

# Quad Gutters

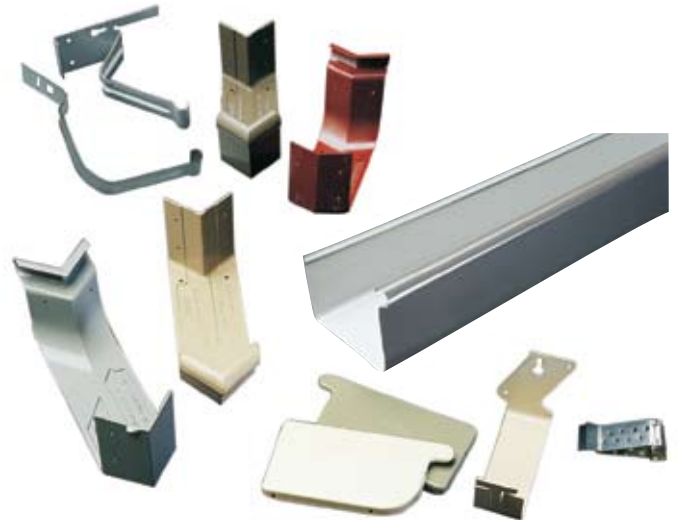
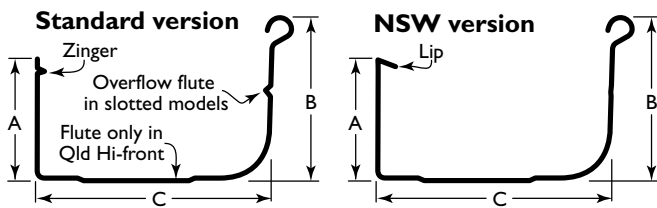
Our most popular gutter goes with every home!



- Complements contemporary or traditional-style homes
- Range of styles, colours, sizes and accessories for the perfect finish.
- Made from ZINCALUME® or COLORBOND® steel to last 4 times longer than galvanised steel.
- Warranty from BlueScope Lysaght

**LYSAGHT**

# Lysaght Quad 115 gutters (Hi-front & Lo-front)



Quad Lo-front accessories range (NSW only).

The LYSAGHT® range of Quad (or 'D') gutters offers you great choices when it comes to draining your rainwater. This traditional design looks just as good on new homes or providing a 'perfect match' to existing gutters. It's certainly our most popular replacement gutter.

Choices vary from state to state, with a range of widths that's appropriate for the water carrying capacity in your area.

All Quad gutters are manufactured from long lengths of high-tensile ZINCALUME® or COLORBOND® steel, which means they are strong and made to last up to four times longer than galvanised gutters.

Quad gutters are available in a wide range of COLORBOND® steel colours to match or contrast with your roof.

Some profile dimensions may vary slightly from state to state (see Table 2 inside).

Quad gutters are one of the most popular gutter profiles available. A complete range of accessories is available to fully complement the Quad range and deliver the perfect finish.

## Insist on BlueScope Lysaght.

When you specify LYSAGHT products you have the added advantage of dealing with a company whose expertise and experience with steel stretches back for well over a century. A company with a reputation for consistently producing top quality products.

Quad 115 is a traditional gutter, and is compatible with the NOVALINE® fascia system. Quad 115 Hi-front gutter better obscures the end of low-to-medium height roofing profiles from view.

A wide range of COLORBOND® steel colours are available to match or contrast your home's colours. No messy painting is required.

In some states, this profile is available slotted to allow overflow where alternative overflow devices are not installed.

In Victoria, Quad 115 Hi-front is also known simply as Quad gutter.

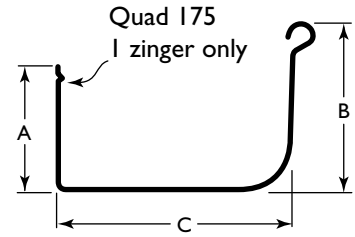
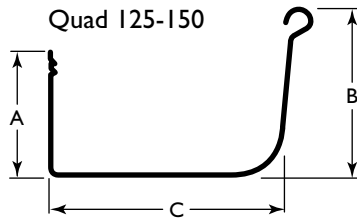
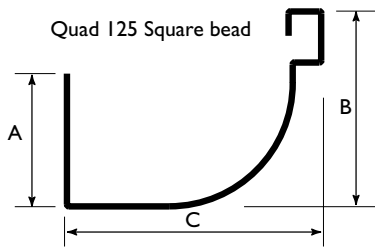
In South Australia, Quad is known as D gutter.

The Queensland Quad 115 Hi-front gutter is fluted and slotted.

In NSW only, Quad is available in both Hi-front and Lo-front.



# Lysaght Quad 125, 150 & 175 gutters



Quad 125 is normally supplied to match old installations, and is compatible with NOVALINE® Fascia.

The larger sizes of Quad available in Queensland and WA offer increased water carrying capacity (Refer Table 1).

All Quad gutters are backed by BlueScope Lysaght's 150 years of experience and our standard rainwater product warranty applies if the gutter is maintained according to our recommendations.

**Table 1: Drainage areas**

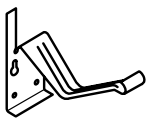
Cross Section mm <sup>2</sup> (nominal)	State	Effective Areas
Quad 115 Hi-Front	NSW, Qld, SA, Vic, Tas (Called D gutter in SA)	A <sub>e</sub> = 5809
Quad 115 Lo-Front	NSW only	A <sub>e</sub> = 6165
Quad 125	WA only	A <sub>e</sub> = 7889
Quad 125 (Square bead)	WA only	A <sub>e</sub> = 5330
Quad 150 Lo front	Qld only	A <sub>e</sub> = 8631
Quad 175	Qld only	A <sub>e</sub> = 14672

**Table 2: Product specifications**

Gutter Style	Availability	Dimensions			Lengths	Comments
		A	B	C		
<b>Quad 115 Hi-front</b> (Called 'D gutter' in SA)	Qld, NSW, Vic., SA, Tas.	62	90	115	Custom Cut to 8000	Fluted & slotted in Qld Available slotted in SA
<b>Quad 115 Lo-front</b>	NSW	65	70	115	Custom Cut to 8000	
<b>Quad 125 (Round bead)</b>	WA	70	80	125	2400	Galvabond only
<b>Quad 125 (Square Bead)</b>	WA	65	95	125	Custom Cut to 8000	
<b>Quad 150</b>	WA	70	80	150	2400	
<b>Quad 150 Lo-front</b>	Qld	75	74	150	Custom Cut to 8000	
<b>Quad 175</b>	Qld	103	96	175	Custom Cut to 8000	

All dimensions are nominal, and may vary slightly from state to state.

## Lysaght Quad accessories



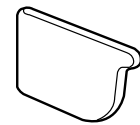
**Internal GP bracket**  
Used with all Quad gutters  
ZINCALUME



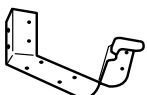
**External T-head bracket**  
Used with all Quad gutters  
ZINCALUME & COLORBOND  
150 only is available in Qld.



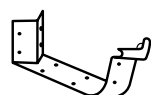
**Overstrap for use with NOVALINE fascia** (Used with all Quad gutters except 175)  
ZINCALUME



**Stop end plate: LH or RH**  
Used with all Quad gutters  
ZINCALUME & COLORBOND



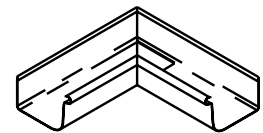
**Internal corner: Diecast 90° & 45°**  
Used with Quad 115  
COLORBOND



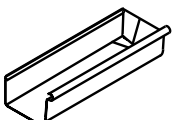
**External corner: Diecast 90° & 45°**  
Used with Quad 115  
COLORBOND



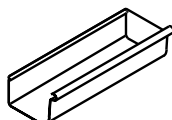
**External corner: Manufactured steel**  
Used with all Quad gutters  
ZINCALUME & COLORBOND  
NOT AVAILABLE IN NSW or for 115 in Qld



**Internal corner: Manufactured steel**  
Used with all Quad gutters  
ZINCALUME & COLORBOND  
NOT AVAILABLE IN NSW or for 115 in Qld



**Return stop end: LH or RH**  
Used with Hi-front  
ZINCALUME & COLORBOND  
NOT AVAILABLE IN NSW



**Full stop end: LH or RH**  
Used with 150, 175  
ZINCALUME & COLORBOND  
NOT AVAILABLE IN NSW or Qld



**Spike bracket**  
Used with 150 & 175  
GALVANISED  
Queensland only

# Other important information

## Fall

Install gutters with a suitable fall to avoid ponding and to allow water to easily flow away. Steeper falls are preferred for prolonged life of the gutter. Refer to the BCA and the Australian Standards for guidance.

## Metal & timber compatibility

Lead, copper, bare steel and green or some chemically-treated timber are not compatible with this product; thus don't allow any contact of the product with those materials, nor discharge of rainwater from them onto the product. If there are doubts about the compatibility of other products being used, ask for advice from our information line.

## Roof drainage system design

Roof drainage systems should be designed and detailed by a suitably qualified trade or professional in accordance with the BCA and the Australian Standards. Particular reference should be made to the correct sizing of gutter; quantity and placement of downpipes; and the provision of appropriate overflow devices. Some supporting guidance is available in our publication Using Lysaght Roofing & Walling (Section 6 – Roof Drainage).

## Adverse conditions

If these products are to be used within 1 km of marine, severe industrial, or unusually corrosive environments, ask for advice from our information line.

## Installation Advice

The roof drainage system should be installed using good trade practices and by a certified installer.

For sealed joints use screws or rivets and neutral-cure silicone sealant branded as suitable for use with galvanised or COLORBOND®/ZINCALUME® steel.

## Disclaimer, warranties and limitation of liability

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## Clean up

Remove all plastic cover strips from product and dispose of correctly.

Sweep all metallic swarf and other debris from roof areas, gutters, downpipes, overflow devices and all other roof drainage components, at the end of each day and at the completion of the installation.

## Maintenance

The roof drainage system (gutter, downpipes, overflow devices and all other components) must be cleaned out on a regular basis.

Refer to our publication Maintenance Manual for Roofing & Rainwater Goods.



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**1800 641 417**

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LYSAGHT**



# Water Overflow & Residential Gutters

## Notes on the effective Design, Detailing , Installation and Maintenance of Residential Roof Drainage Systems

Under the Environmental Planning and Assessment Act 1979 and its Regulations, all building work must be carried out in accordance with the Building Code of Australia (BCA). In addition to referring to Australian Standards AS/NZS 3500.3 (2003), and AS/NZS 3500.5 (2000), the BCA also contains requirements for the disposal of surface water in Volume One, in Performance Requirements FP1.2 and FP 1.3, and in Volume Two, in Part 3.5.2, namely, Performance Requirement P2.2.1 and Clauses 3.5.2.1.and 3.5.2.4.

The most common means to satisfy these requirements for roof drainage (ie. guttering) installations is via compliance with the National Plumbing and Drainage Code AS/NZS 3500.3 - 2003.

Furthermore, in each state and territory it is necessary to satisfy the relevant regulation. For example, the NSW Code of Practice for Plumbing and Drainage (2006) adopts AS/NZS 3500.3-2003 and associated amendments. (Further information is available at [www.deus.nsw.gov.au/water/plumbing.asp](http://www.deus.nsw.gov.au/water/plumbing.asp))

In the design and detailing of a roof drainage system consideration must be given to a range of the factors such as rainfall intensity, roof catchment area, gutter size/capacity, gutter fall, gutter outlets (sumps, rain-heads, nozzles), downpipe size, quantity and placement, overflow consideration, material selection, jointing, etc.

For residential roof drainage systems high fronted gutters are a popular aesthetic choice to hide the lower edge of tiles or roof cladding. Some simple overflow methods that can be employed on high fronted gutters are listed below;

- A) Methods related to the design and installation of roof drainage systems ;
- Slotted front of gutter - a simple and popular choice which allows for water overflow through the slots visible on the front face of the gutter.
  - Specifically located overflows as permitted in the BCA ie;
  - Inverted downpipe drop/pop at high points in the gutter but set at a level below the fascia top.
  - Stop ends cut down to a lower level to act as a weir. Stop ends weirs could be hidden at the high

point of the gutter and designed as part of an expansion joint.

- Rain-heads with overflow weir
- Holes, slot, or weir at downpipes
- Gap between the fascia and the gutter back – a packer is inserted between the gutter back and the fascia

or any of a number of other proprietary systems and trade solutions.

B) Methods related to alternative building designs methods;

- Unlined eaves - eliminates the issue where the house design suits.
- Gutter installed such that the gutter front is fully below the top of the fascia.
- Design for a higher rainfall intensity, as used for internal box gutters.
- Back flashing - where gutter support brackets allow back flashing installation (eg external brackets).

The detailing and sizing of the selected overflow method/s is normally completed by the designer/installer, but must be adequate for the situation and must meet the relevant performance requirement of the BCA and Australian Standards.

While there may be some variations from state to state, contractors who install guttering systems are generally required to hold an appropriate licence. In NSW, for example, a licence in the category of Builder, Plumber or Roof Plumber issued by the Office of Fair Trading is required and it is an offence to undertake this work without an appropriate licence. The work is required to comply with the appropriate codes and standards. Statutory warranties normally apply and consumers have a right to lodge a complaint and have it dealt with by the appropriate authority. In NSW, for example, the statutory warranty is 7 years under the Home Building Act.

# Water Overflow & Residential Gutters

In the installation of the roof drainage system, particular focus should be given to the following;

- Attention to the use of compatible materials for drainage system components, leaf-guard type system components and compatible fasteners/sealants to connect and seal the components
- The position of the gutter in relation to the fascia
- Installation of the specified gutter and downpipes, ensuring that downpipes are installed in the correct locations and numbers.
- Gutter fall, ensuring sufficient fall and that it is in the direction of the downpipes.
- Overflow has been considered and specific details are installed where required (such as when the gutter front is higher than the top of the fascia).
- During the installation all debris and loose waste materials (swarf, fasteners, etc) must be cleaned off at the end of each day and at the completion of the installation to prevent blockages of the drainage system or deterioration of the individual components. Any protective films should also be removed as part of the installation process.

In the longer term, the ability of a roof drainage system to handle overflow will also depend on the regular cleaning of the system. For example the removal of plant or animal matter (leaves, fungal growth, dropping, nests, etc.) and debris from gutters, leaf-guard type systems and the gutter overflow devices to ensure free drainage of water.

To ensure a long life the roof drainage system the maintenance requirements of the roof drainage system should be forwarded to the occupier/owner of the building and should be fulfilled. Adequate maintenance is a requirement of rainwater good warranties.

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