



# BATTENMAN<sup>®</sup> CB35

CEILING BATTEN 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 CB35 Ceiling battens 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.

### 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® CB35 metal battens have been independently engineered to provide a premium, structurally sound substrate, for residential and light commercial applications

### BENEFITS OF USING BATTENMAN CB35 CEILING BATTENS

Lightweight Steel Battens are the future of construction, Providing a superior plasterboard installation system. With simple installation, The dimensionally accurate substrate offers Strength, Durability and Reliability.

Plasterboard fixers love the embossed surface for easy screw placement in difficult areas.

### LIMITATIONS OF USE

For interior application only. And for strict use In accordance with this manual

### WHO MAY INSTALL BATTENMAN CB35

Installation of CB35 Ceiling battens is recommended to be undertaken by trained BATTEMAN installation professionals and 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® CB35 and all supporting components.

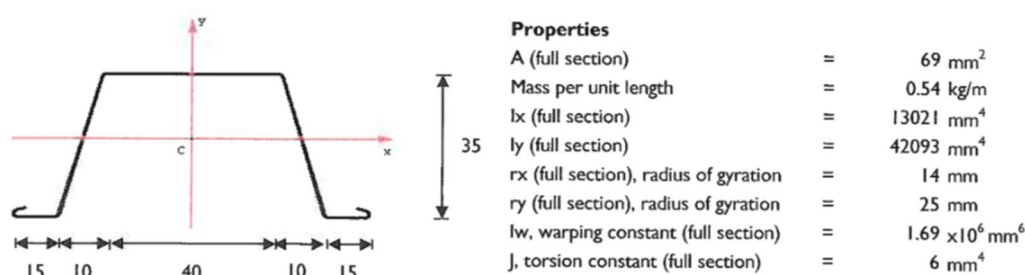
### COMPATIBILITY WITH ASSOCIATED PRODUCTS

BATTENMAN® CB35 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 CEILING BATTENS CB35

Battenman CB35 metal ceiling battens have been designed to comply with NZS3604:2011 standard, as they apply to residential and light commercial timber framed buildings.

To achieve the required performance of the **BATTENMAN® CB35** system the correct components must be used and installed in strict accordance with the installation instructions and diagrams



### MATERIAL SPECIFICATION CB35

<b>MATERIAL THICKNESS</b>	.50BMT
<b>TENSILE GRADE</b>	G550 (550MPa Minimum yield stress)
<b>CORROSION RESISTANCE</b>	Z275 (Minimum 275gm/sq.m Zinc coating)
<b>AVAILABILITY</b>	Available in custom lengths up to 7.5m

### DETAILS

<b>HANDLING AND STORAGE</b>	BATTENMAN CB35® Should be stored in a flat, dry area, off the ground.
<b>PRECAUTIONS</b>	Corrosive environments, The zinc coating used to protect BATTENMAN® CB35 is not recommended for use in unlined structures in severe industrial, or highly corrosive environments located within one kilometre of salt water locations.
<b>FIXING OF PLASTERBOARD</b>	Refer to manufacturers recommendations regarding suitable fasteners and fixing details for sheeting.
<b>DESIGN &amp; FLEXIBILITY</b>	CB35 Ceiling battens can be used to construct a plasterboard fixing substrate in accordance with the guidelines explained in this manual.

### BATTENMAN CB35 SYSTEM

<b>FIXINGS</b>	90mm Ringshank nails, or 32mm x 8g Wafer screw 10G 16x16 TEK wafer screw (Batten to Channel/Angle connection)
<b>FRAMING</b>	Moisture content of less than 16% at time of lining, must comply with AS/NZS2589.1:1997.
<b>ALLOWABLE WIND PRESSURE</b>	Suitable for up to Extra High Windzone

## PRODUCT DESCRIPTION AND FEATURES

The BATTENMAN CB-35 ceiling system provides construction professionals with a premium plasterboard fixing substrate, for all residential and light commercial projects.

Compatible with all popular domestic ceiling plasterboards, BATTENMAN Steel ceiling battens provide significant advantages over traditional ceiling fixing methods. .

Custom run ceiling battens are manufactured for individual projects and are installed by approved installation agents, known as BATTENMAN

The system is both lightweight, and dimensionally stable. Making handling easy and improving the overall finish of your construction project.

The custom run battens minimise construction waste, which is not only better for the environment, but is more cost effective for the end user. It also makes the system considerably faster to install. Helping to reduce construction times, and labour cost.

Making subcontracting this business so affordable, that not only volume builders, but many private builders are switching to the system.

The 35mm deep profile can be used both as a ceiling batten for internal fixing of ceilings and wall linings.

The top flange of the profile has an embossed surface to increase surface area for Plasterboard adhesive, while also functioning as a screw guide. Making it easier for plasterboard fixing screws to grip and "bite-in" without slippage during awkward installation positioning.

The roll formed safety edge on the bottom flange, provides improved handling during installation.

Nominal lapping (non-structural) is simple and will ensure continuity and straightness of fastener alignment.

High strength and light weight

Won't shrink warp, twist or burn

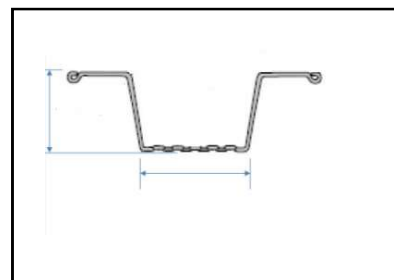
## CB35 METAL CEILING BATTEN COMPONENTS

The CB35 ceiling batten system includes a range of components, to provide installers with design flexibility, for a range of construction situations.

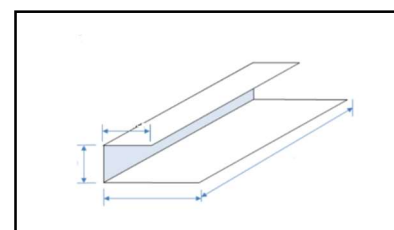
The system is suitable for Direct fix. Direct fix on clip, Ceiling height adjustment, Class 4, Class 5 ceilings.

### CB-35 Metal Batten

The CB35 comes in custom lengths up to 7.5m,  
Available in Square cut, or double notch to allow direct fixing  
to 140x35 to plate packer.



### BC35 Batten Channel – 3.0m stock length



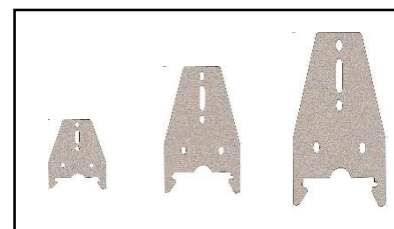
### BH35 Batten Hanger

The Hanger system is available in a number of lengths to allow  
ceiling height to be adjusted, or allow clearance for services.

BH35 Std Length

BH200 Medium length 200mm

BH250 Long length 250mm



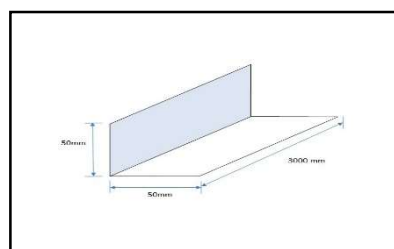
**BH35**

**BH200**

**BH250**

### BA5060 50x50 angle

This product comes in a 3.0m Stock length only



## FASTENERS

### BATTENMAN® SPECIFIED FASTENERS

APPLICATION: RAKED OR PITCHED CEILING	RECOMMENDED FASTENER
FIXING METAL BATTEN TO TIMBER SUBSTRATE	#6 Scavenger head self tapping screws. Minimum 30mm penetration into substrate
STEEL SUBSTRATE 0.55BMT	#10x16 wafer head Tek screw Minimum 3 full threads penetration

## Installation

### METHOD A: DIRECT FIXING

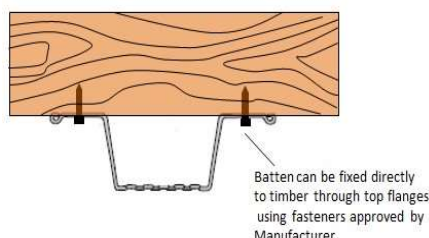
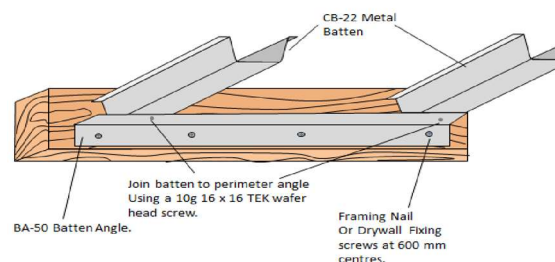
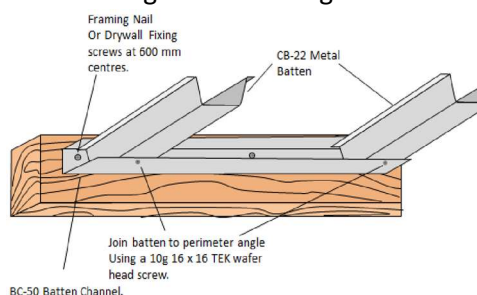
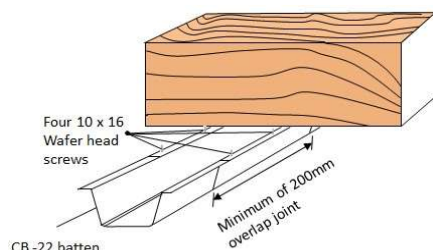


Fig-2

- Where there is no ribbon plate, fix the first batten no more than 50mm from the top plate in their longitudinal direction.
- Fix battens direct to trusses or ceiling joists using fasteners through each flange.
- When using Perimeter angle or channel, fix batten to angle using one wafer head screw.



- Join battens by overlapping battens by a minimum of 200mm directly under ceiling trusses and secure with four (4) 10-16 wafer head Tek screws. (Fig-3)



Where girder trusses are used, or the primary framing changes direction, trimmers shall be fitted to ensure the maximum spans specified are not exceeded.

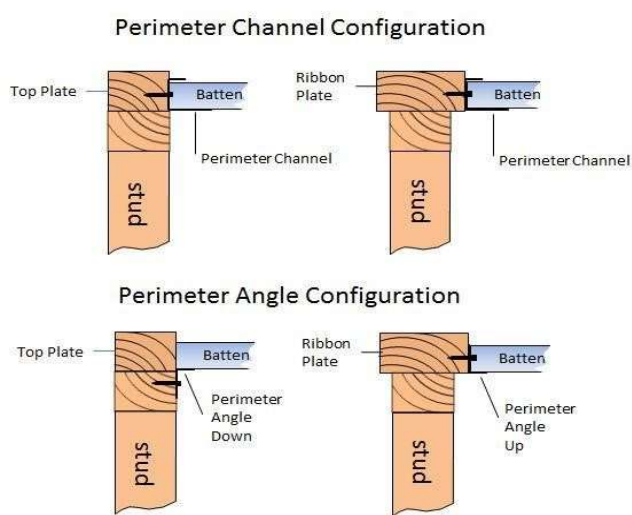
Do not join battens in end spans.

- Do not direct fix batten to the underside of trafficable floors. Ceiling battens are designed to carry the weight of the ceiling only – always use batten hangers.



## METHOD B: PERIMETER FIXING

- Perimeter channel to be fixed to top plate in line with batten spacing's.
- Perimeter channel is to be fixed to the top plate so that the long leg is to the bottom.
- Perimeter angle to be fixed to top plate in line with batten spacing.

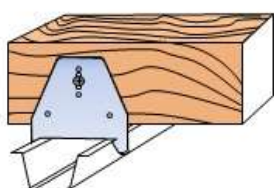


## BATTEN HANGER FIXING

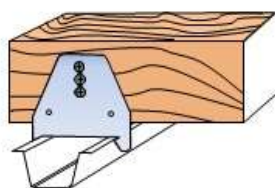
The use of Battenman Hanger plate's helps to isolate noise transmission.

- Ensure that the framing complies with the requirements of AS/NZS2589.1:1997.
- The ceiling batten hanger allows for levelling of the ceiling framing, as well as independent movement of the ceiling.
- Fix the batten hanger to the side of the truss or ceiling joist firstly by nailing or screwing through the central slot in the batten hanger.
- Adjust the batten hangers by string line or laser level until they are all level. Fix secondary nails or screws through the batten hanger after levelling and simply snap the batten into position.

- Where the ceiling is to be constructed to the underside of a trafficable floor, it is recommended that batten hangers be used.
- Leave a minimum of 10mm clear spacing between the batten and the substrate when using batten hangers.
- Supplementary bottom chord bracing may be required when fixing batten hangers.



1. Fix first screw in Adjustment slot



2. Set batten Hanger to correct height and Secure with secondary fixing

## CUTTING BATTENS

BATTENMAN® ceiling battens are manufactured from high quality Z275 Galvanised Steel. Care must be taken to not damage the protective galvanised coating, by exposing the product to excessive heat or

If cutting is required you may use any of the following:

- Tin Snips
- Hack Saw
- Drop saw with cold cut blade
- Angle grinder with cold saw blade

## CEILING LOAD LIMITS

Point loads are to be directly fixed to the ceiling batten (not to plasterboard) using appropriate expanding anchor

**BATTENMAN® CB35 POINT LOAD TABLE**

SPAN	MAXIMUM LOAD DIRECTLY ANCHORED TO BATTEN
900	25KG
1200	10KG



## CEILING MAXIMUM SPAN CHART

The following chart is supplied to be used with single thickness layer of plasterboard.

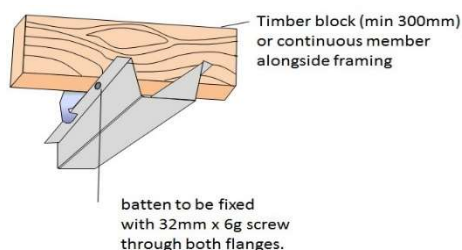
This should be read alongside Plasterboard manufacturers guidelines.

BATTENMAN® CB35 RESIDENTIAL SPAN TABLE FOR INTERNAL APPLICATION			
PLASTERBOARD THICKNESS SINGLE LAYER	MAX BATTEN SPACING	MULTI SPAN	SINGLE SPAN (UTILITY/GARAGE)
10mm	450	1200	900
13mm	600	1200	900

## DIAPHRAGM CEILINGS

BattenMan CB-35 metal batten systems may be used in ceiling diaphragms as required provided that the following conditions are met;

- The batten is either fixed directly to the underside of the ceiling framing OR
- The batten is fixed to a block or continuous member that has been securely attached to the ceiling framing with 4x90mm nails (minimum)



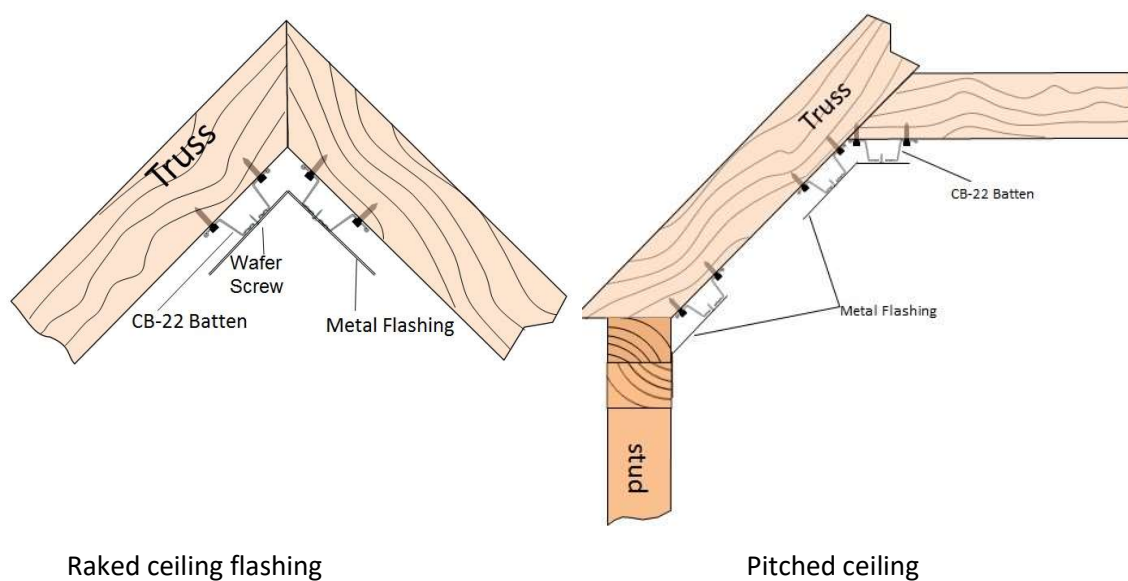
**NOTE:** It is not acceptable to install a ceiling diaphragm on batten hangers without additional support as shown in fig 8 below.

## PITCHED AND RAKED CEILINGS

Battenman CB35 System can be used in pitched and raked ceiling applications, Changes in plane can be easily achieved by attaching a folded metal angle to the junction as per the images below.

Please note:

- Minimum 0.55mm BMT.
- Fastened on each edge using 2.8mm x 30mm Nails or 32mm x 8g wafer head screws at 300mm centres.
- Plasterboard linings to be fastened to each edge of the folded angle at 150mm centres



## COMPLIANCE WITH NEW ZEALAND BUILDING CODES

### Clause B1 Structure:

The Battenman CB35 Ceiling batten system, when installed in accordance with the requirements of this manual will support the stated loads including uniformly distributed live load as per NZS 4203:1992 Table 3.4.1 for non habitable roof spaces in domestic buildings.

### G9 – Electricity

Electrical wiring to be completed in accordance of G9,

### Clause B2 – Durability

The Battenman CB35 Ceiling batten system when installed and used in normal dry non corrosive interior conditions will have a minimum service life of 50 years.

### Clause B6 – Airborne and Impact sound.

Battenman CB35 (Perimeter channel and hangar) Is compatible with the GBDFA60B intertenancy system.

### AS/NZS2589 Parts 1 & 2 : 1997

The BattenMan metal ceiling batten, as detailed in this brochure, fully complies with the following New Zealand and Australian standard:

AS/NZS2589 Parts 1 and 2:1997 for use with plasterboard and gypsum ceiling and wall linings, provided they are fitted in accordance with the manufacturer's recommendations.

## WARRANTY

The BattenMan metal ceiling batten system is warranted to be free from defects in material and workmanship. We will replace and/or repair any product found to be defective, if installed by an authorised BattenMan installer.

## SAFETY

When installing metal ceiling battens ensure that the following are observed to protect you and others on the job site.

- Cut steel is sharp—wear gloves. Always clear any swarf left from the cutting process.
- Always wear eye protection when cutting steel and when driving screws or nails. A screw/nail may
- jump off the power screwdriver or nail gun and can cause eye injuries
- Always ensure that you have a stable platform when working above ground level.
- Battens may contain traces of lubricant used in the roll forming process.
- Care should be taken when handling battens that may be slippery.
- Hearing protection should be worn when operating a nail gun.



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