented type for combined systems Suitable for most roof finishes								
		size(mm)	A	B	C	D	E	F	G	Code
<p><b>INVERTED ROOF OUTLET</b></p>		To allow for drainage from two levels as required with inverted roof construction								
		size(mm)	A	B	C	D	E	F	G	Code



BALCONY OUTLET		For screed-finished balconies							COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS			
	<p>Connects to 82mm round downpipe can be reduced via socket Adaptors</p> <ul style="list-style-type: none"> <li>- 2173.3.25 for 68mm round pipe</li> <li>- 2273.3.23 for 62mm round pipe</li> </ul> <p>When used singly or at top of multi-storey building, use 9995.3 Blanking Cap</p> <p>*Min size hole for roof slab</p>	size(mm)	A	B	C	D	E*	F	G	Code	Col	Pk/bx
		82	48	27	59	170	94	13	68	2172.3	G	1/12
	<p>For asphalt-finished balconies</p> <p>Details as 2172.3 above</p> <p>*Min size hole for roof slab</p>	size(mm)	A	B	C	D	E*	F	G	Code	Col	Pk/bx
		82	48	27	59	170	94	13	68	2174.3	G	1/0
	<p>To connect socket of 2172.3 and 2174.3 Balcony Outlets to 68mm round downpipe</p>	size(mm)	A	B	L	Z			Code	Col	Pk/bx	
		82/68	82	68	60	45			2173.3.25	G	5/140	
	<p>To connect socket of 2172.3 and 2174.3 Balcony Outlets to 62mm square downpipe</p>	size(mm)	A	B	L	Z			Code	Col	Pk/bx	
		82/62	82	62	60	45			2273.3.23	GW	5/190	
<p>CAP FOR BALCONY OUTLET</p>	<p>For use with 2173.3.25 and 2273.23 when used singly or at top of multi-storey building</p>								Code	Col	Pk/bx	
									9995.3	G	1/250	
<p>SPARE GRID</p>	<p>Spare Grid for Balcony Outlet</p> <p>for 2172</p> <p>for 2174</p> <p>Spare Grid for Flat Roof Outlet</p> <p>for 2170</p> <p>for 2180.3</p> <p>Spare Grid for Domed Roof Outlet</p> <p>for 2171</p> <p>for 2181.2/2181.3</p>								Code	Col	Pk	
									9990	G	1	
							9999	G	1			
							9981	G	1			
							9972	G	1			
							9980	G	1			
							9970	G	1			
	<p>*Please note these fittings are part of our soil and waste range and priced accordingly</p>	size(mm)								Code	Col	Pk/bx
									To connect 2170.3, 2171.3, 2180.3 and 2181.3 outlets to downpipe		82	107.3.92
							To connect 2170.4 and 2171.4 outlets to downpipe		110	107.4.92	G	-/10
							To connect 2180.2 and 2181.2 outlets to downpipe		50	207.2.92	G	5/60

# Terrain Downpipe Adaptors

**TERRAIN**

<b>ADAPTOR TO UNDERGROUND DRAIN</b> 		For connecting 68mm downpipe to 82mm underground drain size(mm)    L 68/82    54		COLOUR CODES IN BOLD AVAILABLE AS SINGLE ITEMS		
<b>ADAPTOR TO UNDERGROUND DRAIN</b> 		For connecting 68mm downpipe to 110mm underground drain size(mm)    L    A 68/110    54    10		Code    Col    Pk/bx 4DW25    B    5/50		
<b>UNIVERSAL RAINWATER ADAPTOR</b> 		Connects 68mm or 62mm square downpipe to 110mm underground drain Fits both pipe end and socket Not for connection to foul drainage size(mm)    A    B 68/110    110    102		Code    Col    Pk/bx 4D76    B    10/50		
<b>ADAPTOR TO UNDERGROUND DRAIN</b> 		Connects 62mm or 75mm downpipe to 110mm underground drain For connection of 75mm square pipe use 4DW23 with 2315.33.23 adaptor (page 16) size(mm)    L 62/110    54		Code    Col    Pk/bx 4DW23    B    5/50		
<b>ADAPTOR TO UNDERGROUND DRAIN</b> 		Connects 82mm downpipe to 110mm underground drain size(mm)    L 82/110    58		Code    Col    Pk/bx 4DW3    B    5/50		
<b>SCREWED OUTLET ADAPTOR</b> 		Spigot outlet to be set into gutter base Allows connection to 75mm square downpipe *Use 75mm hole cutter size(mm)    A    B    C    D 75    68    45    70    75		Code    Col    Pk/bx 2368.3    B    5/70		

GUTTERS

	downpipe options	68mm round	62mm square	75mm square	82mm square	110mm round	key options	stop end outlet	gutter angle 90°	gutter angle 120°	gutter angle 135°	adaptors to	4 1/2" CI spigot	4 1/2" CI socket	4 1/2" Ogee CI spigot	4 1/2" Ogee CI socket	Other PVC-U Manufacturers	Marley Deepflow	colour	grey	black	white	rustic
2100 Crescent	■						■	■	■	■		■	■	■	■	■			■	■	■	■	
2200 Corniche	■	■					■	■	■	■			■	■	■	†			■	■	■	■	
2300 Streamline		■*	■	■	■			■	■							■	†				■	■	
2400 Rapidflow	■			■			■	■	■							■	†			■	■	■	
2500 Omega	■	■					■	■	■			■	■	■	■	†					■	■	■

NB other adaptors available on request

bracket fixings – available for side and top rafter fixing.  
Rise and fall drive in brackets also available

\* Adaptor required

† Special fitting (Prefab)

DOWNPIPES

	gutter suitability	2100 Crescent	2200 Corniche	2300 Streamline	2400 Rapidflow	2500 Omega	key options	92 1/2° bend	112 1/2° bend	112 1/2° long radius bend	135° bend	single branch	double branch	wall offset	pipe and fitting clip	drive-in pipe clip	adjustable pipe clip	colour	grey	black	white	rustic
68mm round	■	■*		■	■		■	■		■	■	■	■	■	■	■		■	■	■	■	
62mm square		■	■*		■		■			■	■	■	■	■	■	■		■	■	■	■	
75mm square			■				■			■	■	■	■	■	■	■				■	■	
82mm round			■	■			■		■	■	■	■	■	■	■	■				■	■	
110mm round			■				■	■	■	■	■	■	■	■	■	■				■	■	■

BALCONY OUTLETS

	downpipe options	68mm round	62mm square	75mm square	82mm square	110mm round	application	balconies	small balconies	porches	garages	flat roofs general	flat roofs combined	flat roofs inverted	surface finish compatibility	screed	asphalt	mineral felt	single layer plastic	general roof finish	
2172.3 screed finish	■*	■*		■			■							■							
2174.3 asphalt finish	■*	■*		■			■	■	■	■						■					

\*With adaptor 2173.3.25

ROOF OUTLETS

2171.3A inverted roof outlet			■	■								■									■
2171.34 vent pipe outlet				■								■					■				■
2181.3 domed (small)			■				■	■	■											■	■
2171.3 domed (large)			■	■						■										■	■
2180.3 small			■				■	■	■											■	■
2170.3 large			■	■						■										■	■

For large roof areas (over 1000m<sup>2</sup>) use Terrain Syphonic Roof Drainage Systems, please see separate catalogue.

**Sizing of rainwater installations**

There is an approved BS EN method for the calculation of roof flow load, and the following general guidelines and assumptions on sizing of rainwater installations are based on this. For detailed guidance on a particular project, please refer to 'BS EN 12056-3:2000 Gravity Drainage Systems Inside Buildings – Roof Drainage, Layout and Calculations', or contact Polypipe Terrain Technical Services on 01622 795200.

**Rainfall**

In the UK, it is generally satisfactory for eaves gutters to be designed for a rainfall intensity of 75mm/hr. The predicted frequency of storms producing intensities of 75mm/hr is low, with just one 2 minute duration fall of such intensity anticipated each year.

A good factor of safety is therefore built into any design using these values. However, when designing for closed areas such as lightwells, flat roofs or similar the rainfall intensity value allowed for should be increased. Again, please refer to 'BS EN 12056-3:2000'.

**Snow**

'BS EN 12056-3:2000' sets out (Section NB4) design requirements for snow which should be taken into account. In areas where high snow loads are common, or where smooth roofing surfaces are used, gutter support brackets should be fixed at a maximum of 800mm centres.

**Wind**

There is no requirement to allow for the effect of wind when designing a rainwater system for flat roofs or roofs protected from the wind by adjacent buildings. However, the

wind and the roof slope can have the effect of increasing the roof flow load for unprotected pitched roofs. This is allowed for in the 'BS EN 12056-3:2000' calculation method by adding half the rise to the roof span.

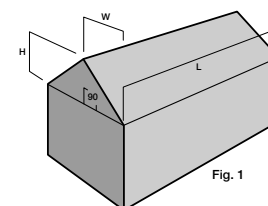


Fig. 1

**Roof Flow Load: How to calculate it**

There are two factors to consider when calculating flow. Firstly the area to be drained, or 'effective roof area'; and the intensity of rainfall.

For the intensity of rainfall you should assume 75mm/hour except for enclosed areas such as lightwells and flat roofs.

**Effective Roof Area**

Effective Roof Area can be calculated using the following formula, as illustrated in Fig 1.

$$ERA(m^2) = (W + H/2) \times L \text{ (Fig. 1)}$$

**KEY:**

- ERA** = Effective Roof Area (square metres)
- W** = horizontal distance from eaves to point directly below ridge
- H** = vertical rise between eaves and ridge (metres)
- L** = gutter length (metres)

**Calculating the actual flow**

Once you have calculated the ERA, for 75mm/hour rainfall intensity

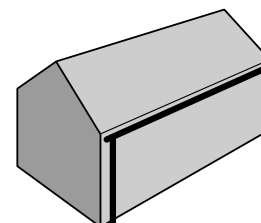
$$FLOW \text{ (litres/second)} = ERA \text{ (m}^2) \times 0.0208$$

For other rainfall intensities

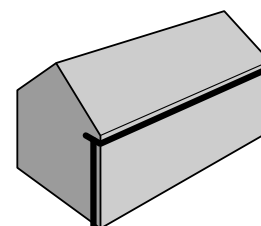
$$FLOW = ERA \text{ (m}^2) \times \text{rainfall intensity (mm/hour)} / 3600 = \text{litres/second}$$

**Flow load calculations**

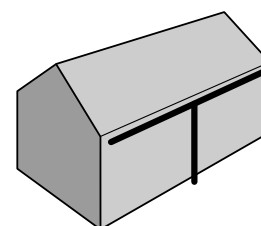
**Position A**



**Position B**



**Position C**



**Roof outlet flow load: calculation method**

For a flat roof (i.e. a roof with a pitch less than 10°), the effective roof area = the plan area of the relevant part of the roof.

To calculate flow in litres/second for 75mm/hour rainfall intensity: firstly measure plan area of roof served by each outlet (square metres) and then multiply area by 0.0208 to obtain flow (litres/second)

NOTE: See Code of Practice BS EN 12056-3:2000 for full details

**Roof outlets flow data**

The flow rates listed have been established by independent testing carried out by the Rainwater Drainage Design Company using facilities at the Hydraulics laboratory of Salford University.

Downpipe Size/Type (mm)	Level gutter		Gutter 1:350 fall	
	Area (m <sup>2</sup> )	Flow (l/s)	Area (m <sup>2</sup> )	Flow (l/s)
<b>2100 crescent</b>				
68 round	46	0.96	61	1.27
<b>2200 corniche</b>				
62 square	53	1.10	72	1.50
<b>2300 streamline</b>				
75 square				
82 and 110 round	123	2.56	147	3.06
<b>2400 rapidflow</b>				
68 and 82 round	105	2.19	133	2.77
<b>2500 omega</b>				
62 square				
68 round	96	2.00	121	2.52

<b>2100 crescent</b>				
68 round	37	0.77	49	1.02
<b>2200 corniche</b>				
62 square	42	0.87	58	1.21
<b>2300 streamline</b>				
75 square				
82 and 110 round	103	2.14	123	2.56
<b>2400 rapidflow</b>				
68 and 82 round	86	1.79	109	2.27
<b>2500 omega</b>				
62 square				
68 round	77	1.60	97	2.02

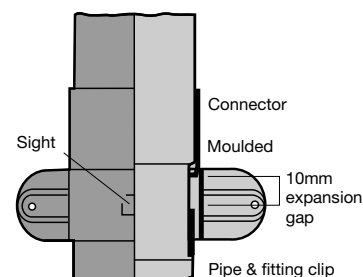
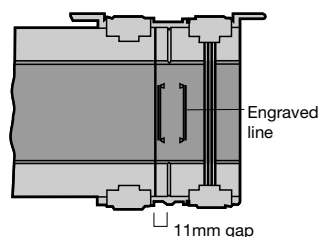
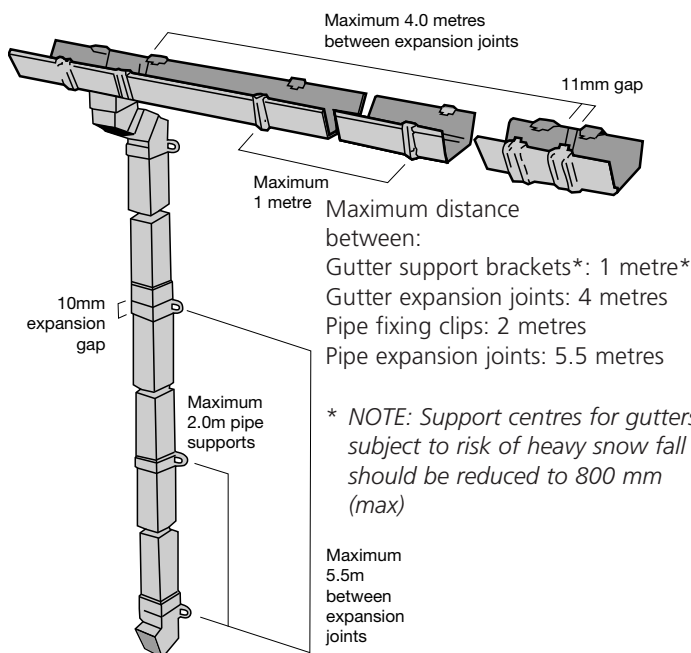
<b>2100 crescent</b>				
68 round	92	1.91	122	2.54
<b>2200 corniche</b>				
62 square	113	2.36	149	3.11
<b>2300 streamline</b>				
75 square	241	5.02	286	5.96
82 round	242	5.04	286	5.96
110 round	242	5.04	294	6.11
<b>2400 rapidflow</b>				
68 and 82 round	210	4.38	266	5.53
<b>2500 omega</b>				
62 square				
68 round	192	4.00	242	5.04

Roof outlet	Size	Flow capacity litres/sec Head of water at outlet		
		30mm	50mm	100mm
part no.				
2180.2	50	0.88	1.18	1.78
2180.3	82	2.12	2.52	3.21
2181.2	50	2.00	2.27	2.69
2181.3	82	2.10	4.89	7.22
2170.3	82	9.18	11.08	13.67
2170.4	110	9.29	14.11	18.22
2171.3	82	4.94	9.24	16.64
2171.4	110	5.17	9.95	24.18

Note: Figures based on 75mm per hour rainfall intensity

## Fixing centres and expansion joints

Applicable to all Terrain gutter systems and downpipe assemblies.

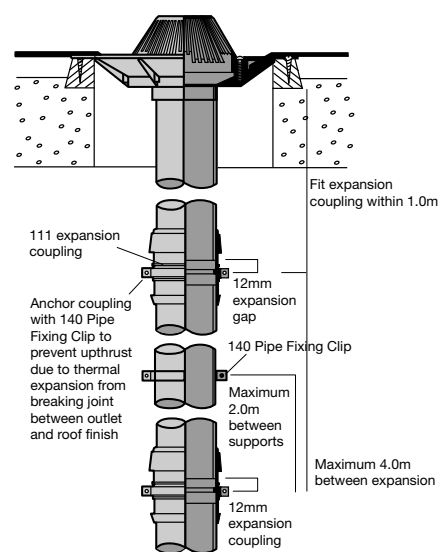


## For roof outlets

Applicable to: 82mm and 110mm circular pipework used with roof outlets

Maximum distance between:  
Vertical pipe fixing clips: 2 metres  
Pipe expansion joints<sup>†</sup>: 4 metres<sup>†</sup>

<sup>†</sup> NOTE: Anchor expansion couplings with 140 Pipe Fixing Clip to prevent thermal expansion upthrust from rupturing joint between roof outlet and finish.



## Quality Assurance

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

All systems are manufactured to the relevant European Standard and all gutters certified to British Standard.

- EN 607 Eaves Gutters and Fittings made from PVC-u.
- EN 1462 Brackets for Eaves Gutters.
- EN 12200 Plastic rainwater piping for above ground external use – PVC-u.

## Materials

Terrain leads the industry in advanced PVC-u manufacture using the latest machinery. Gutters, downpipes and fittings are all manufactured in PVC-u.

## Environment/Sustainability

Terrain is accredited to BS EN ISO 14001 Environment Management System with all processes being controlled to minimise the impact on the environment and a commitment to continuously improve environmental performance well beyond legal requirements.

## Helping you solve problems

Terrain products are backed by a comprehensive Technical Advisory Service, which is here to provide you with advice and design guidance on all aspects of above and below ground drainage. Telephone 01622 717811.

## Availability


For details of a wide range of stockists, please contact Terrain Sales Support on 01622 717811.

[www.terrain.co.uk](http://www.terrain.co.uk)

## Further information and assistance

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

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

Many products are also available in CAD form for ready incorporation into design drawings (Products marked in the listings with ). 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:

**Tel: 01622 717811**

**Fax: 01622 791049**

# Commercial Piping and Sanitary Systems



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