

The use of Rib Caps on Colorbond® and Zinalume® Steel - SA

Introduction

Flashing forms the intersections and terminations of roof and wall cladding to seal against water penetration. The most common locations for roof flashing are at valleys, ridges, eaves, at roof-to-wall intersections and roof penetrations such as chimneys and skylights.

Flashing materials must be durable, weather resistant and compatible with adjoining materials, and should be able to accommodate movement in the roof and/or wall cladding and have low maintenance requirements.

Rib caps used on installations, as depicted in *Figure 1. Rib Cap on ridge*, also falls within the flashing category.

Rib Cap

Rib caps are often required to provide a weather-tight and aesthetically pleasing design to the roof and wall cladding installation.

The standard and most common use of a rib cap is to allow the designer to form a gable roof with a single sheet without ridge flashing, making it a specialized flashing and not a common practice or addition to a building.



Figure 1. Rib Cap on ridge – continuous sheet roof and wall



Figure 2. Ridge flashing – separate sheets for roof and wall

The efficiency of a rib cap is realized when used on the roof ridge, to limit the risk of water leakage. This is not the case where rib caps are used on other sections of the roof, to cover areas where damage had occurred on flat or low sloped roof sections.

- Caps are fitted over the cut ribs, which open up when the pans are bent. Fitting the rib caps can be time-consuming and care must be taken with sealing to avoid any possibility of leakage.
- The ribs must be cut squarely, with a metal cutting blade in a power saw, set to the depth of the rib minus 2mm.
- Some roll formers are able to supply pressed steel caps to suit their specific profile, though the range of angles is limited. Caps can be handmade to suit any angle from flat sheet.
- Concealed fix sheeting is most frequently used for capped bent ribbed roofs. For these roll former specific profiles, the rib caps can also be made from pieces of rib profile cut from a short length of cladding. A neutral-cure silicon sealant should be used.

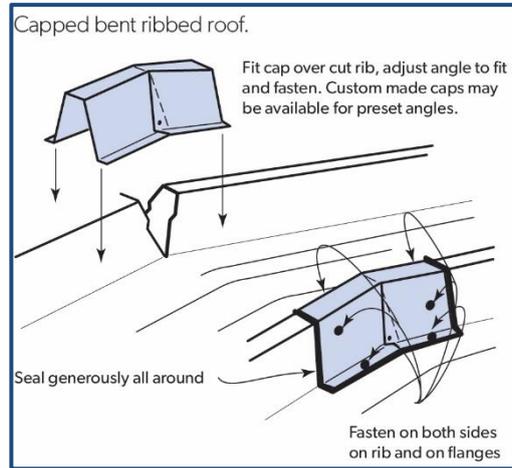


Figure 3. Lysaght Flashing Guide, p.14

The use of rib caps are at the sole discretion of the design and installation team and care should be taken to ensure the rib cap conforms to the roll formed material's installation practices and requirements.

BlueScope does not recommend the use of Rib Caps to repair damaged sections on roofs. Any damage caused as a result of installation or negligence, where the material needs to be made water-tight or to ensure the structural integrity, we suggest that new sheeting be installed.

For existing and/or older buildings where accidental damage has occurred, and a [temporary solution](#) to regain water tightness or structural stability is required, the installation of a Rib Cap can be used. Since this would be a temporary solution, it is important to treat as a maintenance component, which will require annual maintenance and replacement or servicing as required during the roofing lifecycle. In these instances the most desirable and suitable flashing materials are COLORBOND® steel or ZINCALUME® steel sheet formed to suit the application.

While zinc-coated steel can be used as flashing material with COLORBOND® steel or ZINCALUME® steel, it has a reduced lifespan and risk of inert catchment corrosion, making it less desirable for long-term applications. Please refer to [Corrosion Technical Bulletin CTB 25 - Inert Catchment](#).

Before installing a Rib Cap, the associated supplier of roll formed sheets should be consulted, to verify compliance of the intended installation, and consider any factors that could affect the specific profile's functionality, performance and associated warranty.

The asset owner should also be notified that the capped area and Rib Cap would become a maintenance solution, with routine attention being required to ensure functionality and performance of the Rib Cap and underlying roofsheet.

Additional considerations

The installation of a Rib Cap can cause a degree of obstruction for run-off water and debris from the roofing area, so the degree of obstruction must be minimised during installation.

Should additional fixings be installed to secure the Rib Cap, only compatible Class 3 or 4 fasteners or Aluminium rivets be used.

Examples of Rib Cap installations using inferior materials, incorrect installation or on low sloped continuous sheets:



- Rib Caps must not be used to regain structural integrity of the roofing sheet(?).
- The performance of Rib Caps can be negatively affected by continuous foot-traffic and lack of maintenance.
- Rib Caps can restrict thermal movement of concealed fix systems and cause deformation or additional damage to the underlying sheet.

Rectification

Where localised corrosion has occurred on a roof, the damaged area should be repaired, refer to:

- [Technical Bulletin TB-2](#) Overpainting and restoration of exterior BlueScope coated steel products.

Related BlueScope Technical Bulletins

[Technical Bulletin TB-2](#) Overpainting and restoration of exterior BlueScope coated steel products

[Technical Bulletin TB-4](#) Maintenance of COLORBOND® Steel and ZINCALUME® Steel

[Corrosion Technical Bulletin CTB-12](#) Dissimilar metals

[Corrosion Technical Bulletin CTB 25](#) Inert Catchment

Referenced Australian Standards

AS SA HB39:2015 - *Installation code for metal roof and wall cladding.*

AS 1562.1:2018 - *Design and installation of sheet roof and wall cladding - Part 1: Metal*

AS/NZS 2179.1:2014 - *Specifications for rainwater goods, accessories and fasteners Metal shape or sheet rainwater goods, and metal accessories and fasteners*

AS/NZS 2728:2013 - *Prefinished/prepainted sheet metal products for interior/exterior building applications - Performance requirements*

Related Guidelines

Lysaght Flashing Guide (Updated 2024)

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- This publication is intended to be an aid for all trades and professionals involved with specifying and installing LYSAGHT® products and not be a substitute for professional judgement.
- It is suggested that a rib-cap be used for new installations, and the warranty will be rendered null and void if the instructions in this TB are not closely followed.
- Material Warranty Terms and Conditions are available at <https://bluescope.co.za/resources#warranties>
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