

APEX OVERFLOW SOLUTIONS

APEX STEEL PTY LTD

REVISION 2

DOMESTIC ROOF DRAINAGE SYSTEMS

Apex has a range of eaves gutters and related accessories which are suitable for use in residential properties. Apex has prepared this document to assist it's customers in designing residential roof drainage systems.

OVERFLOW OPTIONS

There are 2 options available when designing overflow systems:

1. Continuous system – a continuous system is one which operates over the entire length of the gutter (e.g. slotted gutter and/or controlled back gap using spacers).
2. Dedicated system – a dedicated system is one which collect and removes the overflow in a given location (e.g. a rainhead)

A roof drainage designer can meet the overflow volumes stated in NCC2016 by using either or a combination of the 2 options.

RESPONSIBILITIES

It is the responsibility of the designers installers and owners of residential properties to ensure that the roof drainage system complies with the NCC2016 requirements. Regular maintenance of the gutters and downpipes is imperative to ensure long and trouble-free performance.

CONTINUOUS OVERFLOW MEASURES USING BACK GAP SPACERS

Continuous overflow measures using back gap spacers are described in the table below.

NCC2016

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NEW OVERFLOW REQUIREMENTS IN THE NATIONAL CONSTRUCTION CODE – 2016 (NCC2016)

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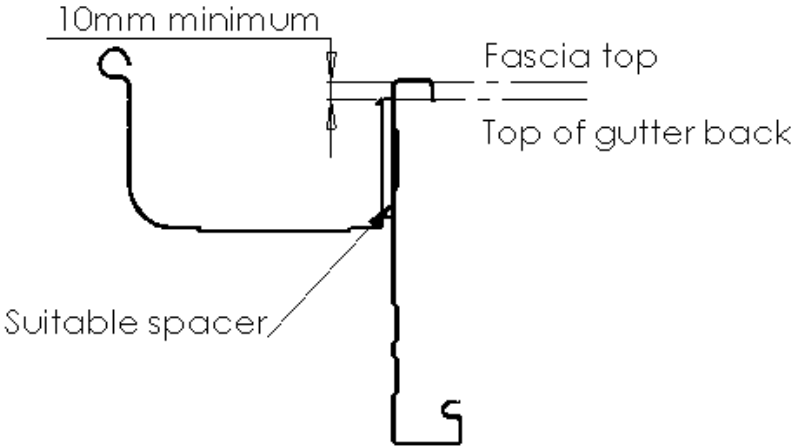
The NCC2016 Volume 2 contains new overflow requirements for domestic eaves gutters. Performance requirement in the NCC can be met by designing and installing gutters and downpipes for a Class 1 (e.g. domestic residence) or Class 10 (e.g. open carport) in accordance with acceptable construction practice described in section 3.5.2 of the NCC2016, or by designing in accordance with AS/NZS 3500.3 or AS/NZS 3500.5, or a Performance Solution as described in the NCC.

APEX STEEL is one of the contributing project sponsors which assisted ASI Ltd to carry out research on gutter overflow. Results and conclusions derived from the research has been used in preparing this aid for our customers.



For further information on span tables, water carrying capacity, steel data sheets and lead times please refer to our website www.apexsteel.com.au or contact you're closest Apex Sales Office.

TABLE 1 – CONTINUOUS OVERFLOW SOLUTIONS

DESCRIPTION	OVERFLOW CAPACITY (L/s/m)		ILLUSTRATION										
<p>CONTROLLED BACK GAP A suitable spacer (available from Apex) is clipped on to the back of the gutter at a maximum of 600mm centres.</p> <p>The back of the gutter should be a minimum of 10mm below the top of the fascia.</p>	<table border="1"> <thead> <tr> <th>Average bottom back gap (mm)</th> <th>Overflow volume (L/s/m)</th> </tr> </thead> <tbody> <tr> <td>1.5</td> <td>1.20</td> </tr> <tr> <td>3.0</td> <td>1.40</td> </tr> <tr> <td>4.5</td> <td>1.50</td> </tr> <tr> <td>6.0</td> <td>1.55</td> </tr> </tbody> </table>	Average bottom back gap (mm)	Overflow volume (L/s/m)	1.5	1.20	3.0	1.40	4.5	1.50	6.0	1.55		
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