



## SPOUTING AND DOWNPIPE CAPACITY

Spouting systems and downpipes need to be correctly sized to ensure that they are capable of handling the runoff from the roof. Below are tables to aid in this process. When using the tables firstly check that the spouting is able to handle the runoff from the section of roofing, then check that the downpipes can do the same.

*Any gutter under consideration shall be divided into sections, and each section sized. A section shall comprise the length of gutter between a downpipe and the adjacent high point on one side only of the downpipe*

### CAPACITY OF SPOUTINGS

Spouting Profile	Cross-sectional Area of Spouting (mm <sup>2</sup> )	Maximum area of roof discharging into a section of gutter (m <sup>2</sup> )			
		ROOF PITCH			
		0 - 25°	25 - 35°	35 - 45°	45 - 55°
Mini Bevelline	2700	As the cross sectional areas of these spouting are less than 4000mm <sup>2</sup> (minimum gutter size as per NZ Building Code), maximum area of roof discharging into these gutters must not exceed 10m <sup>2</sup>			
Midi Bevelline	4000				
Ogee	5020	41	32	24	20
125mm <sup>a</sup> 1/2 Round	6150	52	41	33	26
Bevelline	6400	54	44	35	28
Quad	6830	59	48	39	30
150mm <sup>a</sup> 1/2 Round	8700	79	65	54	41
Hi-Line	9950	93	78	63	50
Maxi Bevelline	10310	98	81	66	52
200mm <sup>a</sup> 1/2 Round	12820	130	110	87	70
175mm Box Gutter	21645	250	215	175	145
280mm Box Gutter	34770	455	380	325	265

### PLEASE NOTE

1) This table only covers areas with 10 year return maximum rainfall intensities up to 100mm/hour, as per New Zealand Building Code E1 appendix A. Further calculations (as per NZBC E1) maybe required for the following areas:

South Island:

Nelson, Marlborough, Kaikoura, West Coast and Fiordland regions.

North Island:

Northland, Taranaki, Thames Valley, Coromandel, Bay of Plenty, Rotorua, Ruahine ranges and Waipukurau regions.

2) Any gutter under consideration shall be divided into sections, and each section sized. A section shall comprise the length of gutter between a downpipe and the adjacent high point on one side only of the downpipe.

## CAPACITY OF DOWNPIPES

DOWNPIPE SIZE	Maximum plan area of roof served by downpipe (m <sup>2</sup> )			
	ROOF PITCH			
	0° - 25°	25° - 35°	35° - 45°	45° - 55°
65mm Diameter	60	50	40	35
75mm Diameter	85	70	60	50
80 x 55 Rectangular	85	70	60	50
100mm Diameter	155	130	110	90
150mm Diameter	350	290	250	200

### Scope of Use

*Calder Stewart spouting systems are intended for the collection of roof surface water. They are not intended to support concentrated or distributed loads heavier than the spouting being full of water (e.g. snow build up). Product performance, life expectancy and warranty are dependent upon environment, maintenance and material selection. Ensure the correct product is chosen for the environment. Installation of Calder Stewart spouting systems must comply with the following sections of the NZ Building Code E1 Surface Water 4.1.2, 4.2.1, 4.3.1, 5.1.1, 5.1.2, 5.1.3, 5.3.1, 5.4.1.*

### NZBC Compliance

*Provided that the product use, installation and maintenance is within the above guidelines, Calder Stewart rainwater systems comply with the following clauses of the NZ Building Code B2 - Durability 1.0.1, E1 - Surface Water 4.1.1, 5.1.4, 5.2.1.*



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