

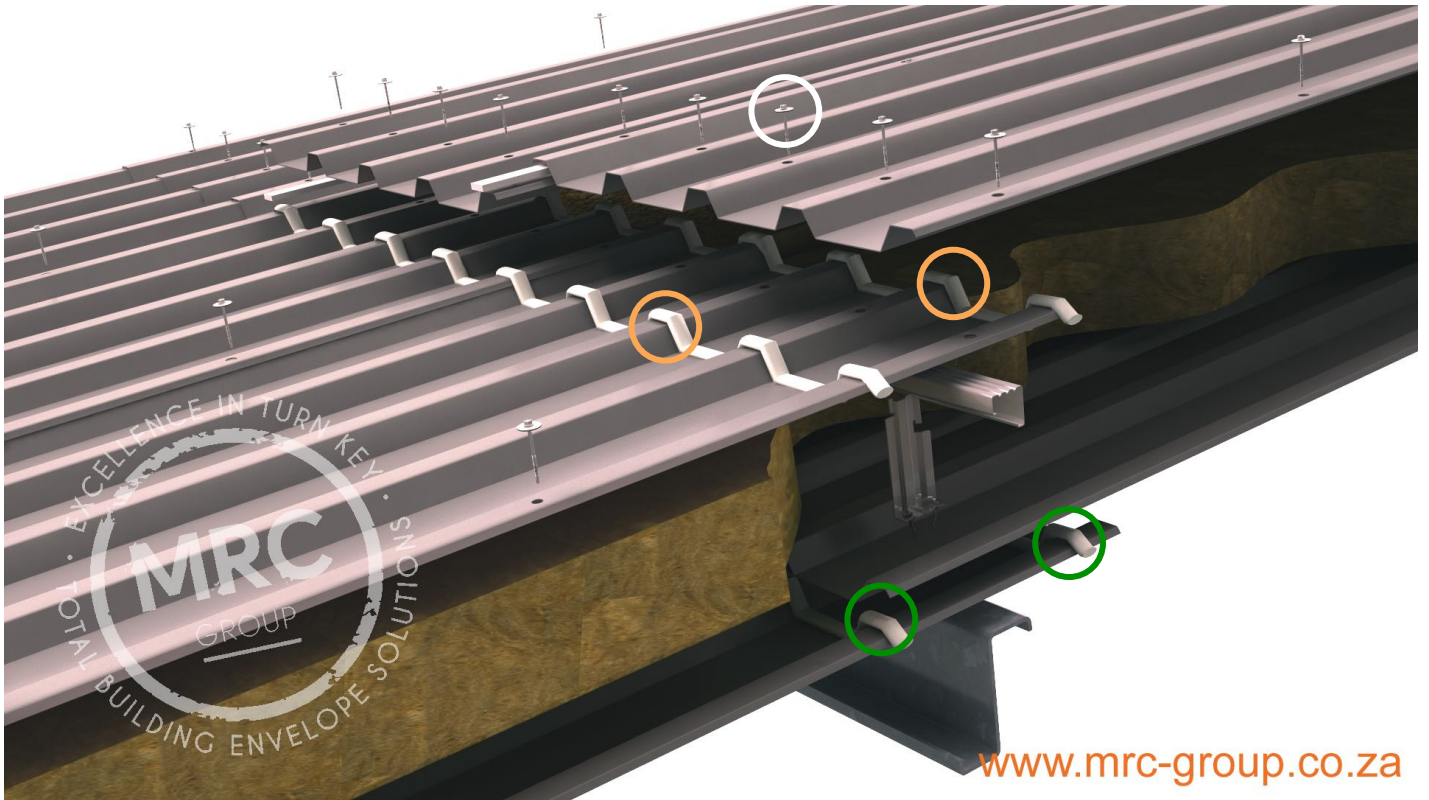
# THE FERRUM RANGE

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 PIERCED FIX SHEETING – END LAPS



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

### EXCELLENCE IN CONSTRUCTING 'PIERCED FIX' ROOF SHEETING END LAP DETAILS:




If 'Pierced Fix' roof sheeting is installed and the roof slope length is longer than the manufactured roof sheeting supplied, then end laps need to be formed over the supporting purlin.

For an end lap detail to be effective, the detail must prevent direct and wind driven water from entering the building, close off the insulation void and also be accommodate thermal movement.

All end laps must have 2 runs of end lap sealant and the roof sheeting secured at every rib position with fasteners.

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

### ESSENTIAL KEY COMPONENTS:

-  FASTENERS AT EVERY RIB
-  END LAP SEALANT TAPES BETWEEN ROOF SHEETS
-  OPTIONAL END LAP SEALANT TAPES FOR AIR TIGHT SEAL

All end laps formed must be over a purlin position to support the detail complete with internal and external sealant tape

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

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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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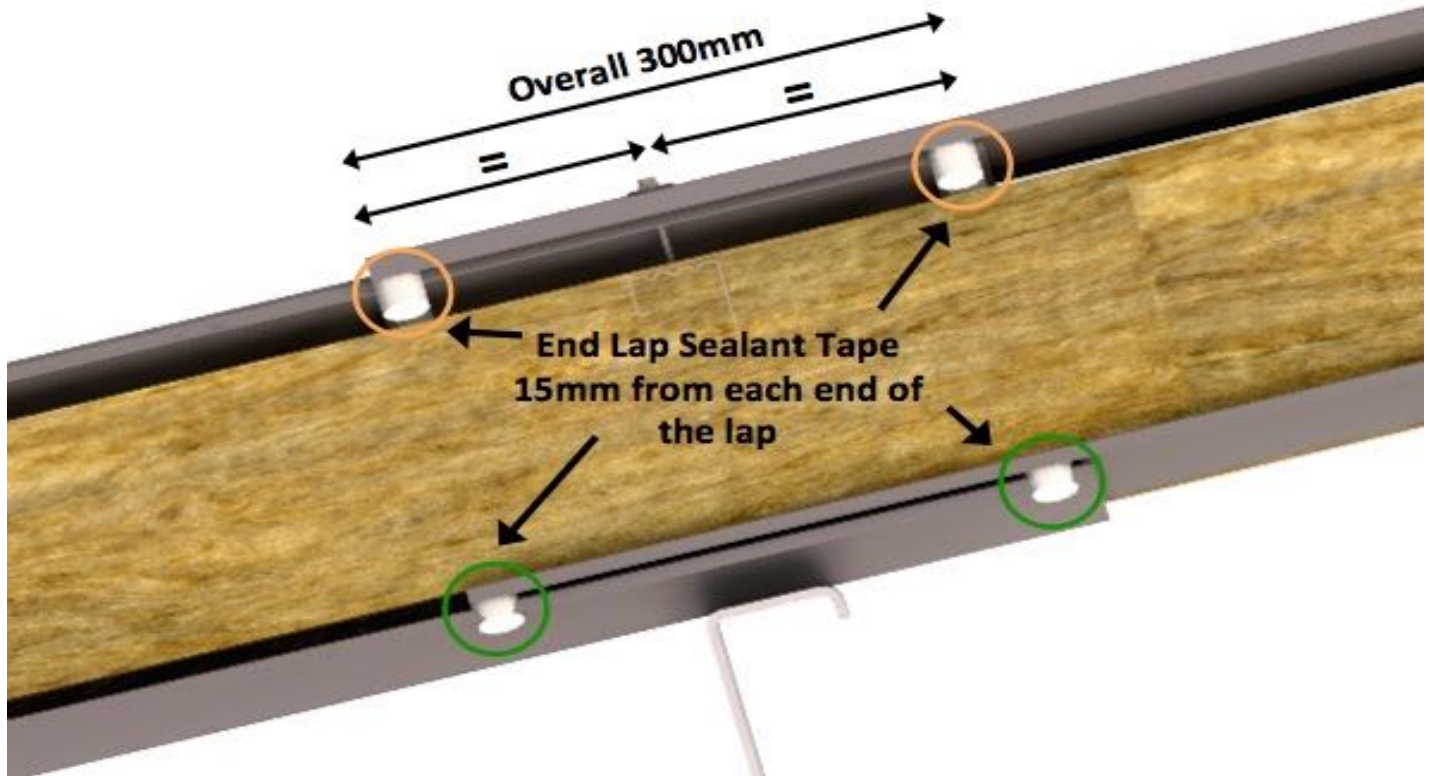
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## EXCELLENCE IN CONSTRUCTING PIERCED FIX SHEETING – END LAPS



### TECHNICAL DATA FOR CORRECT CONSTRUCTION:

#### DESIGN OF THE END LAP DETAIL

Please note that end lap details are used with 'Pierced Fix' metal roof systems and should ONLY be used down to a minimum roof pitch of 7.5 degrees. Roof pitches below 7.5 degrees should always use a single roof sheet with no end laps i.e. a 'Secret Fix' metal roof system.

#### ASYMMETRIC OR SYMMETRICAL END LAP

Some designers recommend an asymmetric design where the fixing is positioned typically towards the top third of the lap, however this has been shown to apply most of its compression to the sealant positioned towards the top of the end lap and less compression to sealant positioned towards the bottom of the lap.

MRC Group prefers the symmetrical design of a centrally fixed end lap detail that allows the fixing to apply equal pressure to the sealants positioned at the upper and lower ends of the lap, which has been shown to provide a more effective continuous seal.

#### SECURING THE END LAP

Class 3 or 4 (depending on the location of the site) main fixings complete with washers to suit the roof sheet material and the structure, are to be used through EVERY rib into the structure below.

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## EXCELLENCE IN CONSTRUCTING PIERCED FIX SHEETING – END LAPS

### TECHNICAL DATA FOR CORRECT CONSTRUCTION:

#### END LAP SEALANT TAPE BETWEEN THE ROOF SHEETS

Compressed 8mm diameter continuous self-adhesive butyl tape or impregnated polyurethane foam sealing strip can increase the structural strength of your roof by as much as 40%.

It is essential to install 2 continuous end lap seals to ensure a clean, dry and high performing detail as follows:

- External end lap seals are used to stop wind driven rain from entering the lap. Should water and debris enter this detail then the process of corrosion within the joint will rapidly occur, long before the roof sheet material guarantee expires.
- Internal end lap seals are used to ensure that moisture vapour that forms within the building on the inside of the roof sheet, does not enter the detail. Should this seal not be installed then the moisture will roll down the inside of the roof sheet and enter the end lap causing rust.

Any moisture captured within the end lap will become acidic over time causing the corrosion effect to speed up.

#### OPTIONAL - END LAP SEALANT TAPE BETWEEN THE LINER SHEETS

The opportunity to seal the end laps of the liner sheet of a built up system, provides the designer the opportunity to specify the most energy efficient roofing & cladding system available.

The control of air leakage through a built up system, by sealing the liner sheet and its interaction with the wall, you will significantly reduce the air flow and therefore reduce your heating / cooling costs and associated carbon emissions.

#### SYSTEM WARRANTY

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

#### CAUTIONARY NOTE

For the long term performance of any end lap detail, it is essential that all components are installed correctly. Should any of the components such as internal or external sealant tape or fixings be omitted or if the length of overlap is reduced then water will enter the detail.



Failing end lap detail that had no sealant tape



Corroded end laps on IBR roof sheeting



External waterproofing locking the moisture in the lap

### ACCREDITATIONS



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