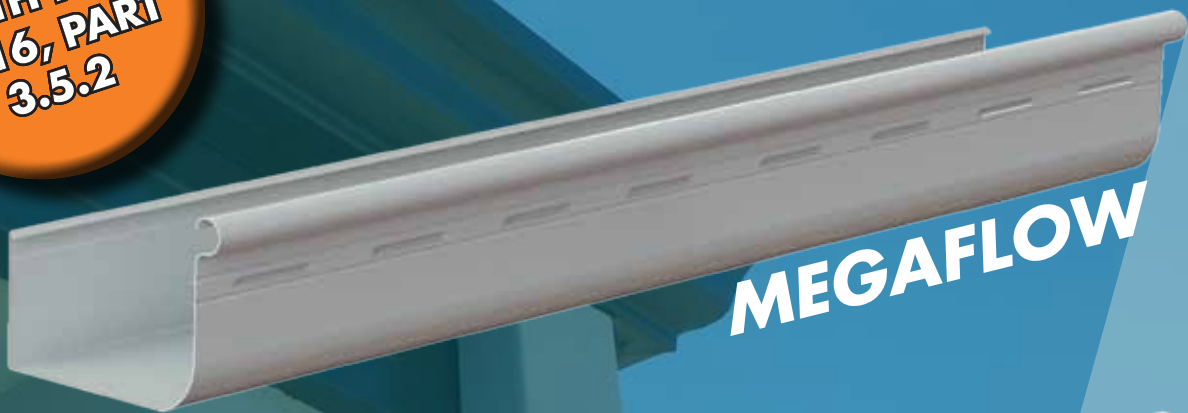


QUAD 115 HI-FRONT GUTTER

SOLUTIONS FOR GUTTER OVERFLOW COMPLIANCE

COMPLIES
WITH NCC
2016, PART
3.5.2



MEGAFLOW



STANDARD

A Met-TECH™ GUIDE

JUNE 2019



Metroll®

BETTER SERVICE • BETTER BUILDING SOLUTIONS

METROLL QUAD 115 HI-FRONT GUTTER

THE QUAD 115 HI-FRONT GUTTER OFFERS 3 OPTIONS TO ACHIEVE OVERFLOW COMPLIANCE

The NCC 2016 Building Code of Australia details appropriate performance requirements for overflow measures of eave and valley gutters. This has recently been updated and incorporates requirements for rainfall intensities of 1 in 20 years and 1 in a 100 years intervals for locations Australia wide. It is important that the drainage system diverts water away from the building.

The Metroll Quad 115 Hi-Front Gutter provides 3 options that each achieve compliance with the new requirements. These are outlined below:

OPTION 1: METROLL QUAD 115 HI-FRONT MEGAFLOW GUTTER & METROLL SPRING CLIP

The Metroll Quad 115 Hi-Front Gutter is available with MEGAFLOW overflow slots to manage water overflow.

Installing the Quad 115 Hi-Front MEGAFLOW slotted gutter with the Metroll Spring Clip will provide sufficient overflow capacity in most domestic residences in metro and regional Victoria. Testing has shown that slots alone provide a sufficient overflow solution in most applications.



DESIGN FEATURES & BENEFITS

- No gap required between the gutter and Metroll fascia.
- The **Metroll Spring Clip** has a unique maximum height tab that maintains the required minimum 10mm distance between the back edge of the gutter and the top of the fascia.

IMAGE A

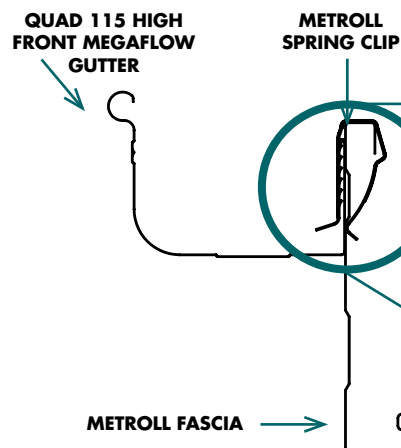
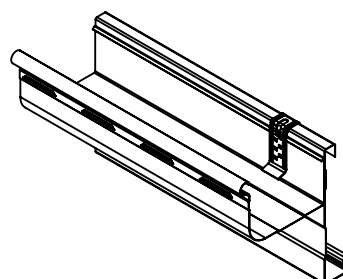
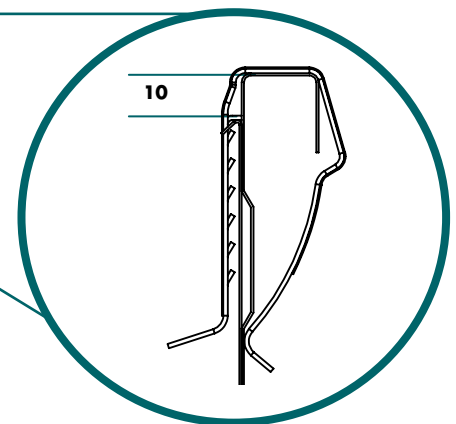


IMAGE B
CLOSE-UP SHOWING GUTTER
SET AT MAXIMUM HEIGHT



OPTION 1:
ACHIEVE COMPLIANCE USING MEGAFLOW SLOTS,
METROLL SPRING CLIPS & METROLL FASCIA

What is Met-TECH™?

Met-TECH™ is Metroll's Technical Resource Centre. It is the one stop shop for all of Metroll's product and technical information. Perfect for builders, contractors and specifiers to source all the information they may require. You can find other Met-TECH™ items on our website

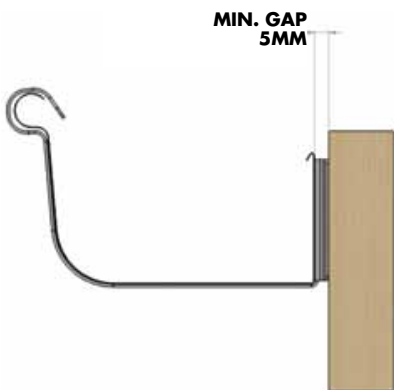
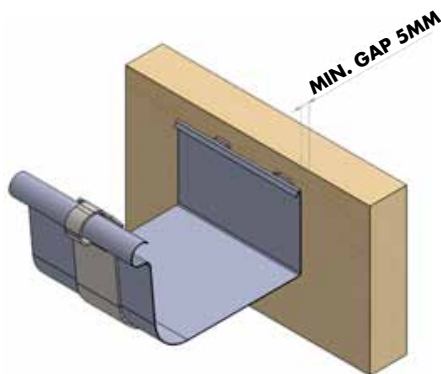
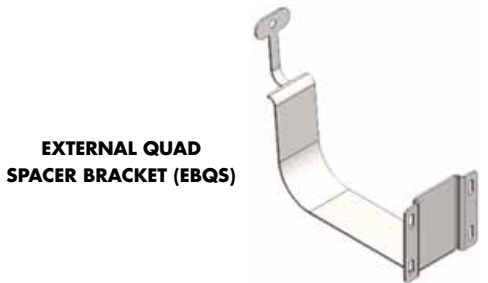
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The Metroll Quad 115 Hi-Front Standard Gutter also achieves gutter overflow compliance. This standard version is **unslotted**. It offers the remaining two compliance options when installed as outlined below:



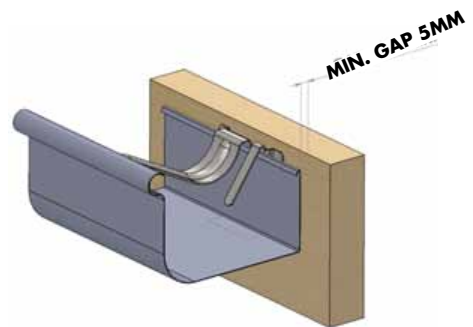
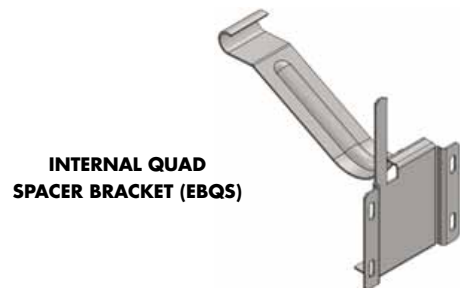
OPTION 2: METROLL QUAD 115 HI-FRONT STANDARD GUTTER & EXTERNAL QUAD SPACER BRACKET

The External Quad Spacer Bracket (EBQS) is designed to mount Metroll Quad 115 Hi-Front Gutter lengths to fascia and provide a 5mm back gap between the gutter and fascia, thus achieving overflow compliance. The back of the gutter must be mounted at 10mm minimum below the top of the fascia.



OPTION 3: METROLL QUAD 115 HI-FRONT STANDARD GUTTER & INTERNAL QUAD SPACER BRACKET

The Internal Quad Spacer Bracket (IBQS) is designed to mount Metroll Quad 115 Hi-Front Gutter lengths to fascia and provide a 5mm back gap between the gutter and fascia, thus achieving overflow compliance. The back of the gutter must be mounted at 10mm minimum below the top of the fascia.



OPTION 2: ACHIEVE COMPLIANCE USING STANDARD 115 HI-FRONT QUAD GUTTER (NON-SLOTTED) & EXTERNAL SPACER BRACKETS.

OPTION 3: ACHIEVE COMPLIANCE USING STANDARD 115 HI-FRONT QUAD GUTTER (NON-SLOTTED) & INTERNAL SPACER BRACKETS.

SUPPORT INFORMATION TO ASSIST DESIGNERS

- Unslotted gutter with 5mm back gap has an overflow capacity of 1.1 L/s/m.
- Maximum Roof Sheet Length Ridge to Gutter is 16m.

TESTING & OVERFLOW CAPACITY - VICTORIA METRO & REGIONAL

Based on engineering test data the Metroll Quad 115 Hi-Front MEGAFLOW Slotted Gutter will provide overflow capacity of 0.50 L/s/m for every metre length of gutter when the gutter is installed to the maximum height tab (refer Image B) and when installed at a minimum slope of 1:500.

The maximum overflow of a gutter is deemed to be the flow rate at which the gutter maintains continuous overflow through the intended design passage such as front slots and/or back gaps.

The Metroll Quad 115 Hi-Front MEGAFLOW gutter has been tested for maximum overflow capacity and complies with the overflow requirements of the NCC 2016 Building of Australia, in the State of Victoria where a rainfall event reaches 218mm/h max.

The gutter must be installed correctly in accordance with AS/NZS 3500.3-2015 and in line with the below installation limitations:

METROLL GUTTER OVERFLOW CAPACITIES (L/s/m)

	UNSLOTTED GUTTER WITH 5MM BACK GAP	115 QUAD SLOTTED MEGAFLOW GUTTER
Min. Cross Sectional Area (mm ²)	5200	5200
Overflow Capacity (L/s/m)	1.10	0.50
Roof Sheet Length - Ridge to Gutter (m)	Max. 16m	Max. 8m

Refer to full test report 304-16-2-BRIEF-1 or Research report - Australian Steel Institute Ltd 31st May 2016 for further compliance details if required. Available from Metroll Australia Pty Ltd.

Report References:

304-16-2-BRIEF-1
AS/NZS 3500.3 Series
NCC 2016 Volume 3 - Plumbing Code of Australia
Research Report - Australian Steel Institute Ltd 31st May 2016

DOMESTIC GUTTER OVERFLOW & DRAINAGE DESIGN CONSIDERATIONS

When designing and installing a roof drainage system, it is important that appropriate consideration is given to ensure the water does not flow back into the building. It is a regulatory requirement that all gutter overflow design solutions comply with the current Building Code of Australia NCC 2016 Volume 3.

The performance solutions in this document are set out to meet requirements of Australian Standards AS/NZS 3500.3 and NCC 2016 Volume 3. Refer to data and tables in NCC 2016 Volume 3 - DP01.2 for Rainfall Intensities and Overflow Volume.

EXEMPTIONS

Overflow measures are not required for an eave gutter that is fixed to:

- a verandah; or
- an eave that is greater than 450mm in width, which
 - has no lining; or
 - is a raked eave (with a lining that falls away from the building).

PRODUCT DESCRIPTIONS & DISCLAIMERS

All descriptions, specifications, illustrations, drawings, data, dimensions and weights detailed within this document are approximations only and are intended to be a general guide for information and identification purposes.

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