

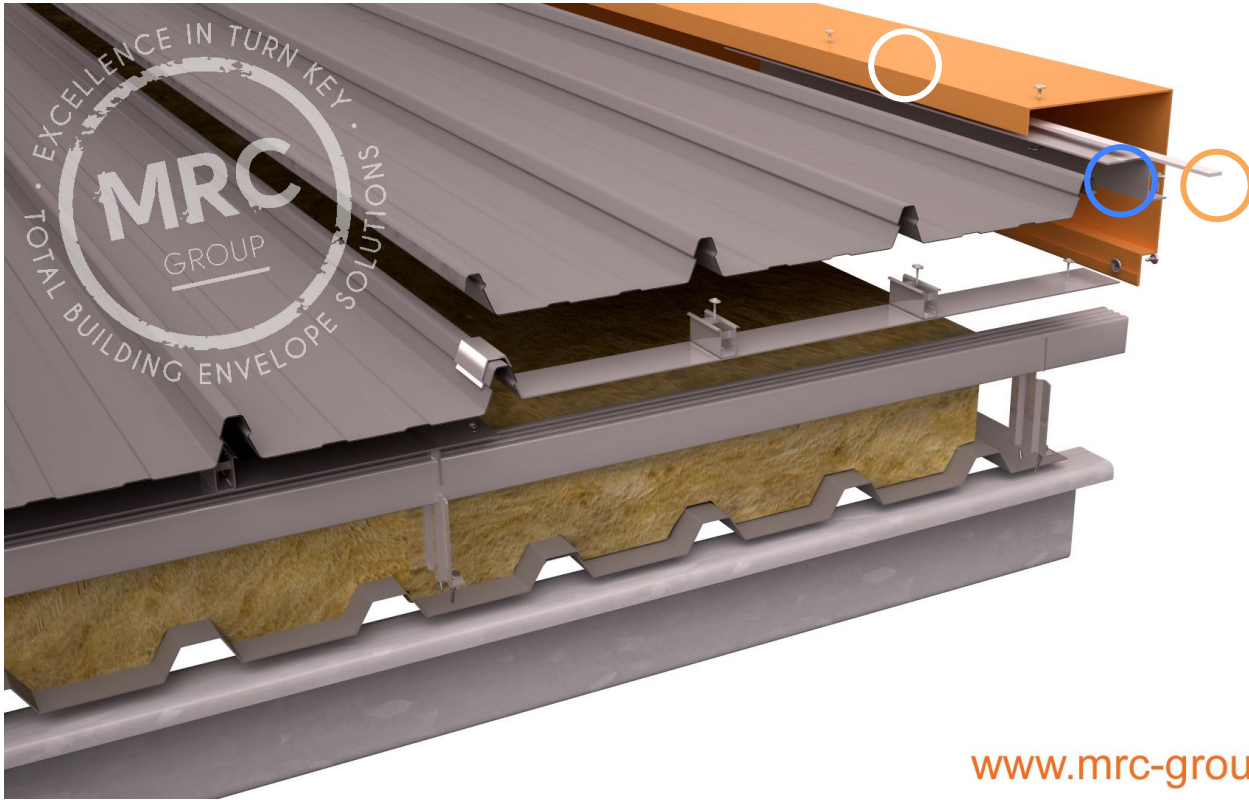
# THE FERRUM RANGE

Excellence in Metal  
Roofing & Cladding

[info@mrc-group.co.za](mailto:info@mrc-group.co.za)  
[www.mrc-group.co.za](http://www.mrc-group.co.za)



## EXCELLENCE IN CONSTRUCTING PERIMETER DETAILING - BARGE



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### EXCELLENCE IN CONSTRUCTING A BARGE DETAIL:

The purpose of a barge flashing is to complete the intersection between the roof and wall planes and to seal the building against water penetration. For a barge flashing to be effective, it must be durable, low-maintenance, weather resistant, compatible with adjoining materials, and also able to accommodate thermal movement.

The complete construction of the barge detail must prevent direct and wind driven water from entering the building and close off the insulation void. All barge flashings must be fixed to the independent zed support to allow the roof sheet to thermally move without distorting the barge flashing.

MRC Group's commitment to excellence in perimeter detailing is backed with the unrivalled single source 'Guardian' System Warranty which covers design, materials, installation & maintenance for the term of the roofing and cladding system.

### ESSENTIAL KEY COMPONENTS:

-  METAL BARGE FLASHING WITH FASTENERS
-  SEALANT TAPE BETWEEN THE RIB AND THE ZED
-  FLASHING TO BE FIXED TO THE INDEPENDENT ZED

The angle of the turn down of the edge of the barge flashing is to be a minimum of 30 degrees

Please note it is essential that ALL components are installed correctly to withstand the impact from wind driven rain and to stop water ingress

JOHANNESBURG – DURBAN – CAPE TOWN

For project specific specifications, CAD Details, Samples or technical assistance please contact our technical department on +27 (0) 861 672 476 or refer to our Technical Brochure available on [www.mrc-group.co.za](http://www.mrc-group.co.za)

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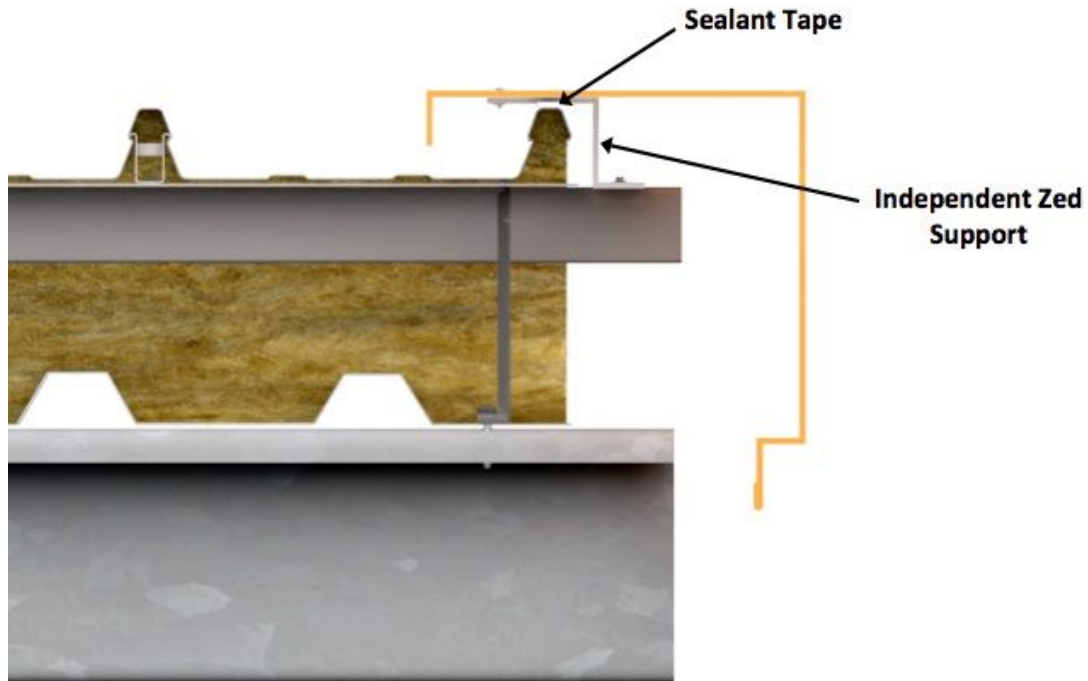
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## EXCELLENCE IN CONSTRUCTING PERIMETER DETAILING - BARGE



### TECHNICAL DATA FOR CORRECT CONSTRUCTION:

#### DESIGN OF THE INDEPENDENT METAL ZED SUPPORT

The barge flashing is fixed to the independent zed support to allow the roof sheet to thermally move without putting additional thermal stress on the flashing. Should the fixing between the barge flashing & the zed support leak then the water will drain onto the roof sheet & into the gutter therefore not entering the building.

'Secret fix' or 'concealed fix' roof sheets can thermally move 1 – 2mm per linear metre of roof sheet in steel or 5 – 6mm in aluminum i.e. a 30 metre long steel roof sheet can thermally move 30 – 60mm. If the barge flashings are fixed to the rib of the roof sheet or the flashing barge clips do **NOT** allow for this amount of thermal expansion then the pressure on the barge flashing will cause visual distortion, loosening the fixings and could eventually fall off the building.

To determine the overall girth of the zed support the following should be considered:-

- Purlin spacing
- Height of the secret fix roof profile
- Wind loads, Site location and Environment

Minimum gauge of steel used for the zed support to be 1.6mm or in the case of aluminum a minimum of 2mm.

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## EXCELLENCE IN CONSTRUCTING PERIMETER DETAILING - BARGE

### TECHNICAL DATA FOR CORRECT CONSTRUCTION:

#### DESIGN OF THE METAL BARGE FLASHING

To determine the overall girth of the barge flashing the following should be considered:-

- Roof Profile
- Roof sheet finishing position
- Depth of the roof construction
- Wind loads, Site location and Environment

If the final position of the roof sheet doesn't finish flush then the side of the roof sheet should be turned up or a larger flashing should be considered. If the flat surface of the steel barge flashing is greater than 270mm then a minimum 0.8mm gauge material should be used.

Should the gable of the building be angled on plan then you could need barge flashings that cover 2 or 3 ribs, ensuring no water ingress along the length of the barge.

#### SEALANT TAPE BETWEEN THE ROOF SHEET & THE FLASHING

It is essential to install 1 continuous compressed 8mm diameter continuous self-adhesive butyl tape or impregnated polyurethane foam sealing strip between the zed support and the rib of the 'secret fix' or 'concealed fix' roof system to ensure that wind driven rain does not enter the detail providing a clean, dry and high performing detail.

#### FIXING THE BARGE FLASHING

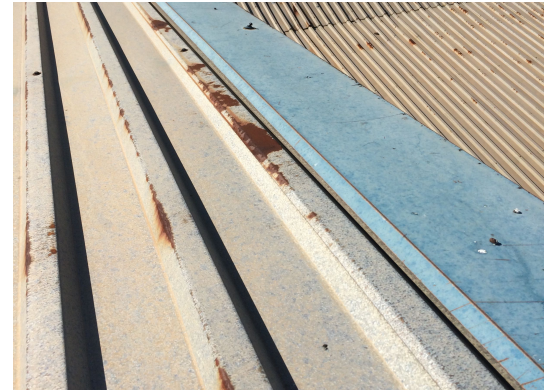
Class 3 or 4 (depending on the location of the site) tapered stitching screw with 16mm diameter aluminum bonded 3mm EPDM washer, at a maximum of 500mm centres.

#### SYSTEM WARRANTY

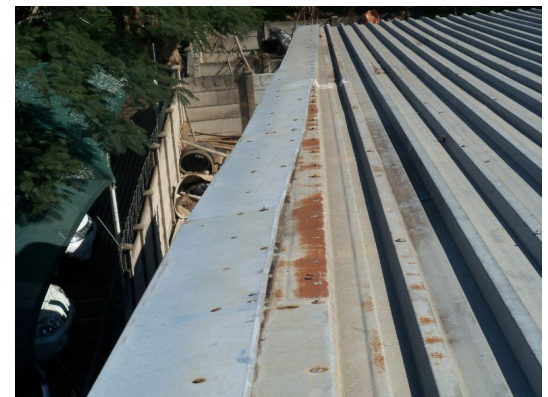
Up to 20 year, single source 'Guardian' System Warranty covers Design, Materials, Workmanship & Maintenance.

#### CAUTIONARY NOTE

For the long term performance of the barge detail, it is essential that all components are installed correctly. Should any of the components such as sealant tape or zed support be omitted then water will enter the detail.



Incorrectly designed Steel barge flashing



Angled barge flashing causing water ingress



Different size lapped barge flashing causing leaks

### ACCREDITATIONS



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