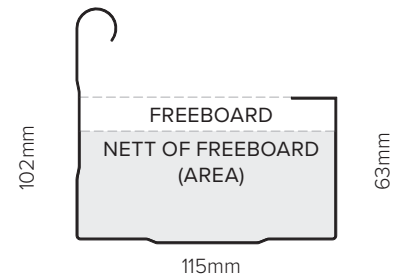


SQUARELINE GUTTER

MATERIAL OPTIONS	MANUFACTURING LOCATIONS
ZINCALUME® 0.55BMT G300	CHRISTCHURCH
COLORSTEEL® MAXAM™ 0.55BMT G300	CHRISTCHURCH

The above brands of material options are sourced from New Zealand Steel.

TOTAL CROSS SECTIONAL AREA	7245mm ²
NETT OF FREEBOARD	5520mm ²
WETTED PERIMETER	211mm



NOTES:

Total cross sectional area of gutter only to be used when installed with an overflow.

OVERFLOW WITH SOFFIT

Back of external gutter needs to be positioned 10mm below top of fascia height and have a gap of at least 3mm.

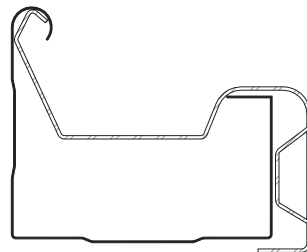
OVERFLOW WITH NO SOFFIT OVERHANG

Back of external gutter needs to be positioned 10mm below top of fascia height and have a gap of at least 10mm.

When no overflow Nett of Freeboard (Area) must be used.

BRACKET OPTIONS

As part of the Squareline Gutter system we provide the following bracket options.



INTERNAL BRACKET

1.5mm x 45mm Aluminium.
Powder coated.

11mm OVERFLOW

- ALL DIMENSIONS ARE NOMINAL AND MAY VARY WITH MATERIAL
- *THE OVERFLOW SHOULD HAVE ADEQUATE CAPACITY. THE OVERFLOW OF THE GUTTER NEEDS TO BE CONSIDERED WHEN DESIGNING AND INSTALLING THE METALCRAFT ROOFING GUTTER*

PRODUCT APPLICATION

Metalcraft Roofing's gutters, downpipes and fascia's. The correct application of each grade of material is critical to product performance and life expectancy. Before commencing a project the user must refer to the COLORSTEEL® Residential Warranty, Environmental Categories & Product Maintenance Guide and Metalcraft Roofing's product information.

Further information including installation, warranty and maintenance are available from Metalcraft branches and freely viewable and downloadable at:
www.metalcraftgroup.co.nz.

For more information on COLORSTEEL® products, visit: www.colorsteel.co.nz or www.nzsteel.co.nz.

It is important that the requirements of these guides are taken into account when making the selection of the material to be used.

Installation of is as per the NZMRM Code of Practice.
www.metalroofing.org.nz

MAINTENANCE

Regular washing of pre-painted and metallic-coated products increases their durability by reducing attacks from airborne salts and pollutants.

Washing may be carried out with a hose and a soft bristle brush, using fresh water or a 10% solution of household detergent and water followed by a thorough rinse with clean water. Alternatively, low-pressure water blasting can be used at pressures up to 20 MPa, with the jet directed away from openings and sheet laps.

For more information on maintenance requirements please refer to NZMRM Code of Practice, www.metalroofing.org.nz

WARRANTIES

Material warranties are closely linked to environmental categories. The correct grade of material for use in various environments is given in the COLORSTEEL® Residential Warranty, Environmental Categories & Product Maintenance Guide.

This can be downloaded from www.metalcraftroofing.co.nz

GUTTER LENGTHS

All gutters are subject to expansion. Maximum gutter-length is determined by the type of metal and its colour. Where gutters have an allowance for expansion (such as an external gutter on a typical gutter bracket or an internal gutter with sliding clips), lengths should be restricted to 25 m in steel and 12 m for copper or aluminium.

An expansion joint can be either a sump, rainwater head or a saddle flashing. Gutters that are directly through-fastened to the fascia or eaves purlin will not be free to move and should be restricted to a maximum of 12 m. Through-fastened gutters are not recommended as they are difficult to replace.

Refer to NZMRM Code of Practice on www.metalroofing.org.nz or Metalcraft Roofing website: www.metalcraftgroup.co.nz

CALCULATING GUTTER CAPACITY

Refer to NZMRM Code of Practice gutter capacity calculation to work out catchment area.

HANDLING AND STORAGE

Don't handle any products roughly or carelessly; gutters, downpipes and fascias perform best when handled correctly.

Don't drag or slide roofing sheets or building products over the gutter and fascias.

Refer to Metalcraft's Rainwater Installation Guide for more information or the NZMRM www.metalroofing.org.nz. Some important considerations are as follows:

- Site Storage which ensures that products are kept dry. Reducing risk of surface damage to surface coatings during handling, installation and by other trades.
- Ensuring that correct and sufficient fasteners are used.
- Installation in contact with incompatible materials is avoided.

Download the Rainwater Installation Guide from www.metalcraftroofing.co.nz.

DOWNPIPE PLACEMENT

Placement of downpipes significantly affects gutter and downpipe calculations. Refer to NZMRM Code of Practice for more information www.metalroofing.org.nz.

GUTTER FALL

Its important that all gutters are installed with a consistent fall towards the nearest downpipe, this provides for good drainage.

All gutters must have a minimum fall of 1:500 (2 mm in 1 m), the NZMRM Code of Practice recommends 1:200 (5 mm in 1 m), as it will improve drainage and self-cleaning.

GUTTER SUPPORT SYSTEMS

The spouting bracket system must withstand the potential weight of a gutter full of water. In snow load areas, spouting may be fitted with snow straps and brackets at a maximum of 600 mm centres to withstand the additional potential weight of any snow build-up.

Brackets should be made using compatible material or non-ferrous metal. Brackets for pre-painted external gutters should be painted or powder coated before installation.

Brackets for external gutters should be located close to all stop-ends, at both ends of sumps and rain-heads at a maximum of 750 mm spacing for gutters less than 180 mm wide, and at 600 mm for gutters 180 – 300 mm wide. Brackets must be installed to provide a 1:500 (2 mm per metre) minimum gutter gradient towards the outlets.

SCOPE & LIMITATIONS OF USE

Please refer to product technical statement available to download from www.metalcraftgroup.co.nz

DISCLAIMER

As part of Metalcraft Roofing's policy of continued improvement, final specifications may vary from those contained in this publication. The company reserves the right at any time and without notice to change the design, materials or features and withdraw products from the market without incurring any liability whatsoever.

This publication is issued as a general guide only and should not be treated as a substitute for technical advice. Contact with your nearest Metalcraft branch is recommended to confirm current specifications and availability.