SPECIFICATION & INSTALLATION GUIDE



# JSC CLIPP® BATTEN SYSTEM

## For Interior Walls and Ceilings

Version 1.4 | March 2026

JSC

PREMIUM ARCHITECTURAL
& BUILDING SOLUTIONS

featuring clip system by grad®

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Cover image: Private home Netherlands | TIM Excludsive Gardens | Supplied by Grad®

# INTRODUCTION

The JSC Clipp® Batten System is a decorative timber solution for interior walls and ceilings, offering clean lines, concealed fixings, and simple and easy installation. Using the patented Grad® aluminium rail and clip, battens can be securely clipped in place and easily removed if needed. Suitable for a range of substrates, including lined walls, timber or steel framing, and concrete, the system combines refined aesthetics with smart, practical design.

### GENERAL

This guide covers the JSC Clipp® Batten System scope of use, storage, handling, fixing, finishing and maintenance guidelines, and installation guidance for fixing to internal timber-frame, lightweight steel-frame, and concrete walls, as well as timber-framed and steel rail ceilings.

The JSC Clipp® Batten System is comprised of:

- Grad® Aluminium Rails
- Grad® Clips
- JSC timber battens

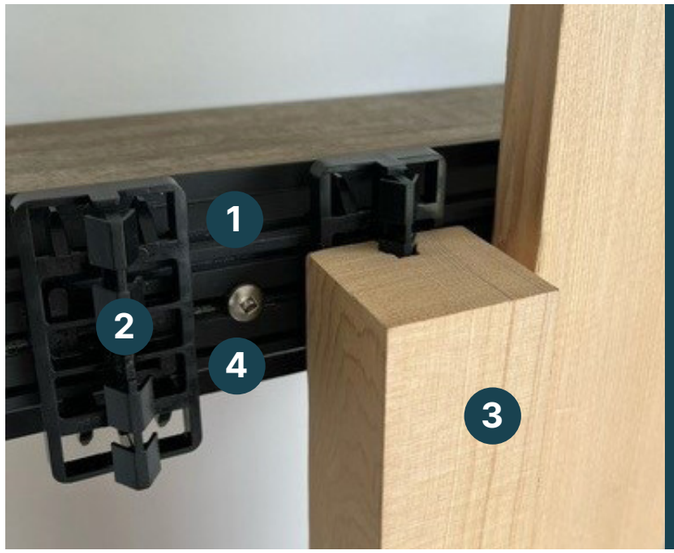
JSC timber battens are available in a range of species and profiles.

### SCOPE AND LIMITATION OF USE

The JSC Clipp® Batten System is specifically crafted for non-structural applications with low imposed forces. The aluminium rail and timber battens can be fixed to diverse substrates, and it is the responsibility of the designer to consider additional factors such as fixing bracing, seismic considerations, building movement, and adherence to relevant standards in the overall design.

The system is purely decorative and does not influence the structural or fire compliance of the space.

It is important to note that the system may not be appropriate for applications involving sports areas, playgrounds, or other environments where impact forces may occur. In such design scenarios, consultation with a structural engineer is advised for project-specific solutions.




**1 Grad® Flat Aluminium Rail**

**2 Grad® Clip**
Polyoxymethylene (POM), an engineering thermoplastic. POM exhibits outstanding dimensional stability, rigidity, and high mechanical strength

**3 Timber Batten**
Sustainably sourced timber battens

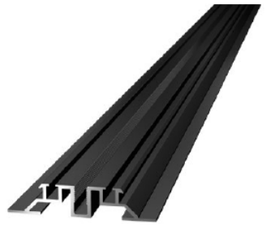
**4 Fixing**
10g x 60mm Stainless Steel (A2-50) Pan Head screw (Refer to Fixings)

Note: Interior lining and/or acoustic backing might be present but are not shown for clarification purposes.

# COMPONENTS

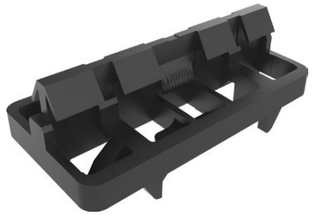
## GRAD® FLAT ALUMINIUM RAIL

| | |
|---|---|
| Material | Aluminium EN AW-6060 |
| Mass per meter of rail without clips | 0,423 kg |
| Colour | Black |
| Thermal Treatment | T6 |
| Tensile strength (MPa) | 190 |
| Tensile stress at yield (MPa) | 150 |
| Minimal elongation (%) | 6 |
| Tensile modulus (MPa) | 70000 |
| Coefficient of linear expansion (10-6/K) | 24 |
| Fusion Temperature (°C) | 585-655 |
| Thermal conductivity (W/mK) | 160 |



## GRAD® CLIP

| | |
|---|---|
| Material | Polyoxymethylene |
| Density (kg/m3) | 1410 |
| Colour | Black |
| Tensile stress at yield (MPa) | 64 |
| Fusion temperature (°C) | 190-220 |
| Tensile modulus (MPa) | 2850 |
| Coefficient of linear expansion (10-6/K) | 110 |



Grad® Clips are available pre-fixed to the aluminium rails at either 60mm or 80mm centres. For custom layouts, clips can also be supplied loose, allowing on-site installation to suit your specific batten spacing requirements.

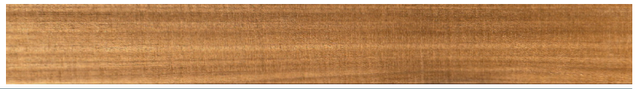
## CLIP GRIP

| | |
|---|---|
| Material | Hardened 301 stainless steel |
| Mass | 4.2 g |
| Colour | Uncoated stainless steel |
| Conditioning | 50 |
| Reference | 3142 |




Clip Grip prevents timber battens from sliding along clips and should be used in all installations.

## TIMBER BATTENS

| **Specie** | |
|---|---|
| Western Red Cedar (Thuja plicata) |  |
| Nordic Pine (Pinus Sylvestris) |  |
| Western Hemlock (Tsuga Heterophylla) |  |
| Radiata Pine (Pinus radiata) |  |
| Sambara (Triplochiton scleroxylon) |  |
| **JSC TMT Thermally Modified Species** | |
| TMT Taiga |  |
| TMT Taxon |  |
| TMT Amba |  |
| ThermoPine |  |

Note: Other timber species may be available upon request. Talk to a JSC representative about specify project requirements

- **Finishes**: Depending on the species and application requirements, timber battens can be provided dressed, bandsawn, or brushed finishes.
- **Batten dimensions**: A select range of JSC timber species are available in combinations of 40×40, 90×18, 60×18, or 40×18 battens to achieve degrees of colour, texture or uniformity to complement your design context. Custom sizes are available on request.
- **Coating options:** JSC offers factory coatings for timber battens, and can offer fire-retardant coatings for interior applications, to ensure optimal performance and safety. For advice on selecting the appropriate product and finish for your project, please contact JSC.

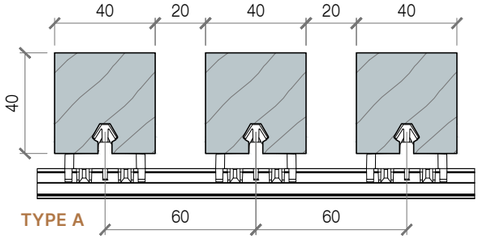
# BATTEN SELECTION

The JSC Clipp® system offers three clip spacing options:

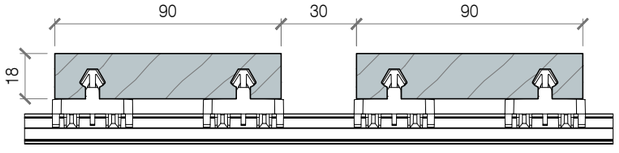
- 60mm spacing
- 80mm spacing
- Adjustable clips for custom layouts

### EXAMPLES OF POSSIBLE CONFIGURATIONS

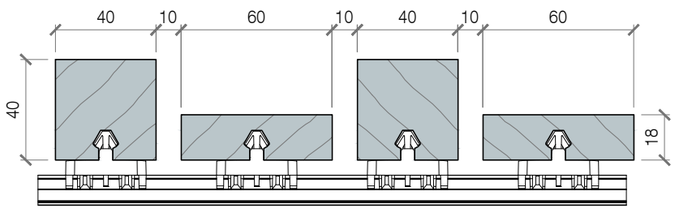
## Clips at 60mm centres - 3960mm long Rail



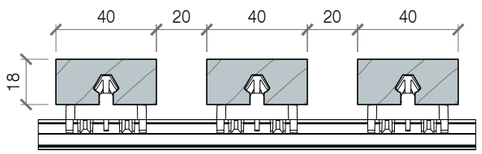

TYPE A




TYPE C

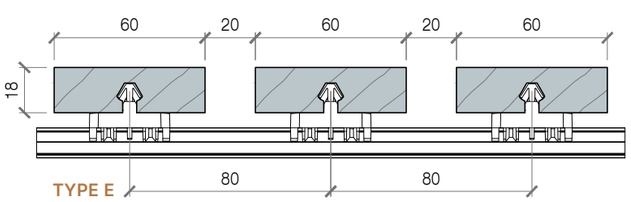



TYPE B

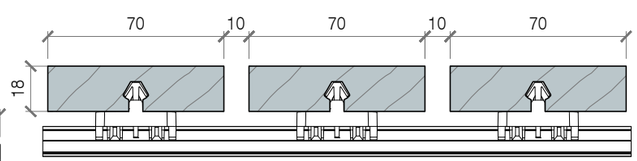



TYPE D

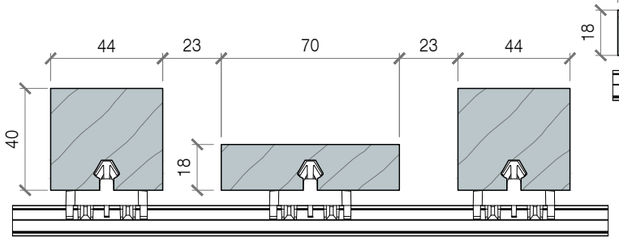
## Clips at 80mm centres - 3920mm long Rail




TYPE E




TYPE F



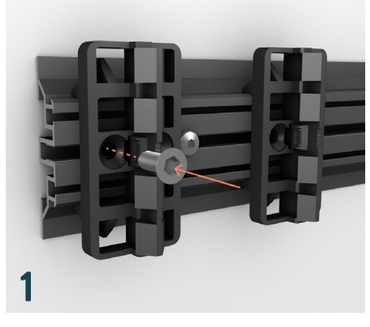

TYPE G

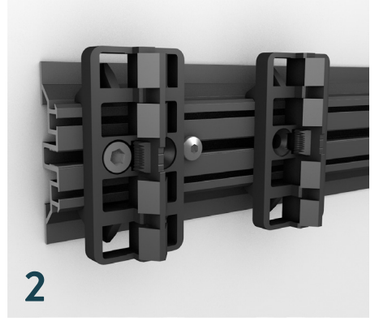
**NOTE:** Sizes may vary depending on the timber species and are subject to availability based on feedstock.



## Adjustable Clips - 3960mm long Rail

Designed to accommodate bespoke batten layouts and gap requirements through customised clip spacing. Clips are not pre-fixed to the aluminium rail and must be installed on-site.







Once positioned, the clip will be fixed in place with a M5×12 screw inserted into the central groove of the aluminium rail. When fixed to the rail, the clip can no longer be removed with the dismantling keys.

# APPLICATIONS

| WALLS | Substrate | Fixing |
|---|---|---|
| Battens can be installed vertically or horizontally. The rails must be installed perpendicular to the battens.<br>Rails to be fixed at 600mm maximum centres, or 450mm centres when using Radiata Pine, Nordic Pine, or Western Hemlock battens.<br>Walls to be max. 4m height. | Timber Frame | 10g x 60mm Stainless Steel (A2-50) Pan Head screws @600mm crs max. |
| | Lightweight Steel Frame | 10g x 45mm SDS (A2-50) Bugle Head screws @600mm crs max. |
| | Concrete (20mPa) | 10g x 50mm Stainless Steel (A2-50) Pan Head screws with Ramplug DNP08 plastic plug @600mm crs max. |

| CEILINGS | Substrate | Fixing |
|---|---|---|
| Battens can be installed direct fixed to the ceiling structure or on a Steel rail.<br>Rails to be fixed at 600mm maximum centres, or 450mm centres when using Radiata Pine, Nordic Pine, or Western Hemlock battens. | Timber Frame | 10g x 60mm Stainless Steel (A2-50) Pan Head screws @600mm crs max. |
| | Steel Rail (Rondo system)* | 10g x 45mm SDS (A2-50) Bugle Head screws @600mm crs max. |

**For suspended ceiling applications, JSC recommends consulting your suspended ceiling manufacturer. The specifications of the system are determined by the weight of the selected timber battens and the specific engineering requirements of your project.*

# PRE-INSTALLATION

### DELIVERY AND HANDLING

During transportation, it is essential to secure JSC Clipp rails in their original packaging and store them indoors before installation. Avoid storing in direct sunlight and do not place heavy objects on top of the rails to prevent damage and/or distortion.

Unload the product by hand. Never tip packets from the truck.

### STORAGE

To minimize movement after installation, timber battens should be at or slightly below the room's equilibrium moisture content. Store the timber in the installation environment for at least five days before installing to equalise moisture content. In seasonally heated buildings, materials typically have a moisture content of 10-14%.

**Note:** Radiata Pine, Nordic Pine, and Western Hemlock battens may bow or twist if unstrapped too early. Keep them strapped until installation.

### HEALTH AND SAFETY

• Wear protective clothing and safety equipment such as safety glasses, gloves, long sleeves, and a mask, particularly when cutting aluminum.

• The installer is responsible for identifying and following all building codes and construction safety practices.

• For more information refer to JSC Products - Site Health & Safety Information.

# INSTALLATION

### WALLS AND DIRECT-FIXED CEILINGS

**Preparation:**

The JSC Clipp system can be installed directly over a lined wall surface (such as plasterboard) or fixed over:

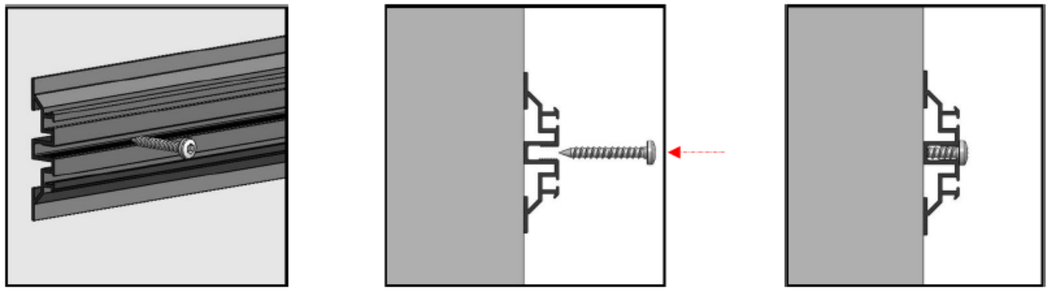
- **Timber Framing**: Verify that the substrate is within the framing tolerances specified in NZS 3604:2011. Refer to Section 8 for detailed framing requirements.
- **Concrete Substrate**: Ensure compliance with NZS 3101:2006.
- **Lightweight Steel Framing**: Ensure compliance with NASH Standard Parts 1 and 2.
- For existing buildings, ensure the primary structure is suitable for the intended building work.

**Substrate Setup:**

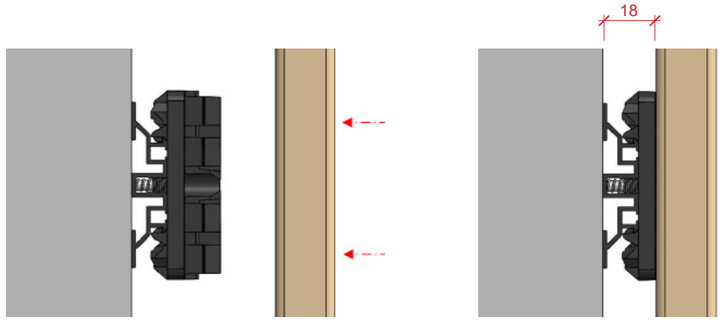
- Ensure framing members (studs for walls; joists or trusses for ceilings) are spaced at a maximum of 600mm centres.
- Timber battens should run parallel to the framing. If the structure runs perpendicular to the desired batten layout, install 70×45mm framing to provide a suitable fixing surface for the rails.

**Rail Installation:**

- Cut rails to match wall height/lengt or span of the ceiling, leaving a 6mm gap between connected rails for aluminum expansion.
- When possible, cut the rail between two clips. However, if there is a clip where the cut needs to be, remove the clip using the disassembly keys.
- Maintain maximum rail spacing of 600mm (450mm centres if using Radiata Pine, Nordic Pine, or Western Hemlock battens).
- Use a laser level or plumbline to mark a reference line.
- Ensure all subsequent rails are parallel to the first, and all clips are properly aligned. For walls, align vertically or horizontally based on batten direction. For ceilings, align perpendicular to framing.
- If installing over concrete substrate, ensure a separation layer is used between concrete and the rails.
- Pre-drill the rails and fix the rails to the substrate with the appropriate fixings.



**1. I**nstall the rails spaced at 600mm maximum. Fix the rails to the substrate. Refer to the appropriate fixings and their spacings for different substrates.




**2. I**nstall the timber battens

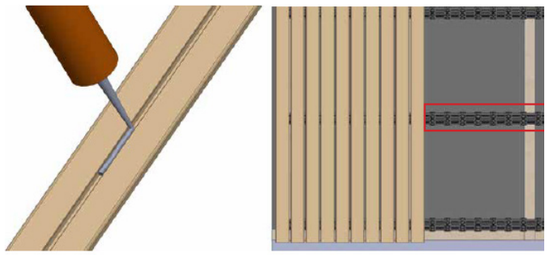
**Timber Battens Installation:**

- Begin by clipping the battens onto the rails, starting from the bottom and working your way up.
- Press the first batten by hand onto the first clips at the bottom of the rails.
- Avoid using hammers or tools that could potentially damage the batten.
- Start the second row of battens above the first row, using the next set of clips, and repeat the process for subsequent rows.
- Leave a gap of 3–5 mm between the ends of the battens and adjacent elements, such as walls, ceilings, and floors, to allow for timber expansion. This applies at termination points, not at batten-to-batten joins.

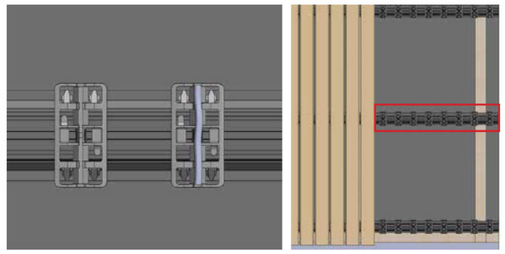
Before installing timber battens, plan the layout, confirm batten lengths and plan joins. Batten ends must meet on a rail. Where battens are joined, the ends can be machined with a tongue and groove; or connected using a dowel inserted at the joint.
In all cases where battens are joined, polyurethane wood glue must be applied using one of the following methods:

- **Method 1**: Apply a line of polyurethane wood glue in the grooves of the board (line to be the length of the clip) at the junction where the board meets the rail. This should be done on one of the rails positioned approximately in the middle of the board.

- **Method 2**: Place the polyurethane wood glue beads directly on the clip which is positioned on one of the rails located approximately in the middle of the batten.
- After completing one of these two steps, clip the battens onto the rails. All boards must be clipped to at least two rails to ensure effective fastening, except for the upper end of the roof gables.



**Method 1-** Batten joint - glue in the grooves

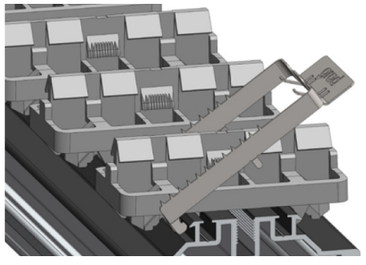


**Method 2-** Batten joint - glue on the clip

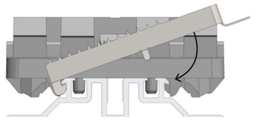
### Clip Grip

- Install Clip Grip to prevent timber battens from sliding along the clips.
- Clip Grip to be used on walls and ceiling installations.
- Install one Clip Grip per timber batten.
- Position Clip Grip in the middle of the batten.
- If the batten is positioned on only two clips, place the Clip Grip at the bottom.
- Do not place the Clip Grip under the joint of two battens.
- Note: Clip Grip does not prevent battens from being removed.

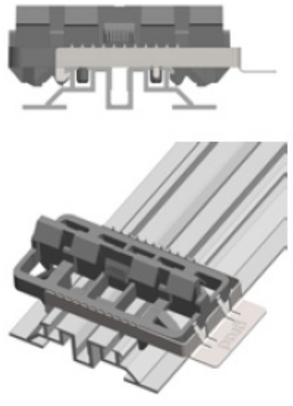
### Clip Grip Installation:



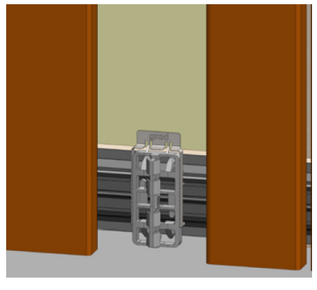
**1.** Insert the hooks into the grooves on the side of the rail. Hold the clip by the handle to avoid injury.



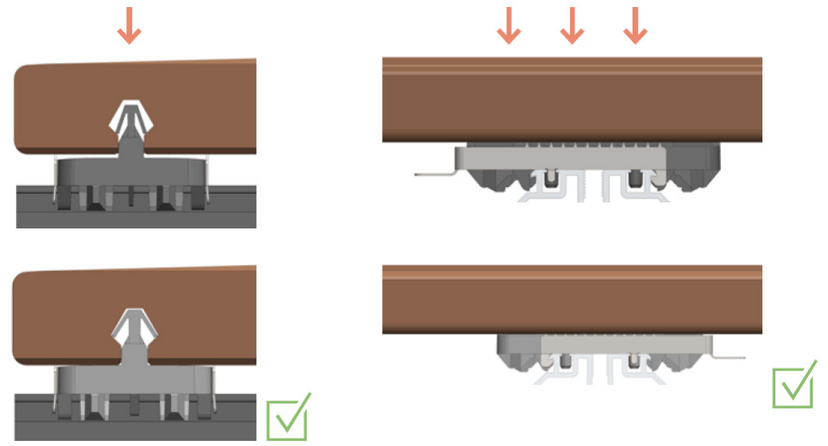
**2.** Lower the Clip Grip until the tabs lock against the clip.



**3.** Installation is complete when the Clip Grip is fully resting on the rail.



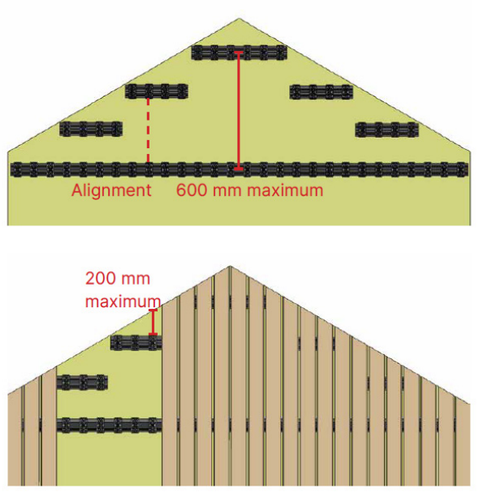
**4.** Ready to receive the timber battens



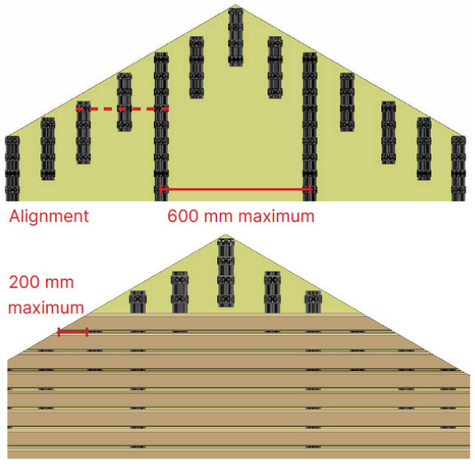
**5.** Locking timber battens in place.

**Interior Gable Walls:**

- The maximum length allowed between the edge of the outermost rail and the end of the batten is 200mm.
- Sections of the rails must be cut and positioned between the main rails to offer extra support. During the installation of these additional support rails, it is essential to ensure that the clips are aligned with those on the other rails.




**Vertical Battens on Gable wall**




**Horizontal Battens on Gable wall**

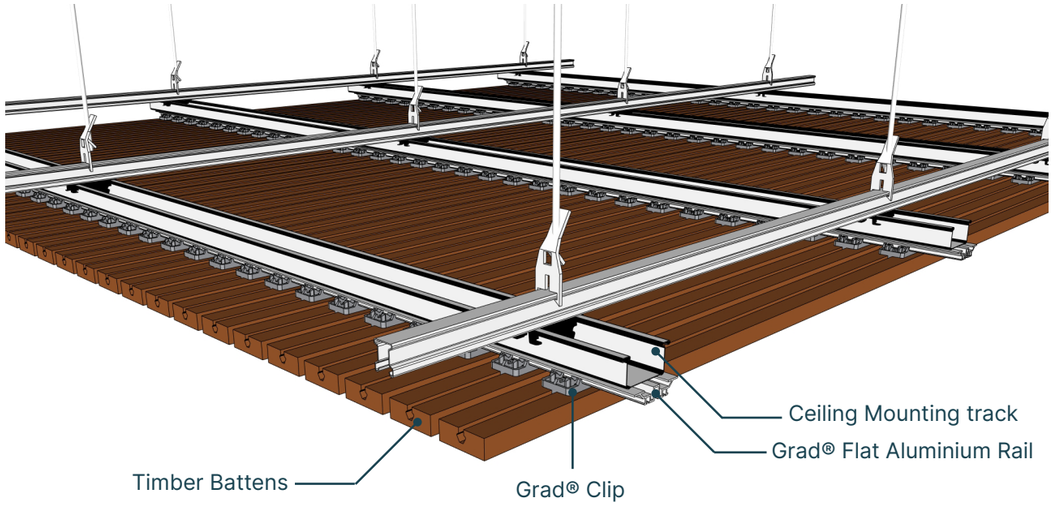
When using Radiata Pine, Nordic Pine, or Western Hemlock battens, the overhang must be reduced to a maximum of 100mm.

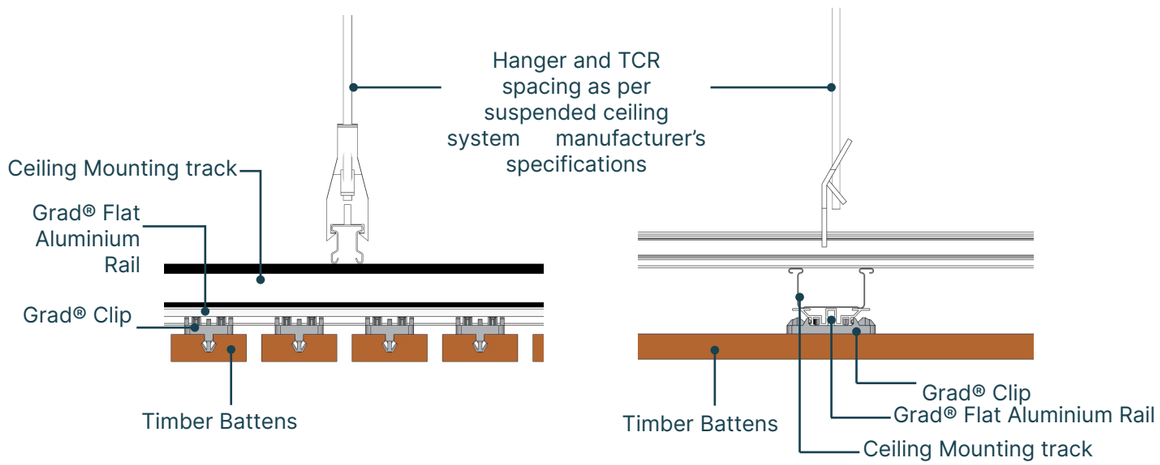
### SUSPENDED CEILINGS

For suspended ceiling applications, refer to the example below for typical setup details. Always consult with the suspended ceiling manufacturer to ensure structural compatibility.

**Rail Alignment and Installation:**

- Fix the aluminium rails to the selected ceiling mounting tracks using the appropriate fixings (refer to table on page 8).
- Maintain a maximum rail spacing of 600mm centres, or 450mm centres when using Radiata Pine, Nordic Pine, or Western Hemlock battens.
- Instructions regarding cutting the rails, positioning them, using Clip Grip, clipping on the timber battens and joining the battens if necessary are the same as for walls installations.




**Section Across Timber Battens**

**Section Along Timber Battens**

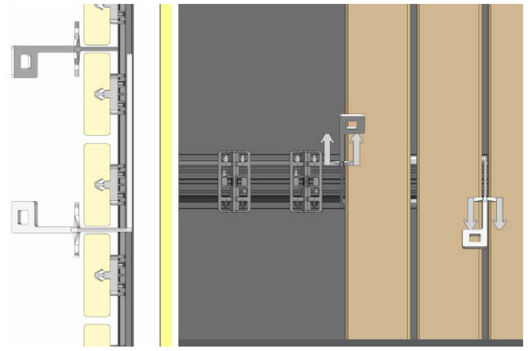


# MAINTENANCE

### REMOVAL OF BATTENS

It is possible to remove a batten and its clips with the dismantling keys.

The keys must be placed according to the diagram and slide until they are positioned between the clip and the rail. By turning in the opposite direction of the arrows, the boards can be unclipped. The space between each board must be at least 4 mm to be able to insert the keys.



### CARE AND MAINTENANCE

- Dust regularly with a soft, anti-static mop to prevent buildup.
- Wipe spills immediately with a dry cloth. For stubborn marks, use a soft damp cloth and wipe in the direction of the timber grain. Avoid scrubbing.
- Do not use detergents, chemicals, or abrasive cleaners, they can damage the timber and its coating.
- Avoid high humidity areas, as moisture can cause the timber to expand.
- Keep out of direct sunlight, excessive exposure can cause the timber to silver or fade unevenly compared to shaded areas.
- If timber battens have been coated, re-coat as per coating manufacturer's specifications.

The system is purely decorative and does not influence the structural or fire compliance of the space. Under the New Zealand Building Code, Clause C3.4(a) applies only to internal surface linings that contribute to fire compliance. As the JSC Clipp® Batten System does not alter the compliance of the underlying substrate, it does not require a material Group Number rating.

**Disclaimer:** This installation guide aims to provide comprehensive information to aid designers, builders, and owners in the effective execution of their projects. It is important to note that not all project types, design requirements, and installation scenarios are covered herein. The JSC team is readily available to help with project-specific solutions.

The product recommendations outlined in this manual serve as general guidelines, offering insights into the system's functionality. These recommendations are intended for technically competent individuals. Given the diverse nature of project-specific requirements, designers are advised to conduct all necessary engineering verification checks before installation.

Designers, builders, and owners are responsible to ensure that the information on this manual is current by referring to our website: **jsc.co.nz.**

Please be aware that JSC reserves the right to modify existing specifications and discontinue products without prior notice.

JSC's contracts are supply-only, we often lack context regarding the final product application or engineering specifications. Consequently, we cannot guarantee or be held liable for ensuring the "fit for purpose" aspect in any given project.

JSC accepts no liability or responsibility for the improper installation of this product.

JSC

PREMIUM ARCHITECTURAL
& BUILDING SOLUTIONS

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