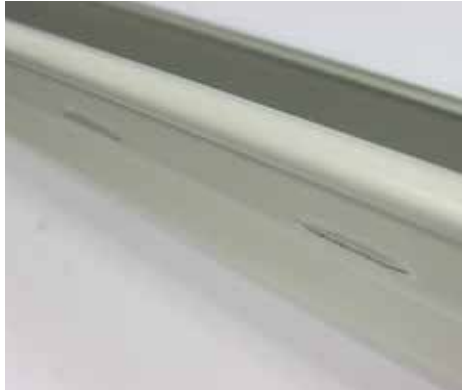




Stramit® Gutter Spacer Installed



Slotted Stramit® Gutter



Stramit® Gutter Spacer



Stramit BAT® clip with 10mm gap
between gutter and fascia

STRAMIT® GUTTER OVERFLOW OPTIONS

Solutions for Gutter Overflow
Compatible with Stramit® Fascia and Gutters

All states except Victoria and Tasmania

p r o d u c t t e c h n i c a l s u p p l e m e n t

Stramit® Gutter Overflow Options

Gutter Overflow Design

The National Construction Code 2016 Part 2 stipulates that gutter systems when installed on residential buildings should be capable of removing a given volume of water overflow. Numerous means of achieving this objective are given in the NCC Volume 2 Part 3.5.2.

The tables and charts below give information on the various overflow options that are available for use with the **Stramit® Fascia and Gutter Systems**, including slots on the front face of the gutter, the use of the **Stramit® Gutter Spacer**, or the use of the **Stramit BAT® clip**. Testing has shown that provision of a spacer between gutter and fascia is an effective means of increasing the overflow capacity.

Choice of Overflow Options

If more than one overflow option is chosen, the total overflow would be the addition of the volumes based on each individual measure.

(a) Continuous Overflow Measures

The information in this section is based on testing carried out by the Australian Steel Institute and the University of New South Wales. Follow the steps given below to find a suitable overflow option.

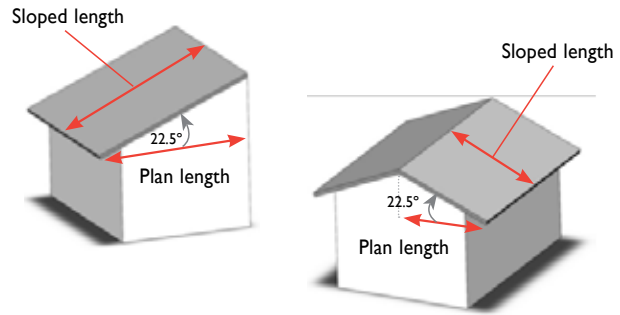
Step 1: From the tables below, based on the location of the building, determine the design rainfall intensity for overflow.

RAINFALL INTENSITIES FOR OVERFLOW DESIGN

Location	Rainfall intensity (mm/hr)	Location	Rainfall intensity (mm/hr)	Location	Rainfall intensity (mm/hr)
ACT		SA		QLD	
Canberra	193	Adelaide	184	Bamaga	298
Gunahlin	179	Gawler	158	Brisbane	305
Tuggeranong	210	Mt Gambier	144	Ipswich	278
NSW		Murray Bridge	178	Victoria Point	320
Albury	180	Port Augusta	199	Bundaberg	340
Broken Hill	219	Port Pirie	181	Cairns	278
Goulburn	156	Yorke town	166	Cloncurry	278
Kiama	319	WA		Innisfail	301
Newcastle	316	Albany	178	Mackay	316
Orange	186	Broome	287	Mt Isa	260
Sydney	262	Bunbury	199	Noosa Heads	331
Avalon	278	Derby	256	Rockhampton	300
Campbelltown	222	Geraldton	193	Toowoomba	268
Penrith	244	Kalgoorlie	204	Townsville	300
Windsor	233	Perth	172	Weipa	283
Tweed Heads	330	Joondalup	180	NT	
Wollongong	308	Midland	163	Alice Springs	239
		Port Headland	230	Darwin	274
		Tom Price	182	Katherine	250

Note: For Victoria and Tasmania, refer to separate brochure on the Stramit website.

Step 2: Find the sloped length of roof that feeds into the gutter. A quick guide for finding the sloped length for a 22.5 degree slope is to multiply the plan length of roof by a value of 1.21. Where there is a penetration in the roof, or water from a top roof flowing on to a bottom roof, the value needs to take this additional length into account. If the catchment area is known instead, divide this value by the gutter length to find the roof length applicable.



Step 3: On the coloured chart, find the rainfall intensity row and move across to the roof length column. The colour of the box will give you the information on what overflow methods are available for this roof.

CHART SHOWING OVERFLOW SOLUTIONS FOR VARIOUS RAINFALL INTENSITIES																									
Rainfall intensity (mm/hr)	Length of roof feeding into gutter(m)																								
	4	4.5	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10	10.5	11	11.5	12	12.5	13	13.5	14	14.5	15	15.5	16
125	0.14	0.16	0.17	0.19	0.21	0.23	0.24	0.26	0.28	0.30	0.31	0.33	0.35	0.36	0.38	0.40	0.42	0.43	0.45	0.47	0.49	0.50	0.52	0.54	0.56
150	0.17	0.19	0.21	0.23	0.25	0.27	0.29	0.31	0.33	0.35	0.38	0.40	0.42	0.44	0.46	0.48	0.50	0.52	0.54	0.56	0.58	0.60	0.63	0.65	0.67
175	0.19	0.22	0.24	0.27	0.29	0.32	0.34	0.36	0.39	0.41	0.44	0.46	0.49	0.51	0.53	0.56	0.58	0.61	0.63	0.66	0.68	0.70	0.73	0.75	0.78
200	0.22	0.25	0.28	0.31	0.33	0.36	0.39	0.42	0.44	0.47	0.50	0.53	0.56	0.58	0.61	0.64	0.67	0.69	0.72	0.75	0.78	0.81	0.83	0.86	0.89
225	0.25	0.28	0.31	0.34	0.38	0.41	0.44	0.47	0.50	0.53	0.56	0.59	0.63	0.66	0.69	0.72	0.75	0.78	0.81	0.84	0.88	0.91	0.94	0.97	1.00
250	0.28	0.31	0.35	0.38	0.42	0.45	0.49	0.52	0.56	0.59	0.63	0.66	0.69	0.73	0.76	0.80	0.83	0.87	0.90	0.94	0.97	1.01	1.04	1.08	1.11
275	0.31	0.34	0.38	0.42	0.46	0.50	0.53	0.57	0.61	0.65	0.69	0.73	0.76	0.80	0.84	0.88	0.92	0.95	0.99	1.03	1.07	1.11	1.15	1.18	1.22
300	0.33	0.38	0.42	0.46	0.50	0.54	0.58	0.63	0.67	0.71	0.75	0.79	0.83	0.88	0.92	0.96	1.00	1.04	1.08	1.13	1.17	1.21	1.25	1.29	1.33
325	0.36	0.41	0.45	0.50	0.54	0.59	0.63	0.68	0.72	0.77	0.81	0.86	0.90	0.95	0.99	1.04	1.08	1.13	1.17	1.22	1.26	1.31	1.35	1.40	1.44
350	0.39	0.44	0.49	0.53	0.58	0.63	0.68	0.73	0.78	0.83	0.88	0.92	0.97	1.02	1.07	1.12	1.17	1.22	1.26	1.31	1.36	1.41	1.46	1.51	1.56

- Slot area 720mm²/m - Overflow volume 0.3L/s/m
- Slot area 1200mm²/m or Hole area 625mm²/m* - Overflow volume 0.5L/s/m
- **Stramit® Gutter Spacer** - Overflow volume 1.2L/s/m*
- **Stramit BAT® clip** - Overflow volume 1.5L/s/m

* Based on test results

For gutters with a ribbed rather than hook back only, the data in the table for overflow where the **Stramit® Gutter Spacer** is used is valid for the installation of the gutters on the third notch of the snap clip or below. If overflow provisions are required where the gutter is on the top two notches and the **Stramit® Gutter Spacer** is used, please contact your local Stramit office for advice.

Table above applicable to the following gutters:		
Location	Gutter	Slot area (mm ² /m)
NSW	Hi-Front Quad	720, 1200
SA	Quad 115	720, 1200
QLD	Queenslander Quad	Hole area 625*
ACT	Hi-Front Quad	720, 1200

Low fronted gutters where overflow does not need to be provided for: Quad 100, Quad 125, Quad 150, Quad 175.

For other gutters, and for information on availability of different slot areas, please contact your local Stramit office for advice.

An example for a rainfall intensity of 200mm/hr and a roof length of 6.5m is given below, the solution for this case is the use of 1200mm²/m slots or the **Stramit® Gutter Spacer**.

■ Slot area 1200mm²/m or Hole Area 625mm²/m* or **Stramit® Gutter Spacer**.*

Rainfall intensity (mm/hr)	Length of roof feeding into gutter(m)					
	4	4.5	5	5.5	6	6.5
125	0.14	0.16	0.17	0.19	0.21	0.23
150	0.17	0.19	0.21	0.23	0.25	0.27
175	0.19	0.22	0.24	0.27	0.29	0.32
200	0.22	0.25	0.28	0.31	0.33	0.36

Step 4: The **Stramit® Gutter Spacer** solution, where required, can be used for installations using the **Stramit® Fascia, Snap Clip** and **Gutter Stiffener Brackets**. Where increased slot area is part of the solution, please check with your nearest **Stramit®** Location for availability. The **Stramit BAT® clip** has the largest overflow capacity and is suitable for areas with heavy rainfall and long roof lengths.

Installation of Continuous Overflow Measures

Gutter and fascia installation methods are unchanged where the slotted gutters are used as the only overflow method. For installations with a **Stramit® Gutter Spacer** or **BAT® clip**, refer to the installation sheet placed in the box. If sarking is installed on the roof, ensure it does not cover the gap behind the gutter. If required, the **Stramit® Gutter Spacer** can be used to retrofit installations that have been completed. The Spacer can be installed from underneath preferably at the snap clip location, if not at any location. The clips should not be more than 1000mm apart. If placed under the snap clip, the installation ensures an even gap behind the gutter while if it is placed elsewhere, the gap can be variable.

Where the **Stramit® Gutter** is mounted to a timber fascia and Stramit Concealed or External Brackets are used, a spacer block made of compatible material can be inserted between the **Stramit® Bracket** and timber fascia during installation of the bracket to create the gap, if the bracket does not already create a sufficient gap.

Low fronted **Stramit®** gutters including **Stramit®** Quad 100, Quad 125, Quad 150 and Quad 175 available in Queensland do not need any additional overflow methods as the front of the gutter is lower than the back allowing overflow from the front.

(b) Dedicated Overflow Measures

In some circumstances where the volume of overflow to be catered for is small, dedicated overflow measures may be adequate. Examples of these measures are:

1. Inverted Downpipe Nozzle
2. End Stop with cut down weir
3. Front face weir
4. Rainhead

For more information on these options, please refer to the **Stramit® Rainwater Technical Manual** for your location, or the National Construction Code 2016 - Volume Two, Section 3.5.2.5.

IMPORTANT NOTE

The information contained within this brochure is for general use and information only. Before application in a particular situation, Stramit recommends that you obtain appropriate independent qualified expert advice confirming the suitability of product(s) and information in question for the application proposed. While Stramit accepts its legal obligations, be aware however that to the extent permitted by law, Stramit disclaims all liability (including liability for negligence) for all loss and damage resulting from the use of the information provided in this brochure.

Find Stramit online here:

www.stramit.com.au

Details of many Stramit® products can also be seen on the AIA site 'Product Selector' at:

www.selector.com.au

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or the name of your local distributor**



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