

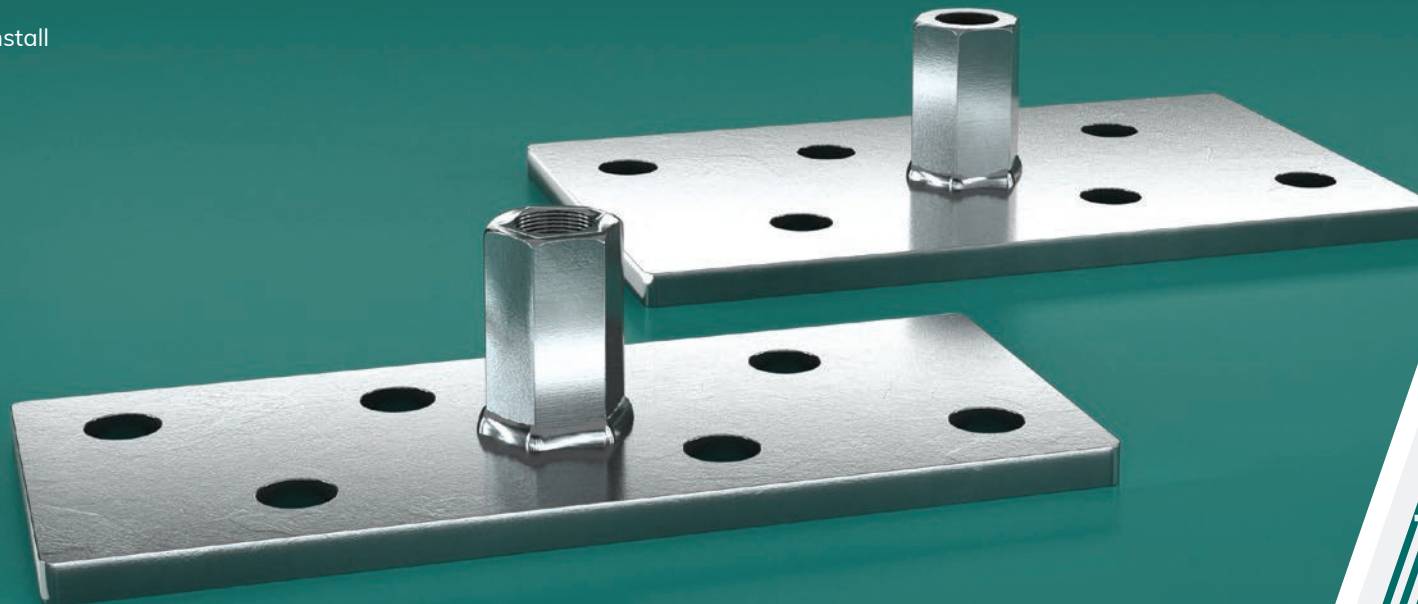
Multinail Advance Rod Tie Down Plate - LVL

This Australian-manufactured bracket solution is specially designed and tested to connect upper floor tie-down threaded rods to LVL timber beams.

Benefits of Rod Tie Down Plate - LVL

The Rod Tie Down Plate - LVL is an Australian-manufactured bracket solution, specially designed to connect threaded rods to timber beams.

- Avoids the need to drill through the entire depth of LVL timber beams
- Eliminates the need to notch out the bottom of timber beams to conceal nuts and washers
- Quick and easy to install





About Multinail

Multinail is an Australian family-owned business established for over 40 years with all its products engineered, tested and manufactured at our industry-leading facility in Queensland, Australia.

The company specialises in the provision of quality metal connectors, software and engineering services to our partner network of licensed timber fabricators. Together, we offer an industry-wide service supplying prefabricated structural systems designed and engineered for optimising the efficiency and quality of timber construction.

About Multinail Advance

Multinail Advance is an exciting addition to the Multinail Brand. Our core focus is to introduce Multinail's extensive range of products and services to new markets while innovating and developing solutions tailored to both existing and emerging sectors.

Our primary focus includes multi-residential projects, mid-rise buildings, and mass timber construction.

Multinail Advance is committed to enhancing the competitive edge of our fabricators by expanding timber construction into new markets and contributing to the growth of the Australian timber industry.



Testing

Each Multinail Advance product undergoes rigorous testing to ensure its suitability and compliance with Australian engineering codes and standards.

Specifically, the Rod Tie Down Plate LVL has undergone extensive in-house testing using LVL samples sourced from Australian suppliers. The primary objective of this testing was to validate the tie-down capacity of a pair of Rod Tie Down Plates and Multinail Advance Pan Head Screws' interactions with each structural component. Multinail Locknail plates were added to reduce the risk of LVL splitting and further improve the structural performance of the connection system.

The test results showed that Rod Tie Down Plate - LVL exceeded the benchmark value and can be an alternative tie-down method in AS1684.2 and AS1684.3 Table 9.20 where there is M12 bolt specified for a beam or lintel. Furthermore, it found no negative impact on the wall bottom plate and flooring panel during the test, due to the partial threaded screw design for the Rod Tie Down Plate.



Applications

The Rod Tie Down Plate - LVL is designed for the application of transferring the wind uplifting force through an LVL beam or lintel. It solves the issue of drilling through a deep LVL beam on site by simply attaching a pair of Rod Tie Down Plates above and below the LVL beam with Multinail Advance Pan Head Screws and Locknail plates.

The Rod Tie Down Plate kits are designed for LVL beam depths ranging from 240 to 400mm, 63 or 90mm thick.



Figure 1



Figure 2



Figure 3

No more drilling
through deep beams!



Figure 4

Design Uplift Capacity

Table 1 gives the design uplift capacities of Multinail Advance Rod Tie Down Plate - LVL. These capacities are for use as an alternative tie-down method when used with AS1684.2 and AS1684.3 Table 9.20 with M12 bolts to an LVL beam/lintel ranging from 240 to 400mm deep.

Table 1: Design Uplift Capacities in kN (values extracted from AS1684.2 & AS1684.3)

Beam/lintel tie-down connection type	Design Capacities (kN)		
	JD4	JD5	JD6
Table 9.20 (c) M12 bolt			
Table 9.20 (d) M12 bolt	20	16	12
Table 9.20 (e) M12 bolt			

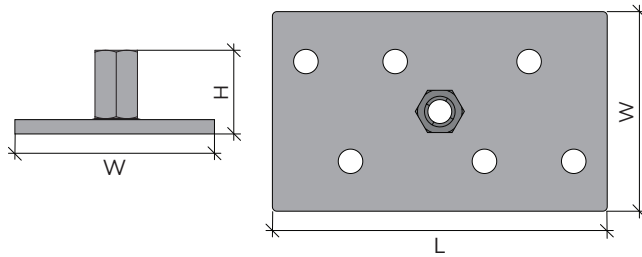
Important notes:

1. The JD group of the LVL in Table 1 shall be edge joint group of LVL. Refer to LVL manufacturers' specifications for the edge joint group information.
2. Tension perpendicular to grain capacity of timber lintel/beam needs to be checked according to AS1720.1, using the timber design properties provided by LVL manufacturers. This capacity shall govern the design if it's lower than the value provided in Table 1.
3. Minimum penetration of the screw shall be 70mm into the LVL beam/ lintel, to ensure the design uplift capacities in Table 1. This means the distance between LVL edge to bottom of the Rod Tie Down Plate cannot exceed 74mm.

Technical Specifications

Rod Tie Down Plate - LVL

Steel
G350 Steel, Zinc Plated, 6mm Thickness

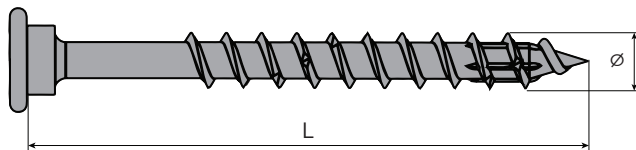


Product Code	Description L x W x H
RTLVL63-P	150mm x 63mm x 36mm
RTLVL90-P	150mm x 90mm x 36mm

This product can only be purchased as part of the kit.

Screws

Steel
Hardened carbon steel, Electrocoated



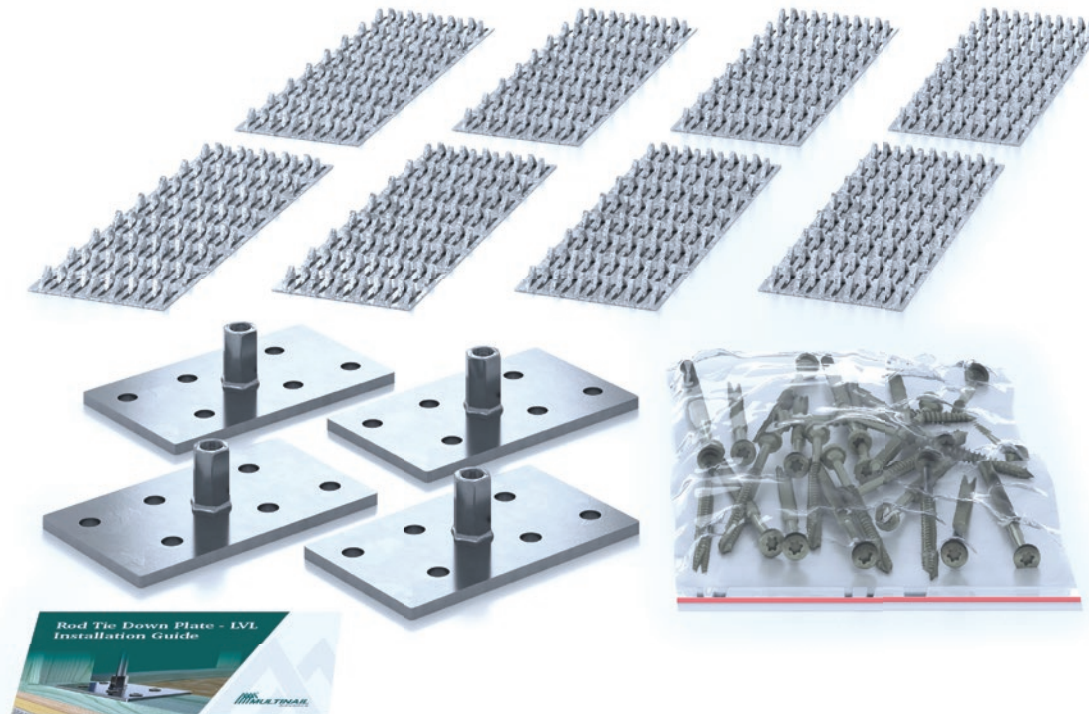
Product Code	Description Ø x L	Carton Qty
CH08150-25	Ø8x150mm	25

This product can only be purchased as part of the kit.

Kit Contents

Table 2: Kit Content

Kit code	Rod Tie Down Plate - LVL	150mm long Screws	Locknail Plate	Installation Guide
RTLVL63	4	25	8	1
RTLVL90	4	25	8	1





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