



# ROOFBATTENZ®

STEEL PURLIN SYSTEM

INSTALLATION MANUAL  
NEW ZEALAND



## GENERAL INFORMATION

### PREFACE

Batten Manufacturers limited, Trading as BATTENMAN, is a New Zealand owned and operated manufacturer of innovative products and systems to the construction sector.

Specialising in roll formed steel products and componentry.

For more information on BATTENMAN building products, please refer to [www.battenman.co.nz](http://www.battenman.co.nz) or Phone 0508 BATTEN (0508 2288 36)

### INTRODUCTION

BATTENMAN ROOFBATTENZ have been specifically designed and rigorously tested in New Zealand to provide structural bracing for both residential and light commercial buildings within the scope and limitations of the current NZS3604:2011 Standard including AS/NZS1170

### TECHNICAL ASSISTANCE

For technical assistance please refer to [www.battenman.co.nz](http://www.battenman.co.nz) or Phone 0508 BATTEN (0508 22 88 36)

### WARRANTY

For more information on BATTENMAN building products and system warranties please refer to [www.battenman.co.nz](http://www.battenman.co.nz) or phone 0508 BATTEN

### LIABILITY

Batten Manufacturers Limited T/A BATTENMAN will not accept any liability for its bracing products and systems which are not correctly installed as stipulated in this manual.

### PERFORMANCE

BATTENMAN® RB40 metal battens have been engineered to provide a premium, structurally sound substrate, for residential and light commercial applications

### BENEFITS OF USING BATTENMAN RB40 ROOFBATTENZ

Lightweight Steel Battens are the future of construction, Providing both a superior roofing installation system & a more reliable bracing element. With simple installation, The dimensionally accurate substrate offers Strength, Durability. Improved Safety & Reliability.

Roofing professionals love the increased friction surface, embossed surface for easy screw placement in difficult areas.

### LIMITATIONS OF USE

RB40 Roof Battenz are designed for use as purlins in steel and timber framed residential and light commercial applications within the limitations of associated span and spacing charts & in accordance with NZ steel durability statement.

### WHO MAY INSTALL BATTENMAN CB35

Installation of RB40 ROOFBATTENZ is recommended to be undertaken by trained installation professionals or supervised by those with the appropriate license category where the building work has been identified as Restricted building work.

### HEALTH AND SAFETY

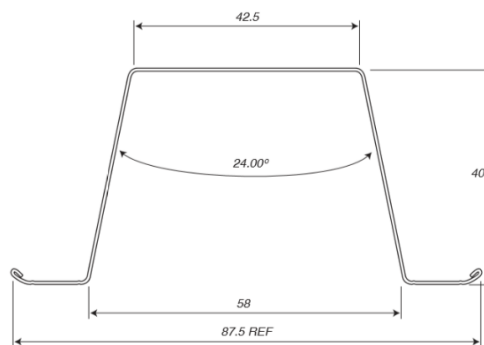
It is important to follow good practice at all times and to ensure appropriate safety precautions are taken when installing BATTENMAN® RB40 ROOFBATTENZ.

### COMPATIBILITY WITH ASSOCIATED PRODUCTS

BATTENMAN® RB40 ROOFBATTENZ are compatible with most associated building products. Run off from, or contact with materials that are incompatible with zinc should be avoided. It is recommended that the installer seeks advice if in doubt.

## BATTENMAN ROOFBATTENZ RB40

Battenman RB40 metal ROOFBATTENZ® have been designed to comply with NZS3604:2011 & AS NZS 1107 standards as they apply to residential and light commercial timber framed buildings. To achieve the required performance of the **RB40 ROOFBATTENZ®** system the correct components must be used and installed in strict accordance with the installation instructions and diagrams.



### MATERIAL SPECIFICATION RB40

<b>MATERIAL THICKNESS</b>	.55BMT & .075BMT
<b>TENSILE GRADE</b>	G550 (550MPa Minimum yield stress)
<b>CORROSION RESISTANCE</b>	Z275 (Minimum 275gm/sq.m Zinc coating)
<b>DURABILITY</b>	50 years*

### DETAILS

<b>AVAILABILITY</b>	RB40 ROOFBATTENZ® are available in 0.55 and 0.75BMT Stock lengths are 6.5metres, With handed 45° & 135° Mitre cuts.
<b>HANDLING AND STORAGE</b>	RB40 ROOFBATTENZ® Should be stored in a flat, dry area, off the ground.
<b>ENVIROMENT</b>	Care for your environment. Steel is 100% recyclable
<b>PRECAUTIONS</b>	The zinc coating used to protect BATTENMAN® RB40 is not recommended for use in severe industrial, or highly corrosive enviroments, within 500m of salt water locations & In accordance with Galvsteel durability statement. Care must be taken to not damage the protective galvanised coating, or expose the product to environmental conditions that may cause premature corrosion. Take appropriate safety precautions
<b>DESIGN &amp; FLEXIBILITY</b>	While top hat products are very versatile, Independent engineering should be carried out for applications not outlined in these instructions.
<b>FEATURES</b>	Increased friction surface Rolled safety edge – for ease of handling Anti-slip screw guides for ease of installation of sheet roofing
<b>CUTTING</b>	Care must be taken to not damage the protective Zinc coating. If cutting is required you may use any of the following: Tin Snips, Hack saw. Cold cut saw (burrs must be cleaned and removed)

## PRODUCT DESCRIPTION AND FEATURES

BATTENMAN® RB40 ROOFBATTENZ® have been specifically designed for residential and light commercial construction, as a superior bracing element and substrate for installation of Corrugated and trapezoidal roofing iron

They may be used as a direct upgrade to projects where timber purlins have been specified. Not only lightweight, dimensionally accurate and straight. They are also a more cost efficient solution.

They expand and contract at the same rate as steel roofing materials in extreme temperature changes, so minimise the likelihood of buckling ridge flashings, and Improve the safety for roofing contractors with installation of corrugated iron.

They can be fitted to both timber and steel trusses. Ideally suited to timber framed homes, Steel framed homes, Steel framed buildings and carports.

Our 40mm ROOFBATTENZ® are designed for use with corrugate roofs or wall claddings. With spans of 1200mm at 900mm spacings they can be used in extra high windzones and where snow loads are present. They are available in 0.55BMT & .075BMT G550 Z275 steel.

### ROLLED SAFETY EDGE

This provides an easy handling feature to the product. Making battens much safer and easier to work with

### KNURLED MOUNTING SURFACE

The top of the RB40 features a Two way dimpled surface,

One acts as an increased friction surface, to assist in minimising falls, while also reducing drag when applying underlay and roof sheeting.

The Reverse Dimple Provides a screw guide for ease of installation of sheet products.

### PRE-MITRED BATTEN

ROOFBATTENZ® come with Mitred ends for ease of installation into Hips and valleys, saving installation teams time & minimising waste.

### LAP JOINTING

The top hat profile design of the RB40 ROOFBATTENZ® means that this product can be easily joined through a process known as lapping. Resulting in Faster installation, without sacrificing construction quality.

## INSTALLATION

Installation of RB40 ROOFBATTENZ® is recommended to be undertaken by trained installation professionals or supervised by those with the appropriate license category where the building work has been identified as Restricted building work.

The following installation guide has been provided by Batten Man as reference for the proper installation of RB40 ROOFBATTENZ®

Please ensure you are using the latest guide by visiting [www.battenman.co.nz](http://www.battenman.co.nz)

## ROOFBATTENZ PRODUCT SELECTION

BATTENMAN® RB40 ROOFBATTENZ® are manufactured in standard lengths of 6.5 metres, and are available in 0.55BMT and 0.75BMT, suitable for a range of applications.

This reference chart is designed to assist with the selection of RB40 ROOFBATTENZ® required for your project.

BATTENMAN® ROOFBATTENZ APPLICATION CHART					
WINDZONE	LOW (32m/s) ULS 0.62kPa SLS 0.40kPa	MEDIUM (37m/s) ULS 0.82kPa SLS 0.53kPa	HIGH (44m/s) ULS 1.16kPa SLS 0.76kPa	VERY HIGH (50m/s) ULS 1.50kPa SLS 0.98kPa	EXTRA HIGH (55m/s) ULS 1.82kPa SLS 1.16kPa
RB4055	x	x	x		
RB4075	x	x	x	x	

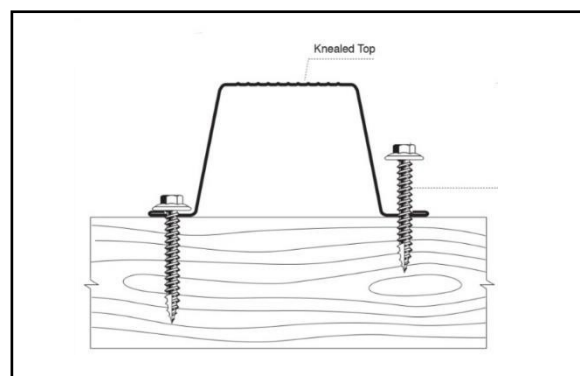
## APPROVED FASTENERS

APPROVED ROOFBATTENZ® FASTENERS	
APPLICATION:	RECOMMENDED FASTENER
FIXING METAL BATTEN TO TIMBER SUBSTRATE	2x 12 x 40 Screws Minimum 30mm penetration into substrate
STEEL SUBSTRATE 0.55BMT	2x 10 x 16 Tek Minimum 3 full threads penetration

## BATTEN PLACEMENT

ROOFBATTENZ® should be fixed directly to the truss, with one fixing per side of the top hat profile.

The integrated Screw guide assists with proper locating of the approved fastener during Installation.

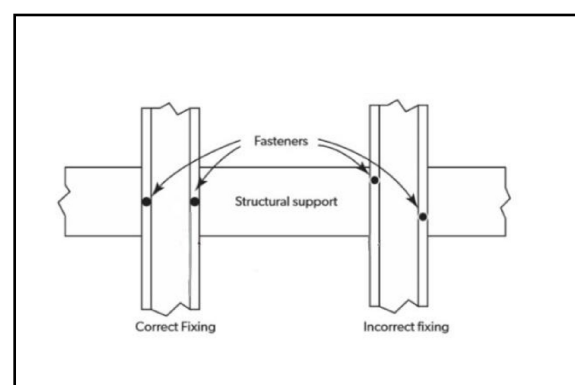


## FASTENER ALIGNMENT

Proper alignment of the approved fasteners is critical. ROOFBATTENZ® provide not only the substrate for fixing of roofing product, but when installed correctly become a critical Structural bracing element.

Correct installation of ROOFBATTENZ® requires these to be fixed at every truss junction.

Fasteners must be fitted inline, centrally on the structural support.



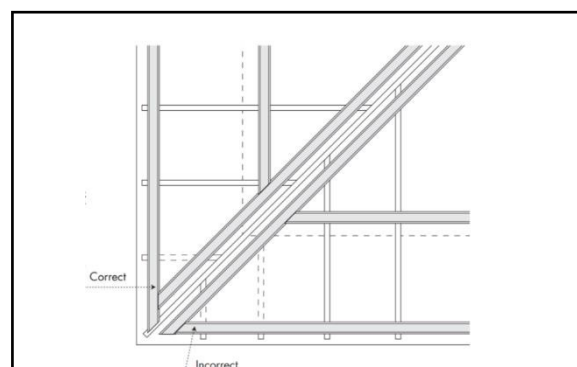
## CONSTRUCTING SYSTEM

Install Lower ROOFBATTENZ® around the perimeter of structure.

Secondly, Install ridge battens.

Followed by hips and valleys.

Intermediate battens are then spaced according to the designed wind zone requirements of the structure and in consultation with the attached span charts



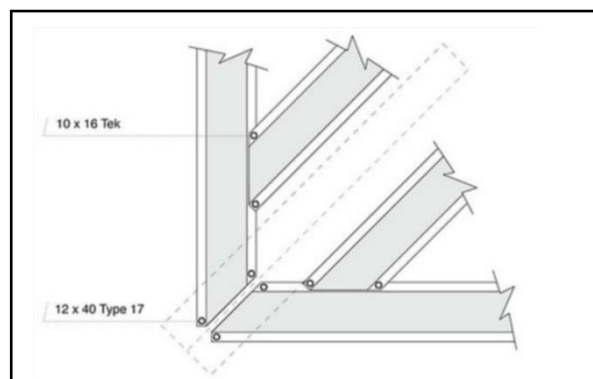


## HIPS AND VALLEYS

ROOFBATTENZ® are supplied precut with 45° and 135° Mitres for ease of installation.

Perimeter battens, should be fitted as closely as possible to the centreline of the structural support.

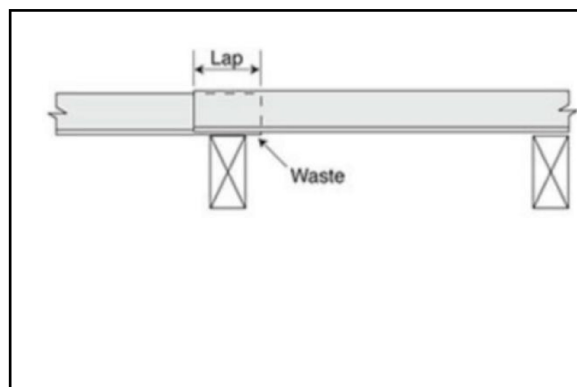
Fix Battens vertical battens to with either 10x16 Tek or 12-11 x40 Uni Tek to Perimeter as per the following detail



## JOINTING

For ease of installation, ROOFBATTENZ® should be always be installed from one end of the roof.

Lap joints should be carried out over a structural member. Allowing minimum 100mm of overlap with fasteners installed through both sections into the structure, using correct fasteners & alignment

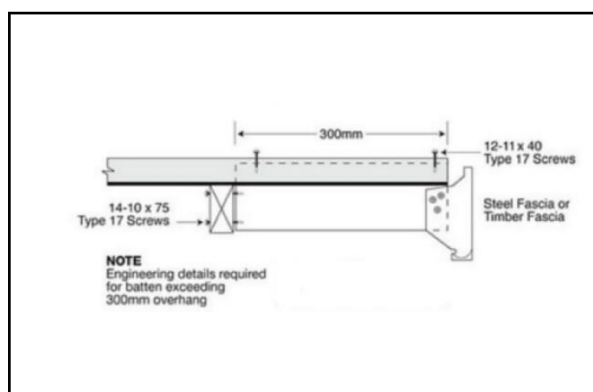


## CANTILEVER

The maximum cantilever support span is 40% of maximum supported span.

Beyond this, ROOFBATTENZ® must be fully supported.

Engineering details required for batten exceeding 300mm overhang



## SPAN & SPACING

The ROOFBATTENZ® system is designed as both a superior substrate for the fixing of roofing Iron, and a premium structural bracing element.

Installation of the system must be in accordance with the guidelines specified in this manual and is recommended to be undertaken by trained installation professionals or supervised by those with the appropriate license category where the building work has been identified as Restricted building work.

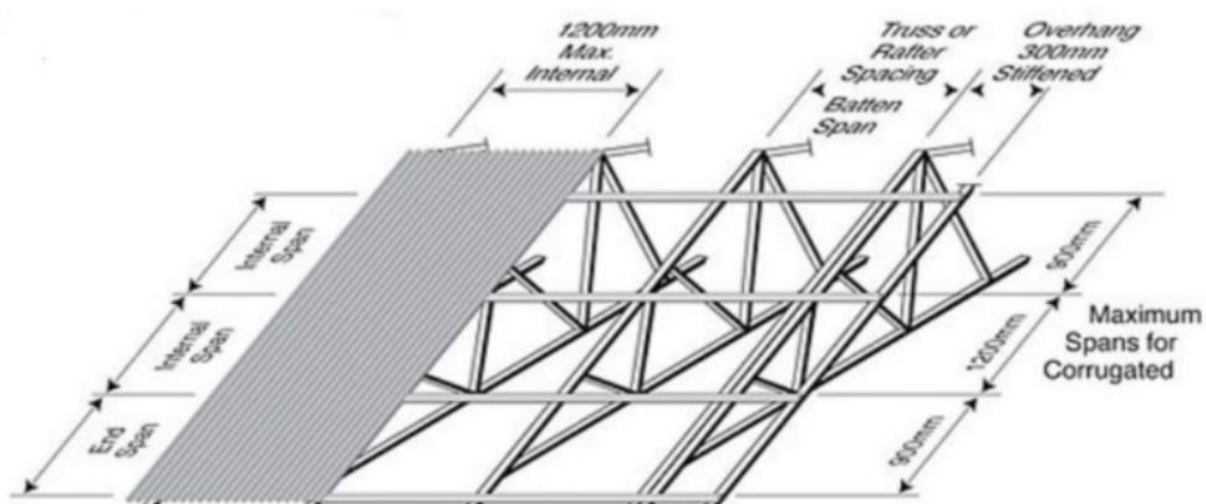
ROOFBATTENZ® s are specifically designed to meet the critical loading combinations in AS/NZS1170:2011

The tables are based on local wind pressure,  $K_1 = 2.0$

Maximum spans for purlin RB4075 and RB4055 respectively, are limited by point load (1.4kN)

Span tables are allowed as continuous over minimum 4 supports (triple spans)

ROOFBATTENZ are designed for a roof with a maximum Pitch of 30°





## MAXIMUM SPAN VS SPACING TABLES

ROOFBATTENZ® RB4075 MAX SPAN CHART				
MAX SPAN (mm) VS SPACING (mm)				
	300 Spacing	600 Spacing	900 Spacing	1200 Spacing
<b>MEDIUM</b> (37m/s) ULS 0.82kPa SLS 0.53kPa	1200	1200	1100	1000
<b>HIGH</b> (44m/s) ULS 1.16kPa SLS 0.76kPa	1200	1100	1000	900
<b>VERY HIGH</b> (50m/s) ULS 1.50kPa SLS 0.98kPa	1200	1000	900	800
<b>EXTRA HIGH</b> (55m/s) ULS 1.82kPa SLS 1.16kPa	1200	1000	800	

ROOFBATTENZ® RB4055 MAX SPAN CHART				
MAX SPAN (mm) VS SPACING (mm)				
	300 Spacing	600 Spacing	900 Spacing	1200 Spacing
<b>MEDIUM</b> (37m/s) ULS 0.82kPa SLS 0.53kPa	1100	1000	1000	900
<b>HIGH</b> (44m/s) ULS 1.16kPa SLS 0.76kPa	1100	1000	900	800
<b>VERY HIGH</b> (50m/s) ULS 1.50kPa SLS 0.98kPa	1100	900	800	700
<b>EXTRA HIGH</b> (55m/s) ULS 1.82kPa SLS 1.16kPa	1100	800	700	600

Maximum span

- The centre to centre Distance between two truss points.

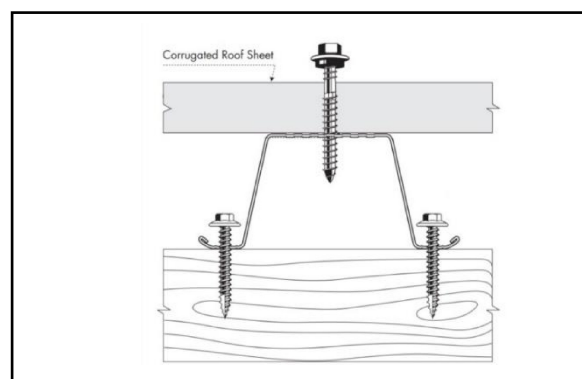
Maximum spacing

- The centre to centre distance between two ROOFBATTENZ running in parallel to each other.

## INSTALLATION OF UNDERLAY / ROOFING

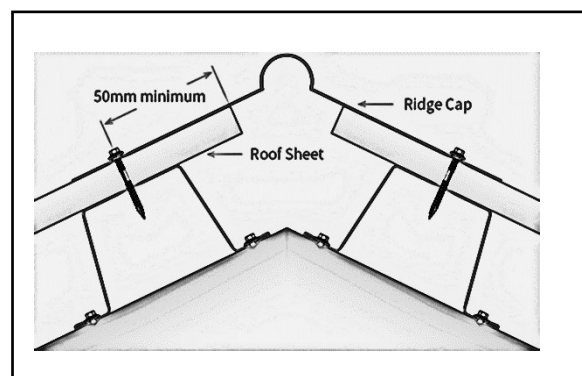
Both Kraft and Synthetic Underlay are approved for use. With corrugated Iron, this is applied over the installed battens. Simply attach underlay to the batten using double sided tape, wafer tek screws, Alternative magnets can be used.

Roof sheeting should be installed as per manufacturer's instructions and in accordance with R.A.N.Z best practice guidelines.



## FIXING THE RIDGE

Ridge fixing must be a minimum of 50mm from the end of roof sheet. As per manufacturers guidelines.



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## NOTES

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