

# RAINHEADS & SUMPS

## ISSUE #2

Welcome to my series of technical highlights written specifically to assist you, the building designer, keep informed with some of the latest design issues. I hope you find them helpful. Please look for further notes at my website [www.rachaelzeuner.com.au](http://www.rachaelzeuner.com.au).

Rachael

The design and installation of appropriate overflow devices such as rainheads and internal sumps is an integral part of any roof drainage system implementing the use of box gutters. Failing to meet the requirements outlined in AS/NZS 3500.3:2015 Plumbing and Drainage can lead to serious building and contents damage caused by water surges during rainfall events that could have been prevented by providing sufficient overflow points.

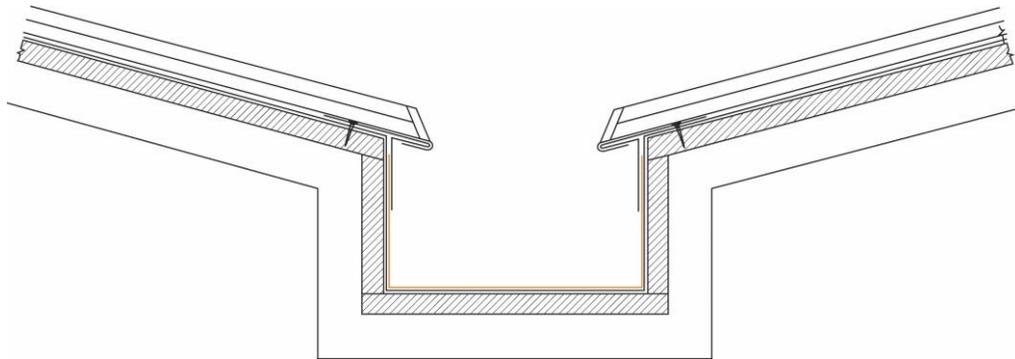


Figure 1 Box Gutter

One instance when an internal sump with either a side or vertical overflow should be used instead of a rainhead is when the option of draining to the outside of a

building is not available. However, if the option is available, the outside positioning of a rainhead has the benefit of reducing the risk of water overflowing inside a building.



Figure 2 Rainhead

Another example of when internal sumps may be required is when the number of outlets needs to be increased for sufficient drainage. Although, if an increase is not necessary and both options are available, then using rainheads may be the simpler option because the overflow does not require an increase in depth of flow in the box gutter.

An excellent website aimed at educating architects and building designers determine the drainage requirements for their project has been provided by building and construction hydraulic specialist Ken Sutherland called [www.roof-gutter-design.com.au](http://www.roof-gutter-design.com.au).

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