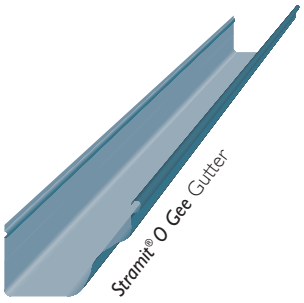
STRAMIT® RAINWATER PRODUCTS

SOUTHERN REGION

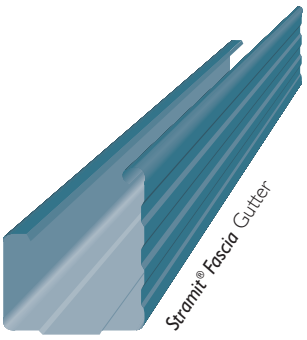
product technical manual

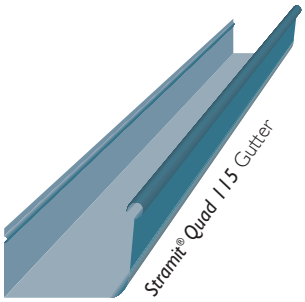
R/W – VIC/TAS

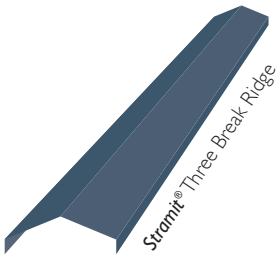
STRAMIT® RAINWATER PRODUCTS
SOUTHERN REGION


Stramit® O Gee Gutter

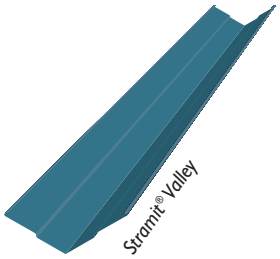

Stramit® Fascia

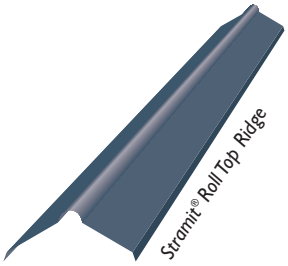

Stramit® Fascia Gutter

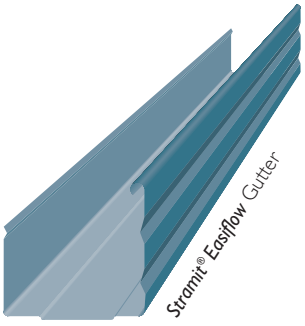

Stramit® Quad 115 Gutter

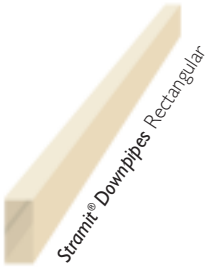

Stramit® Three Break Ridge

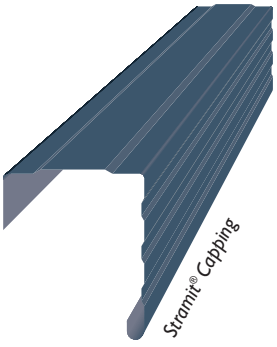

Stramit® Barge Gutter


Stramit® Valley


Stramit® Roll Top Ridge


Stramit® Easiflow Gutter


Stramit® Downpipes Rectangular


Stramit® Capping


Stramit® Downpipes Round

Selection & Specification

General Features

- Extensive range – quality rainwater products.
- Both COLORBOND® and ZINCALUME® steel finishes available.
- A comprehensive range of accessories available.
- Comprehensive design data provided.
- Hi-tensile fascias and gutters.

Applications

Stramit® rollformed rainwater products are designed for domestic and light commercial applications, with a comprehensive range of COLORBOND® steel colours to choose from. All products have a wide range of matching accessories.

Stramit® Fascia has a clean yet classic style ideal for all types of home. ***Stramit® O Gee*** Gutter has a classical style suitable for modest sized applications. ***Stramit® Quad 115*** Gutter has a traditional Victorian pattern with more drainage capacity. ***Stramit® Easiflow*** Gutter is a neat square style gutter whilst ***Stramit® Fascia*** Gutter has a larger drainage capacity ideal for large homes and commercial applications.

The extensive range of ***Stramit® Downpipes*** provides for the full range of domestic, commercial and most industrial applications. Smaller sizes are available in COLORBOND® steel colours. The full complement of ***Stramit® Rainwater Products*** is completed with valley gutter, ridge capping, edge roll, cappings and flashings.

For larger commercial and industrial applications folded ***Stramit® Custom Flashings*** are available to suit any box gutter or eave gutter design.

Availability

All of the ***Stramit® Rainwater Products*** listed in this manual are available in Victoria, Tasmania and South Australia. However, items available cut-to-length or from stock vary at each Stramit location. Please check with your nearest Stramit office or the Stramit Victoria or Tasmania Price & Service Guide for a schedule of availability.

Materials

Stramit® Rainwater Products are manufactured from G550 and G300 ZINCALUME® (AZ150) steel or galvanized (Z275) in accordance with AS1397, and COLORBOND® steel with a coating conforming to AS2728. Other coatings, grades and materials may be available, subject to enquiry. The mass and steel grade for the primary ***Stramit® Rainwater Products*** are shown below:

STRAMIT® RAINWATER PRODUCTS – MATERIALS & MASS

	steel grade	mass (kg/m) ZINCALUME®	mass (kg/m) COLORBOND®
Stramit® Fascia	G550	1.07	1.09
Stramit® O Gee Gutter	G300	1.19	1.21
Stramit® Quad 115 Gutter	G550	0.92	0.93
Stramit® Easiflow Gutter	G550	1.34	1.36
Stramit® Fascia Gutter	G550	1.33	1.36
Stramit® Capping	G300	1.53	1.55
Stramit® Roll Top Ridge	G550	1.34	1.36
Stramit® Three Break Ridge	G300	various	
Stramit® Valley	G300	1.49	1.52
Stramit® Downpipes	G300	various	
Stramit® Barge Gutter	G550	1.18	1.20

Adverse Conditions

Stramit® Rainwater Products manufactured from ZINCALUME® steel will give excellent durability in almost all locations more than 1km from a rough, active surf coastline, or more than 100m from calm still salt water. However, it is suggested that products be painted to enhance durability further.

Installations closer to the coastline are possible, but will require complete surface painting (including accessories). Contact Stramit Building Products to obtain specific painting instructions.

Applications within 500m of industrial or unusually corrosive environments will need to be individually assessed for durability. Contact your nearest Stramit office for advice.

Colours

Most ***Stramit***® products are available in the full range of COLORBOND® steel colours. In addition other colours, including gloss finish are stocked at some locations. Please check with your nearest Stramit office or distributor for availability.

Material Compatibility

Drainage from copper or lead products (including roof flashings) should not be allowed to discharge on to ZINCALUME® or COLORBOND® steel components. Similarly, lead or copper components should not be installed in contact with ZINCALUME® steel. Each of these combinations will lead to premature corrosion.

Drainage from copper, COLORBOND® and ZINCALUME® steel, translucent (or other inert material) should not be allowed to discharge onto, or into, galvanised products.

Fascia/Gutter Compatibility

Only ***Stramit***® Gutters may be used with ***Stramit***® ***Fascia***. Similarly only authentic Stramit accessories are suitable for connecting ***Stramit***® Gutters to ***Stramit***® ***Fascia***.

Testing

Stramit has in-house, purpose built testing equipment used to design, develop and improve products for the Australian market. In addition many ***Stramit***® products are tested or witnessed by independent organisations. These include:

- University of Technology, Sydney
- Cyclone Structural Testing Station (James Cook University)
- The University of Sydney
- CSIRO

The ongoing research and development activity ensure that Stramit remains at the forefront of innovation, design and consumer information.

Architectural Specification

A similar specification for each product can be found on the Stramit web site and can easily be downloaded onto your documentation.

The [product type – e.g. gutter] shall be Stramit [product name – e.g. Easiflow] or agreed exact equivalent in size and performance. Material shall be protected steel sheet to Australian Standard AS1397 with a minimum yield stress of 550MPa* and an AZ150 zinc-aluminium coating* [with a (nominate colour) oven baked paint film]. All accessories are to be fully compatible as recommended by the manufacturer. The product and its accessories shall be installed strictly in accordance with the manufacturer's recommendations. Flashings and all adjacent products shall be supplied in compatible materials as specified. All work shall be fixed in a workman like manner, leaving the job clean and weather tight. All debris (screws, rivets, cuttings and filings, etc) shall be cleaned off daily. Repair all minor blemishes with touch up paint supplied by the manufacturer.

Note – *some products supplied in 300MPa steel with galvanised Z275 coating.

Standards Conformance

All ***Stramit***® ***Rainwater Products*** have been designed and manufactured to conform with AS3500.3.2, AS3500.3.1 or AS2179.

Design

GENERAL

Performance

Stramit® Rainwater Products have been designed and/or tested to all appropriate loadings and design action effects. These include wind, atmospheric corrosion, rainwater flow, rainwater mass, foot traffic loads, dead loads and ladder loads. The performance information for each product indicates those action effects accounted for in each case.

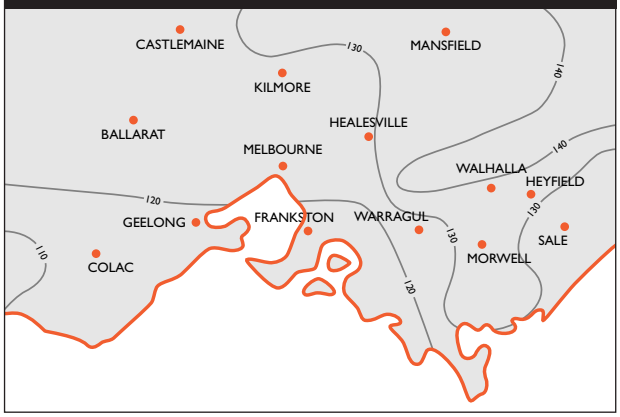
Rainfall Intensity

Values of rainfall intensity in the table and maps are for 20 year ARI, 5 minute durations and have been derived from AS3500 part 3.2 'Stormwater drainage – Acceptable solutions'. It should however be emphasised that the extent and longevity of records in Australia are limited and any such data therefore carries with it a degree of uncertainty. The 20 year ARI values should only be used for external eave gutters. For internal/box gutters use 100 year ARI values such as those in the Stramit Design Guide – 'Roof Slope'.

20 YEAR RAINFALL INTENSITIES (mm/hr)	
Victoria	
Ballarat	127
Geelong	118
Lakes Entrance	124
Melbourne	127
Mildura	125
Morwell	129
Tasmania	
Burnie	118
Hobart	99
Launceston	101
New South Wales	
Albury	135
Wagga Wagga	136
South Australia	
Adelaide	123
Mt. Gambier	108
Port Augusta	124

The map is only intended to indicate the variability of rainfall intensity within the region shown. Specific data for any location can be obtained from the Commonwealth Bureau of Meteorology in Melbourne.

CENTRAL VICTORIA – 20 YEAR RAINFALL INTENSITY ISOPLETHS



Snow

It is common practice not to use gutters in snow prone areas but to take care of roof run-off at ground level. Information on designing in snow areas can be found in Standards Australia Handbook HB 106 "Guidelines for the design of structures in snow areas".
In snow prone areas ***Stramit® Fascia*** may only be used with a tilt batten designed to take the additional roof loading.

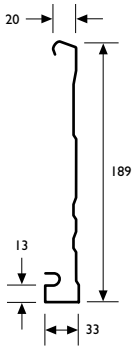
Hail

Stramit® Steel Gutters are able to resist impact from significantly sized hail without damage. However, in hail prone areas consideration should be given to ensuring that gutter fronts are well below roof level. This should avoid the damming effect of hail which, if it builds up onto the roof, can lead to overloading and failure of the gutter.

Leaves

Leaves in gutters can be a problem. They come in many shapes and sizes and roof debris may also include branches, twigs and both organic and inorganic particles. Many systems have been and are used to try to solve this problem. The optimum solution will vary with each situation and may be influenced by a number of factors that include the nature and proximity of vegetation, the level of maintenance and the primary motivation (eg water collection, maintenance reduction, gutter system durability, bushfire hazard reduction etc)
One method is to use adequately sized gutters set well below the roof edge with a good fall and large downpipes with well angled offsets to avoid corner blockages, clear frequently and remove overhanging vegetation.
An often-used method is an additional mesh guard or perforated gutter covering. Those of a very fine mesh will keep most debris from the gutters but can be prone to dirt and algal build up leading to mesh blockage. This does keep leaves from the gutter and downpipe, but ultimately it may not allow water to pass into the gutter. Any water trapped within the gutter may not dry out which could compromise durability. Larger mesh guards stop large leaves and branches from entering the gutter but it may be possible for twigs and branches to catch in the mesh ultimately creating a dam causing water to flow back into the building eaves. It is also important, if a cover or leaf guard is used, that it is material-compatible with the gutter and that both the gutter and the guard are cleared regularly.

STRAMIT® FASCIA



Spans

The spanning capability of ***Stramit® Fascia*** shown has been determined by testing (in accordance with AS4040.1) for a combination of roof tile and foot traffic loads. The maximum spacing of ***Stramit® Fascia*** rafter brackets is:

– *Where a separate tilt/roof batten is fitted adjacent to the fascia:*

internal spans 1500
end spans 1200 maximum (200 minimum)

Note that for a jack rafter to be considered as a support position it must be adequately connected to the hip rafter.

– *Where the fascia is used as the tilt batten:*

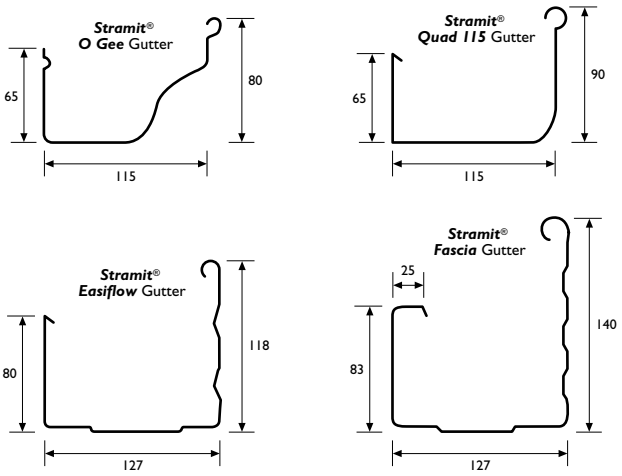
internal spans 1200
end spans 900

Pressures

The wind resistance of ***Stramit® Fascia*** has then been determined at these spans by testing in accordance with AS4040.2 – and for each of the spans is suitable for use in areas of up to: 0.92 kPa SERVICEABILITY LIMIT-STATE, 2.25 kPa STRENGTH LIMIT-STATE. These pressures are equivalent to: N3 (Region A – rural, Region B – exposed suburban).

STRAMIT® GUTTERS

STRAMIT® GUTTERS – CROSS SECTIONAL AREA (mm²)	
Stramit® O Gee Gutter	4620
Stramit® Quad 115 Gutter	6300
Stramit® Easiflow Gutter	8900
Stramit® Fascia Gutter	9300



Spans

Stramit® Gutters require the correct proprietary Stramit brackets (or snap clip/stiffener bracket combination) for support at spacing no greater than those shown in the following table.

STRAMIT® GUTTERS – MAXIMUM SUPPORT SPACINGS (mm)	
Stramit® O Gee Gutter	1000
Stramit® Quad 115 Gutter	1000
Stramit® Easiflow Gutter	1200
Stramit® Fascia Gutter	1200

Thermal Expansion

Gutter runs in excess of 20m require the provision of an expansion joint.

Fall

Stramit recommends that an absolute minimum fall of 1 in 500 be used for all gutters, this being a design requirement for the gutter and downpipe selection table [on the facing page]. Good fall reduces the risk of leaf and debris deposition that could otherwise effect durability.

Gutter Capacity

In theory any size of gutter can be used to drain any roof catchment. What controls design is the number of downpipes needed to perform within the capacity of each gutter. In practice the larger the gutter the less the number of downpipes required, as indicated in the table [opposite].

Normally catchment calculations must take into account the increased area due to roof slope. The required downpipe table incorporated into this manual takes account of roof slopes up to 23°. Therefore the roof area for use with this table requires only the simple calculation of plan area.

Gutter Style				Max area per downpipe (m²)	STRAMIT® GUTTERS & DOWNPIPES – NUMBER OF DOWNPIPES REQUIRED FOR TYPICAL ROOF INSTALLATION										
Stramit® O Gee	*Stramit® Quad 115*	*Stramit® Easiflow*	*Stramit® Fascia* Gutter		roof plan area (m²) – for roofs up to 23°										
Location Rainfall Intensity					100	120	140	160	180	200	220	240	260	280	300
			90	120	1	2	2	2	2	2	2	3	3	3	3
		90		114	1	2	2	2	2	2	3	3	3	3	3
			100	108	2	2	2	2	2	3	3	3	3	3	4
		100		102	2	2	2	2	2	3	3	3	3	3	4
		110	120	91	2	2	2	2	3	3	3	3	4	4	4
		120	130	84	2	2	2	3	3	3	3	4	4	4	4
		130	140	78	2	2	2	3	3	3	4	4	4	4	5
	90	140	150	72	2	2	3	3	3	4	4	4	4	5	5
		150	160	68	2	2	3	3	3	4	4	4	5	5	5
	100	160	170	65	2	2	3	3	3	4	4	4	5	5	5
				63	2	3	3	3	4	4	4	5	5	6	6
	110	170	180	60	2	3	3	3	4	4	4	5	5	6	6
		180	190	58	2	3	3	4	4	4	5	5	6	6	6
	120	190	200	55	2	3	3	4	4	4	5	5	6	6	6
				53	3	3	3	4	4	5	5	6	6	6	7
	130	200		51	3	3	3	4	4	5	5	6	6	6	7
90				49	3	3	4	4	4	5	5	6	6	7	7
	140			47	3	3	4	4	5	5	6	6	6	7	7
100				45	3	3	4	4	5	5	6	6	7	7	8
	150			44	3	3	4	4	5	5	6	6	7	7	8
				42	3	4	4	5	5	6	6	7	7	8	8
110	160			41	3	4	4	5	5	6	6	7	7	8	8
				40	3	4	4	5	5	6	6	7	8	8	9
	170			39	3	4	4	5	6	6	7	7	8	8	9
120				38	3	4	4	5	6	6	7	7	8	8	9
	180			37	3	4	5	5	6	6	7	8	8	9	9
				36	4	4	5	5	6	7	7	8	8	9	10
130	190			35	4	4	5	5	6	7	7	8	9	9	10
				34	4	4	5	6	6	7	8	8	9	9	10
	200			33	4	4	5	6	6	7	8	8	9	10	10
140				32	4	5	5	6	7	7	8	9	9	10	11
				31	4	5	5	6	7	7	8	9	9	10	11
150				30	4	5	6	6	7	8	8	9	10	11	11
				30	4	5	6	6	7	8	8	9	10	11	11
				29	4	5	6	6	7	8	9	9	10	11	12
				29	4	5	6	6	7	8	9	9	10	11	12
160				28	4	5	6	7	7	8	9	10	11	11	12
170				27	5	5	6	7	8	9	9	10	11	12	13
				26	5	6	6	7	8	9	10	11	12	12	13
180				25	5	6	6	7	8	9	10	11	12	12	13
190				24	5	6	7	8	9	9	10	11	12	13	14
200				23	5	6	7	8	9	10	11	12	13	14	15

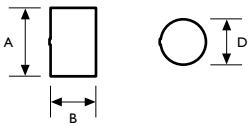
Intensities for Melbourne

The selection of the number of downpipes is carried out in accordance with AS3500.3.2 (Stormwater drainage – acceptable solutions.)

However, the larger the gutter the larger the downpipe required. The minimum size of downpipe associated with each ***Stramit®*** Gutter is given in the ***Stramit® Downpipes*** section that follows.

STRAMIT® DOWNPIPES

Stramit offer a wide range of round and rectangular downpipes, each of which is tapered to permit easy assembly.



The dimensions and cross-sectional area of all ***Stramit®*** ***Downpipes*** available in Victoria, Tasmania and South Australia are shown in the table below.

STRAMIT® DOWNPIPES – SIZES & AREAS

rectangular			round	
width - A (mm)	depth - B (mm)	area (mm^2)	diameter - D (mm)	area (mm^2)
100	50	5000	50	1960
100	75	7500	65	3320
100	100	10000	75	4420
150	100	15000	100	7850
			125	12270
			150	17670

Sizing of minimum downpipe size relates only to the cross-sectional area of the chosen gutter. The table below gives the minimum round and rectangular downpipe size for each ***Stramit®*** Gutter.

STRAMIT® DOWNPIPES – MINIMUM SIZES (mm)

Gutter	round* (diameter)	rectangular*
Stramit® O Gee Gutter	75	100 x 50
Stramit® Quad 115 Gutter	100	100 x 50
Stramit® Easiflow Gutter	125	100 x 75
Stramit® Fascia Gutter	125	100 x 75

** Smaller downpipes may be used only if the gutter capacity is downgraded.*

OTHER STRAMIT® RAINWATER & FLASHING PRODUCTS

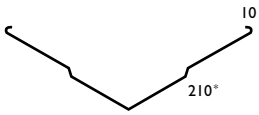
Stramit® Custom Flashings

Stramit® Custom Flashings are available in an almost infinite variety of shapes and sizes. Preferred girth widths are 150, 250, 300 and 400mm and lengths of up to 8m are possible. The details of all ***Stramit® Custom Flashings*** must be provided in hard copy (e.g. fax). Contact the nearest Stramit branch for more details or refer to the Stramit Price & Service Guide for the area.

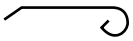
Stramit® Standard Flashings

All of the following products require nominally continuous support.

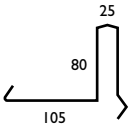
Stramit® Roll Top Ridge



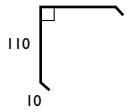
Stramit® Valley
**190 and unribbed in Tasmania*



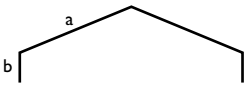
Stramit® Barge Roll



Stramit® Barge Gutter



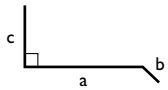
Stramit® Barge Angle/Corner Mould



Stramit® Three Break Ridge

STRAMIT® THREE BREAK RIDGE

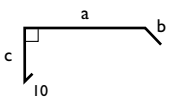
	a	b
Ⓢ	185	40
Ⓜ	170	30
Ⓣ	150	50



Stramit® Under Flashing

STRAMIT® UNDER FLASHING

	a	b	c
Ⓒ	130	10	60
Ⓢ	180	40	80
Ⓜ	145	30	65
Ⓣ	170	50	80



Stramit® Barge

STRAMIT® BARGE

	a	b	c
Ⓒ	130	10	50
Ⓢ	180	40	70
Ⓜ	145	30	55
Ⓣ	170	50	70

Ⓒ suits ***Stramit® Corrugated*** sheeting
Ⓢ suits ***Stramit Speed Deck Ultra®*** and ***Speed Deck® 500*** decking
Ⓜ suits ***Stramit Monoclad®***, ***Longspan®***, ***Megaclad®*** sheeting
Ⓣ suits ***Stramit Snaptite™*** 406 decking

Procurement

Accessories

Use only the correct, authentic ***Stramit***® Accessories with ***Stramit***® ***Rainwater Products***.

The following accessories are available for each product:

Stramit® ***Fascia***

- 45°/90° External Corners
- 45°/90° Internal Corner Caps
- Rafter Bracket
- Barge Bracket
- LH/RH Barge Corner
- Apex Cover Plate
- Splice Plate

Stramit® ***Quad/O Gee*** Gutters

- Concealed Bracket
- Gutter Stiffener (for use with Snap Clip)
- External Bracket (Quad only)
- LH/RH Stop End Plates
- Internal Pre-made Angles
- External Pre-made Angles
- 45°/90° Internal/External Cast Angles (Quad only)

Stramit® Squareline Gutters

- Concealed Bracket
- Gutter Stiffener (***Stramit***® ***Easiflow*** Gutter only – for use with Snap Clip)
- Stop End Plates
- Over Stiffener Brackets (***Stramit***® ***Fascia*** Gutter only – for various roofing profiles)

Stramit® ***Downpipes***

- Astragals/Stops
- Nozzles/Pops/Drops

Note that in most cases the components shown are different for each particular gutter style or downpipe size.

Associated products

- Roofing – wide range of profiles available.
- Roof & ceiling battens – range of top hats available.
- Flue & sewer accessories.
- Silicone – for all sealing requirements.
- Flashings & cappings – range of standard and custom flashings available.
- Rainwater heads – to suit most downpipe sizes.
- Edge roll – for neat edge finishing.

Prices

Prices of products can be obtained from your nearest Stramit location or distributor of ***Stramit***® ***Rainwater Products***. As Stramit does not provide an installation service, ask your tradesperson for a supply and fix price. Contact your nearest Stramit location for the names of tradespeople in your area.

Handling/Storage

Stramit® ***Rainwater Products*** should be handled with care at all times to preserve the product capabilities and quality of the finish. Packs should always be kept dry and stored above ground level while on site. If the products become wet, they should be separated, wiped and placed in the open to promote drying.

Ordering

Stramit® ***Rainwater Products*** can be ordered directly through distributors, or supplied and fixed from an installer.

Lengths

Most rainwater products are available as stock lengths. ***Stramit***® ***Fascia***, gutters and valleys are available cut-to-length from some branches.

Delivery/Unloading

Delivery can normally be made within 48 hours, subject to the delivery location and material availability, or can be at a pre-arranged date and time. Please ensure that suitable arrangements have been made for truck unloading, as this is the responsibility of the receiver. When lifting fascia gutter and flashings, care should be taken to ensure that the load is spread to prevent damage. The protective strippable coating on COLORBOND® steel product should not be exposed to sunlight for more than about one week or this may become difficult to remove.

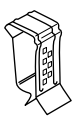
Installation

Fasteners

All fastening screws must conform to AS3566 – Class 3. For connecting brackets use:

For fixing ***Stramit***® ***Fascia*** rafter brackets to steel trusses (up to 2.5mm)
– No. 10 x 16mm hex-head self drilling & threading screws.

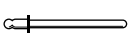
– to timber trusses – No. 10 x 25mm hex-head type 17 self-drilling screws.



For fixing gutters to ***Stramit***® ***Fascia***
– ***Stramit***® Snap Clip (also requires a stiffener bracket).

For fixing Gutter Brackets to timber fascia
– No. 10 x 25mm wafer head self-drilling type 17 screws, or

– 40mm galvanised fluted nails.



For lap joints and accessories
– 3.2mm diameter aluminium pop rivets.

Cutting

Stramit® Rainwater Products can be easily cut, where required, using a fine-toothed hacksaw and tin snips. Please dispose of any off-cuts carefully.

Sealing

Use only neutral-cure silicone for sealing joints when using ***Stramit® Rainwater Products***. Take care to avoid pockets in joints which may hold moisture and potentially reduce durability.

Good Practice

Stramit recommends that good trade practice be followed when using the products such as that found in *Standard Australia Handbook* – HB39. "Installation code for metal roofing and wall cladding".

Painting

Stramit® Rainwater Products are available in COLORBOND® steel colours. However should painting of ZINCALUME® steel products be required, use the following procedure.

A 'weathering' period of two weeks following installation will make painting easier. Clean the gutter/fascia immediately prior to painting. Dirt can be washed off using water with mild detergent. Any grease marks should be wiped away with paint thinners. In benign locations good quality acrylic paint will give satisfactory performance. First use a low-gloss water-borne acrylic primer. Finish with water-borne acrylic gloss (or your choice of gloss level).

WARNING – Never use paint thinners or other solvents on COLORBOND® steel surfaces.

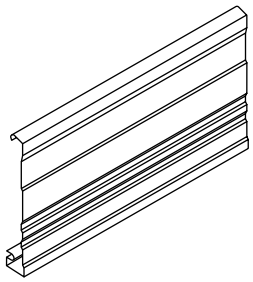
Strippable Coating

Some ***Stramit® Rainwater Products*** are supplied with a protective strippable coating. This should be removed at the last possible stage during the installation process. It is possible to selectively move the coating to one side to avoid fastenings and joints. Then finally remove the coating from the installed product.

WARNING – Do not leave products with strippable coating exposed to direct sunlight for more than about a week or it can become difficult to remove.

Installation Steps

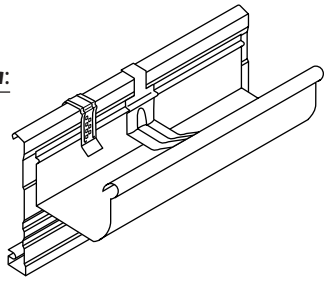
Stramit® Fascia



1. Cut ***Stramit® Fascia*** to suit a straight run.
2. Position and level rafter brackets near each end of the run (ensuring correct eave overhang and soffit height) and fix to the rafters.
3. Slide ***Stramit® Fascia*** over one end and slide along to the other end (or lift over brackets).
4. Insert remaining rafter brackets at required spacings and fix to rafters.
5. Repeat for each straight run, and then attach accessories.

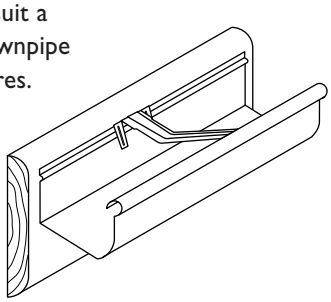
Stramit® Gutters

For fixing to Stramit® Fascia:



1. Cut ***Stramit®*** Gutter to suit a straight run, including downpipe outlet holes and end mitres.
2. If using pre-prepared or cast corners these are generally installed first ensuring the correct height to allow for fall.
3. Push snap clips over fascia at no greater than maximum support spacing for the particular product.
4. Push the back of the gutter under the snap clips to the lowest snap position.
5. Adjust the high point of the run to the desired position then apply the required fall (minimum 1 in 500) to the remainder of the gutter.
6. Attach a gutter stiffener bracket adjacent (within 50mm) to each snap clip.
7. Repeat for each straight run, and then attach accessories.

For fixing to timber fascia using concealed brackets:

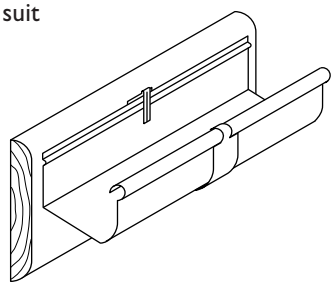


1. Cut ***Stramit®*** Gutter to suit a straight run, including downpipe outlet holes and end mitres.
2. If using pre-prepared or cast corners these are generally installed first ensuring the correct height to allow for fall.
3. Position and bracket at high end of the run and fix to the fascia.

4. Position and fix bracket at the other end of the run using a string line to set the required fall (minimum 1 in 500).
5. Position and fix intermediate brackets at no greater than maximum support spacing for the particular product.
6. Hook gutter to front of brackets, swing into position and fold down bracket tabs to secure, then for each fascia type.
7. Repeat for each straight run, and then attach accessories.

For fixing to timber fascia using external brackets:

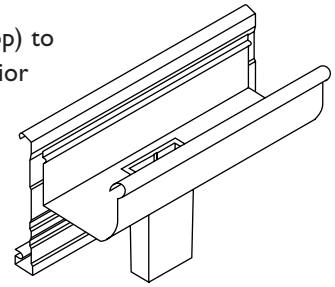
1. Cut ***Stramit***® Gutter to suit a straight run, including downpipe outlet holes and end mitres.
2. If using pre-prepared or cast corners these are generally installed first ensuring the correct height to allow for fall.



3. Position external bracket at the high end of the run and fix to the fascia.
4. Position and fix bracket at the low end of the run using a string line to set the required fall (minimum 1 in 500).
5. Using the string line as a guide position and fix intermediate brackets at no greater than maximum support spacing for the particular gutter.
6. Place the gutter onto the brackets and secure in position by folding down the front (and back for some products) tabs.
7. Repeat for each straight run, and then attach accessories.

Stramit® Downpipes

1. Attach nozzle (pop/drop) to gutter (usually done prior to installing gutter).
2. Fit or construct the offset, preferably at an angle of at least 15° to ensure good drainage.



3. Adjust downpipe height to suit using taper or, if necessary, by cutting.
4. Secure downpipes to the wall using at least one astragal (downpipe strap) per downpipe length.
5. Attach downpipe shoe.

Additional Information

Maintenance

Exterior surfaces of metal products unwashed by rain can benefit from occasional washing. These area include portions of fascia and the underside of accompanying gutters.

Further Information

As well as the standard range of Technical Manuals, Installation Leaflets, Case Studies and other promotional literature, Stramit has a series of Guides to aid design.

These include:

- Roof Slope Guide
- Concealed Fixed Decking
- Foot Traffic Guide
- Roof and Wall Sheeting
- Lightweight Structural Sections
- Truss Components
- Gutters and Downpipes
- Custom Flashings
- Insulation Products

Other Products

Stramit offers a wide range of building products including:

- Purlins and Girts
- Formwork Decking
- Roof and Wall Sheeting
- Lightweight Structural Sections
- Truss Components
- Gutters and Downpipes
- Custom Flashings
- Insulating Products

Registered Designs

Stramit*® *Fascia, fascia bracket, all gutter stiffener brackets and ***Stramit***® Barge Gutter are protected in Australia by registered designs.

References

In preparing this document reference has been made to:

- Standards Australia Handbook – HB39 (Installation code for metal roof and wall cladding)
- BlueScope Steel – Technical Bulletin TB-4 (Maintenance of Colorbond® prepainted steel roofing)
- BlueScope Steel – Technical Bulletin TB-1 (Steel roofing and walling products – selection guide)

Stramit®

Building Products

The Stramit web page can be found at:
www.stramit.com.au
Details of many ***Stramit***® products can also be seen on the AIA site 'Product Selector' at:
www.selector.com.au

contact numbers for information		**prices**	**availability** products coating colours	**general** other	**technical** advice product data
MELBOURNE 2/1464 Ferntree Gully Road, Knoxfield VIC 3180	**phone** **fax**	**(03) 9237 6300** (03) 9237 6399		**(03) 9237 6200** (03) 9237 6299	
ALBURY 18 Ariel Drive , Albury NSW 2640	**phone** **fax**	**(02) 6041 7600** (02) 6041 7666			
BENDIGO Ramsay Court, Kangaroo Flat VIC 3555	**phone** **fax**	**(03) 5447 8455** (03) 5447 9677			
HOBART 57 Crooked Billett Drive, Brighton TAS 7030	**phone** **fax**	**(03) 6263 5536** (03) 6263 6950			**(03) 6263 5536** (03) 6263 6950
LAUNCESTON 289 Hobart Road, Kings Meadows TAS 7249	**phone** **fax**	**(03) 6343 7390** (03) 6343 7381			
ADELAIDE 11 Stock Road, Cavan SA 5094	**phone** **fax**	**(08) 8262 4444** (08) 8262 6333			**(08) 8262 4444** (08) 8262 6333
SYDNEY 33-83 Quarry Road, Erskine Park NSW 2759	**phone** **fax**	**(02) 9834 0909** (02) 9834 0988		**(02) 9834 0900** (02) 9834 0988	
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NEWCASTLE 17 Nelson Road, Cardiff NSW 2285	**phone** **fax**	**(02) 4954 5033** (02) 4954 5856			
ORANGE 51 Leewood Drive, Orange NSW 2800	**phone** **fax**	**(02) 6361 0444** (02) 6361 9814			
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TOWNSVILLE 402-408 Bayswater Road, Garbutt QLD 4814	**phone** **fax**	**(07) 4779 0844** (07) 4775 7155			
CAIRNS Vickers Street, Edmonton QLD 4869	**phone** **fax**	**(07) 4045 3069** (07) 4045 4762			
MACKAY Brickworks Court, Glenella QLD 4740	**phone** **fax**	**(07) 4942 3488** (07) 4942 2343			**(07) 3803 9999** (07) 3803 1499
MARYBOROUGH 10 Activity St, Maryborough QLD 4650	**phone** **fax**	**(07) 4121 2433** (07) 4123 3139			
ROCKHAMPTON 41 Johnson St, Parkhurst QLD 4702	**phone** **fax**	**(07) 4936 2577** (07) 4936 4603			
SUNSHINE COAST Unit 1, 5 Kerryl St, Kunda Park QLD 4556	**phone** **fax**	**(07) 5456 4083** (07) 5456 4862			
MURWILLUMBAH 6 Kay Street, Murwillumbah NSW 2484	**phone** **fax**	**(02) 6672 8542** (02) 6672 6798			
DARWIN 55 Albatross Street, Winnellie NT 0820	**phone** **fax**	**(08) 8947 0780** (08) 8947 1577			
PERTH 605-615 Bickley Road, Maddington WA 6109	**phone** **fax**	**(08) 9493 8800** (08) 9493 8899			
BUNBURY 25 Proffit Street, Bunbury WA 6230	**phone** **fax**	**(08) 9721 8046** (08) 9721 8017			

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