COMPANY NAME AND ADDRESS:

Stratco (N.Z.) Limited, 55 Hands Road, Middleton, Christchurch, 8024— Ph (03) 338 9063—NZBN 9429040814629

Stratco (HB) Limited, 65 Niven Street, Onekawa, Napier, 4110—Ph (06) 843 6159—NZBN 9429036524792

Contour Roofing Nelson Limited, 41 Venice Place, Stoke, Nelson, 7011— Ph (03) 538 0824—NZBN 9429038730085

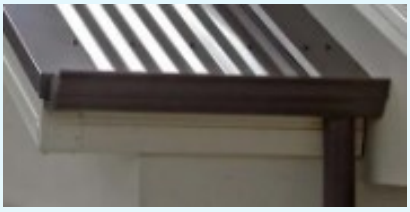
Contour Blenheim Limited, 35 Kinross Street, Blenheim, 7201— Ph (03) 577 7720—NZBN 9429031587600

ADDRESS FOR SERVICE: **Nexia Christchurch Limited, Level 4, 123 Victoria Street, Christchurch, 8013**

WEBSITE: www.stratco.co.nz

EMAIL: **technical@stratco.co.nz**

PRODUCT: **Rainwater Systems**



DESCRIPTION

Stratco Gutters are functional, stylish, and designed to form a neat finish to the edge of both domestic and commercial roofing. They are also designed to minimise the risk from serious water damage to the building, making Stratco Guttering a wise investment.

Stratco Fascia is used as a base to attach the gutters to, or as a cover to hide the fixing space between the roof, eaves and wall. More than just functional, Stratco Fascia is designed to form a neat, attractive edge between the roofing and wall surface. Stratco Fascia is also used as a barge on gable roofs.

Stratco offer a wide range of downpipes for any domestic roofing or commercial application. Choose from round or square and a range of sizes, there is a Stratco downpipe for any requirement, from minor drainage to large factory projects.

As the primary function of the rainwater system is to efficiently disperse rainwater from the roof to the stormwater drain network, it is imperative to ensure the correct sizing and number of downpipes are used in conjunction with the chosen gutter profile.

PLACE OF MANUFACTURE

New Zealand

DESIGN CONSIDERATIONS

- Roof area to be drained.
- Local average rainfall intensity (ARI) for building location.
- Capacity and fall of gutter. Gutters must be installed to a minimum fall to the downpipe of 1:500 (2mm per metre).
- Capacity and number of downpipes required.
- Where the gutter capacity is greater than the downpipe capacity then the downpipe capacity will determine the number of downpipes required. Conversely where the downpipe capacity is greater than the gutter capacity then the gutter capacity will determine the number of downpipes required.
- Gutter and downpipe systems must be designed and installed to ensure overflows are to the outside of the structure.
- The design and use of rainheads where applicable.
- Where applicable, in snow regions for building location, the addition of snow straps may be required for gutter systems.
- Collection of drinking water.
- Contact with, and run off from, dissimilar metals such as stainless steel and copper should be avoided with any coated or uncoated roofing products. Discharging water from upper to lower roof sections using copper gutter or downpipes is to be avoided.
- Set out and drop heights for wall & soffit framing to be allowed for with Stratco metal fascia—Refer www.stratco.co.nz/siteassets/pdfs/185-continuous-fascia-set-out.pdf

For further information on roof drainage and calculators refer to NZBC E1/AS1, E2/AS1 and NZMRM Roofing Code of Practice www.metalroofing.org.nz/cop

MATERIAL COMPOSITION & COATINGS

The boundaries of different corrosion zones are difficult to define because many factors determine the corrosivity of a particular location. It is important to choose the appropriate materials for the location to ensure they meet the minimum durability requirements of the NZ Building Code and satisfy customer expectations.

Zinc/alum coated steel substrate conforms with AS 1397:2013.

Pre-painted metals available provide solutions for different environments including various metals, metallic coatings, paint systems and paint thickness. The paint coatings are manufactured in accordance with AS/NZS 2728:2013.

For project specific environment zone product selection contact Stratco for further information.

BUILDING CODE COMPLIANCE

The product will, if used in accordance with Stratco's installation and maintenance requirements, assist with meeting the following provisions of the building code :

- **Clause B2 Durability:** B2.3.1 (c)

  Depending on product material and environments:
  - Paint surfaces warranty on Rainwater products up to 10 years
  - Perforation warranty— gutters up to 10 years, fascia up to 15 years

- **Clause E1 Surface Water:** E1.3.2

  See individual profile information for water carrying capacities.

- **Clause E2 External Moisture: E2.3.1**

  Standard design details can be accessed from the web: www.stratco.co.nz/nz/roofing/gutters/

  Alternative details may comply with solutions for rainwater systems found in E2/AS1, or comply with the 4 "D's" Deflection, Draining, Drying and Durability.

- **Clause G12 Water Supplies:** G12.3.2

  Colorsteel and Colorcote tested in accordance with AS/NZS 4020:2005 passed the requirements for products in contact with drinking water.

TESTING & SUPPORTING EVIDENCE

NZ Metal Roofing Manufacturers Association Inc. (NZMRM Code of Practice) www.metalroofing.org.nz/cop

NZ Steel www.colorsteel.co.nz/resources/downloads-and-brochures/

Pacific Coilcoaters www.colorcote.co.nz/technical-information/

Supporting evidence provided where requested will apply to the product supplied for the specific project.

HANDLING & STORAGE

Scuffing and scratching can damage steel with a pre-coloured finish. To minimise this, Stratco supplies gutters, downpipes and fascia with a removable plastic coating. Do not leave this coating exposed to the sunlight for long periods of time as it may become hard to remove. Remove the plastic coating as the product is being installed—do not leave it on to remove at a later stage.

Do not drag rainwater products across or over each other. Also do not drag other materials across or over rainwater products. For safety, wear gloves when handling steel products and ensure your hands or gloves are clean when handling. Steel products should be kept dry before installation. Separate and dry these products immediately if they get wet, as discolouration can occur .

INSTALLATION

Roof overhang into the gutter is to be a minimum 50mm.

Gutters must be installed to a minimum fall to the downpipe of 1:500 (2mm per metre). Good practice is to increase this to 1:200 (5mm per metre) wherever possible to improve drainage and self cleaning.

The spouting bracket system must withstand the potential weight of a gutter full of water. Brackets for gutters should be located close to all stop-ends, at both ends of sumps and rain-heads at a maximum of 750mm spacing for gutters less than 180mm wide, and at 600mm for gutters 180 – 300mm wide. In snow load areas, spouting may be fitted with snow straps and brackets at a maximum of 600mm centres to withstand the additional potential weight of any snow build-up.

Eaves flashings must be installed where roof pitch is ≤ 10° and/or soffit width is ≤ 100mm or wind zones are either Very High, Extra High or Specific Engineer Design.

The back face of gutters must also be lower than the fascia or cladding and have a gap between the fascia and gutter to allow overflow water to drain. This gap is normally provided for by the gutter bracket however if it is not then the gutter should be spaced off the fascia to ensure there is a 6mm gap. This gap must be maintained in all areas, including internal angles. External gutters to buildings without soffit must be provided with a 10 mm drainage gap or be designed as an internal gutter.

Do not use black lead pencils for marking products. Cutting must be done by shear method using tin snips, or by hacksaw. Ensure fasteners used are compatible with the materials being used.

Gutters are to be lapped in the direction of water flow with a minimum 40mm sealed joint using neutral cure sealant at both ends of the lap. Sealant should also be applied to the surface of the lap once the joint has been riveted in place. Ensure the sealant is applied to the full girth of the joint and wipe off any excess to ensure there is no obstruction to water flow.

The use of abrasive disc cutters or grinders above or adjacent to the products by roofers or other trades, is against trade practice and must be avoided, otherwise swarf staining will result.

At all times, contact with wet concrete, lime, mortar acids and treated timber must be avoided. During installation the spouting must be cleaned of all loose debris. On completion, all products must be cleaned by hosing with clean water and soft brushing to remove all debris and contaminants.

MAINTENANCE

More regular maintenance is required on the areas that are not naturally washed by rain. These areas include steel fascias and gutters.

A products life-span may be reduced from not following a regular maintenance program as condensation in these areas can combine with salt and pollution on the surface, resulting in accelerated corrosion. Maintenance must be frequent enough to prevent dust, salts, pollutants and any other material to accumulate on the product and reduce its life.

Depending on environment, gutters should be cleaned out:

- Moderate — six monthly
- Severe — three monthly
- Very severe — monthly

Cleaning should also be more often where there are high levels of leaf fall and/or dust.

Wash areas that are not naturally cleaned by rain with fresh, clean water. If washing with clean water does not completely clean the surface, a mild solution of detergent should be added to the water and applied with a soft bristled nylon brush or by water blasting at pressures of no more than 20MPa. Rinse the painted surface thoroughly with clean water. Never use abrasive or solvent based cleaners such as turps, petrol or kerosene.

SECTION 26 OF THE BUILDING ACT

Stratco Rainwater products are not subject to any warnings or bans under Section 26 of the Building Act.

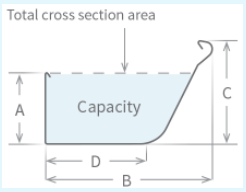
ENVIRONMENT

Stratco has Toitu Enviromark Gold Certification. Stratco sites recycle all steel scrap and offcuts which can then be remelted for use in other steel products.

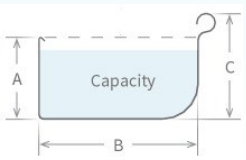
Steel is infinitely recyclable so at the end of its useful life as roofing, wall cladding or rainwater products the product can be recycled and remelted for other steel products.

RAINWATER PRODUCT RANGE - NOTE: CATCHMENT AREA TABLES SHOWN ARE A GUIDE ONLY.

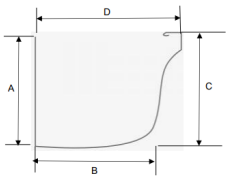
For further information on roof drainage and calculators refer to NZBC E1/AS1, E2/AS1 and NZMRM Roofing Code of Practice www.metalroofing.org.nz/cop

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
QUARTER ROUND GUTTER Manufactured Cromwell, Napier, Nelson, Rotorua		A B C D	62 144 89 82	6,100	6,770	INTERNAL BRACKETS (INCLUDING TIMBERFIX) EXTERNAL BRACKETS STOP ENDS SUSPENSION CLIPS

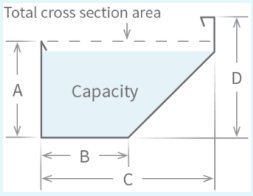
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	118	98	84	74	65	59	54	49	45	42	39	37	35	33	31	30

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION	ACCESSORIES
QUAD GUTTER Manufactured Christchurch		A B C	61 115 90	5,621	6,760	INTERNAL BRACKETS (INCLUDING TIMBERFIX) STOP ENDS SUSPENSION CLIPS

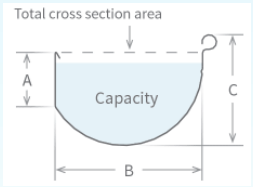
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	101	84	72	63	56	51	46	42	39	36	34	32	30	28	27	25

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
125 QUAD Manufactured Nelson		A B C D	70 85 75 130	5,600	7,000	INTERNAL BRACKETS STOP ENDS

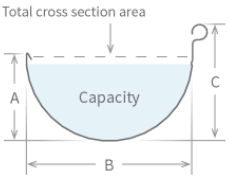
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	115	96	82	72	64	57	52	48	44	41	38	36	34	32	30	29

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
EDGE GUTTER™ Manufactured Rotorua		A B C D	74 81 159 103	7,125	8,612	INTERNAL BRACKETS EXTERNAL BRACKETS STOP ENDS

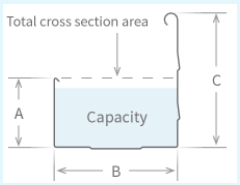
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	160	133	114	100	89	80	73	67	62	57	53	50	47	44	42	40

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
SMOOTHLINE® Manufactured Christchurch		A B C	51 138 104	8,748	10,124	INTERNAL BRACKETS (INCLUDING TIMBERFIX) STOP ENDS SUSPENSION CLIPS

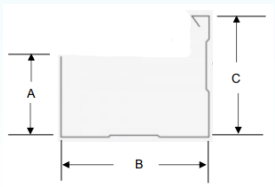
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	204	170	145	127	113	102	92	85	78	73	68	64	60	57	54	51

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
HALF ROUND GUTTER Manufactured Christchurch		A B C	78 148 104	7,703	9,176	EXTERNAL BRACKETS STOP ENDS

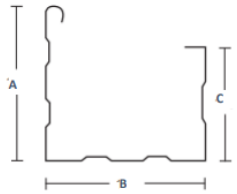
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	172	143	123	108	96	86	78	72	66	61	57	54	51	48	45	43

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION	ACCESSORIES
VC GUTTER **PLAIN OR SLOTTED FRONT OVERFLOW** Manufactured Christchurch		A B C	58 119 108	PLAIN 5,712 SLOTTED 4,412	PLAIN 6,893 SLOTTED 5,594	INTERNAL BRACKETS (INCLUDING TIMBERFIX)

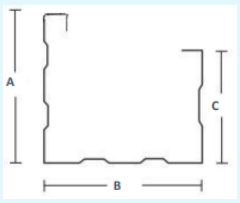
PLAIN																
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	109	91	78	68	61	54	49	45	42	39	36	34	32	30	28	27
SLOTTED																
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	73	61	52	46	41	36	33	30	28	26	24	23	21	20	19	18

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION	ACCESSORIES
120 BOX GUTTER Manufactured Nelson		A B C	60 122 100	PLAIN 5,712	PLAIN 7230	INTERNAL BRACKETS

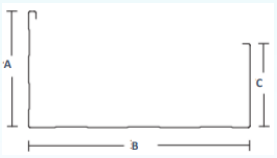
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	151	126	108	94	84	75	68	63	58	54	50	47	44	42	40	38

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
125 BOX GUTTER		A B C	125 125 75	7,500	9,375	INTERNAL BRACKETS EXTERNAL BRACKETS

RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	151	126	108	94	84	75	68	63	58	54	50	47	44	42	40	38

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
175 BOX GUTTER		A	175	19,250	21,875	EXTERNAL BRACKETS
		B	175			
		C	125			

RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	488	407	349	305	271	244	223	203	188	174	163	152	143	135	128	122

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
300 BOX GUTTER		A	165	31,500	36,000	EXTERNAL BRACKETS
		B	300			
		C	120			

RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	885	738	632	553	492	442	402	369	340	316	295	276	260	246	233	221

PRODUCT PROFILES (INDICATIVE ONLY)

RAINHEADS

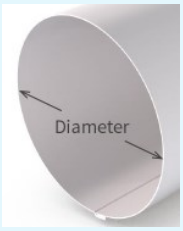
Custom Made to Order Only — Styles Shown Are Indicative Only and May Vary


Tapered

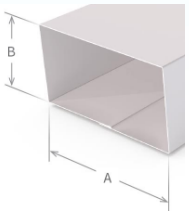

Conical


Ornate

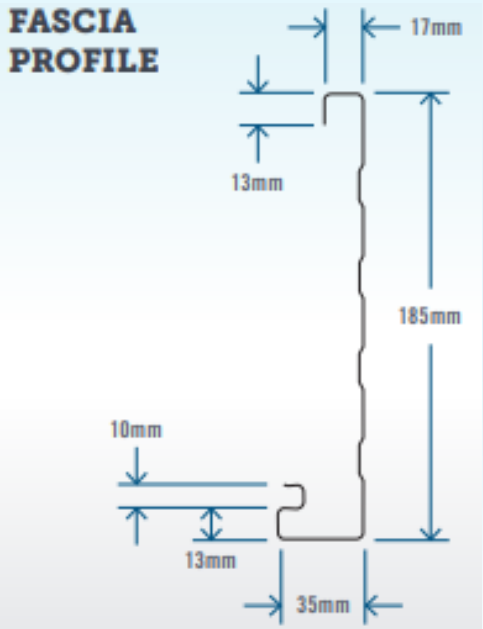
When ordering a rainhead you must specify the dimensions of the design to suit the calculated required capacity of the gutter and rainhead. You will need to know the length, width and height and positioning of overflow outlet.

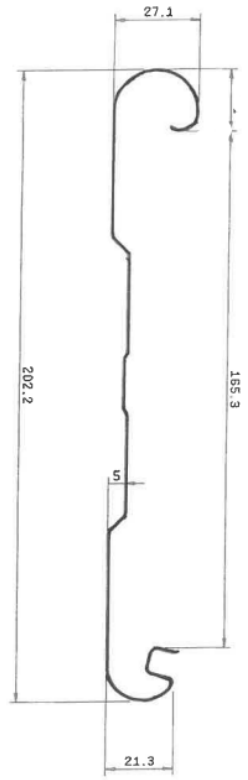
PRODUCT	PROFILE	SIZE (mm)	ACCESSORIES
ROUND DOWNPIPE 80mm Manufactured Christchurch —3.200 Stock Lengths—Longer Lengths Available Made to Order		65 80	BENDS DROPPERS CLIPS

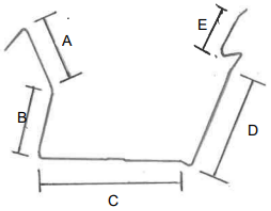
65mm																
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	164	137	117	103	91	82	75	68	63	59	55	51	48	46	43	41
80mm																
RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	249	208	178	156	138	125	113	104	96	89	83	78	73	69	66	62

PRODUCT	PROFILE	SIZE (mm)	ACCESSORIES
SQUARE DOWNPIPE Manufactured Christchurch—3.200 Stock Lengths		A 82 B 50	BENDS DROPPERS CLIPS

RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	203	169	145	127	113	102	92	82	78	73	68	63	60	56	53	51

PRODUCT	PROFILE	ACCESSORIES
CONTINUOUS FASCIA **Manufactured Christchurch, Cromwell, Napier, Rotorua, Nelson**		**RAFTER BRACKET** **EXTERNAL MITRES** **SUSPENSION CLIPS**

PRODUCT	PROFILE	ACCESSORIES
TAYLOR FASCIA **NOTE: Only available for replacements or additions to existing** **6.500 metre lengths—Titania only**		**RAFTER BRACKET** **EXTERNAL CORNERS**

PRODUCT	PROFILE	DIMENSIONS (mm)		CAPACITY (mm2)	CROSS SECTION AREA (mm2)	ACCESSORIES
TAYLOR INTERNAL GUTTER **NOTE: Manufactured Christchurch — only available for replacements or additions to existing** **7.000 metre lengths only**		A B C D E	37 37 81 58 25	4,675	5,950	

RAINFALL INTENSITY (ARI) mm/hr	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
CATCHMENT AREA PER DOWNPIPE (m2)	85	71	61	53	47	43	39	35	33	30	28	26	25	24	22	21

Appendix

As reference, this appendix contains the full descriptions of all building performance clauses listed in this document.

B2 Durability

B2.3.1

Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the *specified intended life* of the *building*, if stated, or:

(c) 5 years if:

(i) the building elements (including services, linings, renewable protective coatings, and fixtures) are easy to access and replace, and

(ii) failure of those building elements to comply with the building code would be easily detected during normal use of the building.

E1 Internal moisture

E1.3.2

Surface water, resulting from an event having a 2% probability of occurring annually, shall not enter *buildings*.

Performance E1.3.2 shall apply only to *housing*, *communal residential* and *communal non-residential buildings*.

E2 External moisture

E2.3.1

Roofs must shed precipitated moisture. In locations subject to snowfalls, roofs must also shed melted snow.

G12 Water Supplies

G12.3.2

A potable *water supply system* must be—

1. protected from contamination; and
2. installed in a manner that avoids the likelihood of contamination within the system and the water main; and
3. installed using components that will not contaminate the water.