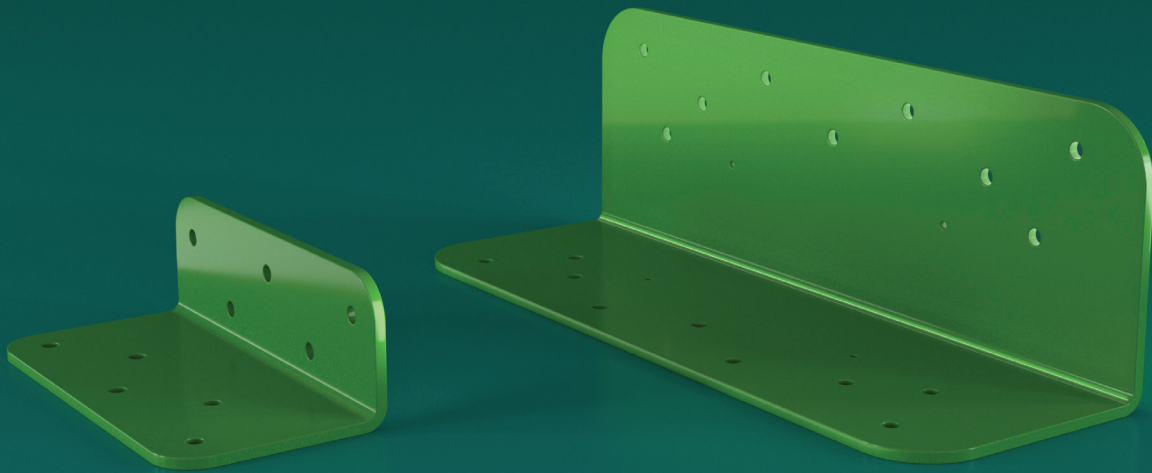


# Multinail Multi Angle Bracket



Universal steel connector designed to support the structural joining of timber framing in roofs, walls, ceilings and floors.

## Benefits of Multi Angle Bracket

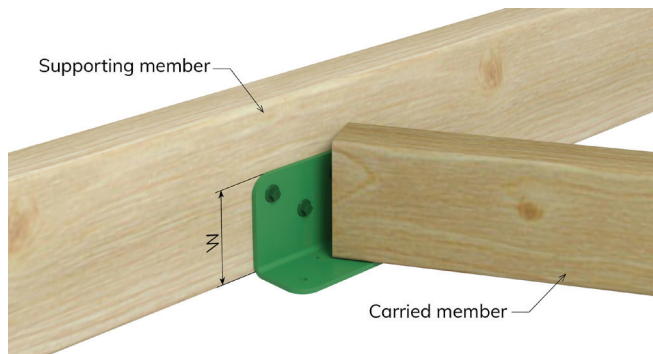
Versatile bracket solution formed from prime quality powder coated steel to support structural members designed on an angle.

- Provides universal solution for supporting the fixing of joists to beams at a variety of angles
- Simplifies the fixing of trusses to girders at multiple angles
- Quick and easy to install
- Made in Australia

# Installation

## Supporting at an Angle

- Fix Multi Angle Bracket to the beam or girder truss using Green Tip screws.
- Ensure that the supporting member is a minimum of 35mm wide.
- If necessary, notch out the bottom of the carried member by 5mm.
- Secure the notched member to the Multi Angle Bracket using a 1/35mm x counter-sunk screw from underneath.



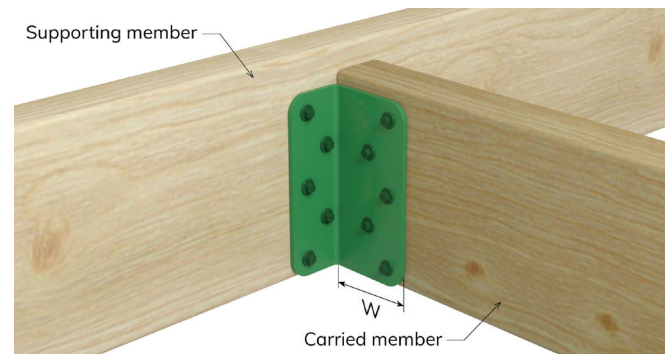
**Figure 1:** Supporting at an Angle

### Notes:

1. All holes in the Multi-Angle Bracket should be filled with Green Tip screws to attach it securely to the supporting member.
2. Pre-drill holes for hardwood before installing screws.
3. Avoid over-tightening the screws.

## Right Angle Support

- Connect the members together at a right angle.
- Fix Multi Angle Bracket using Green Tip screws in each member.
- Ensure an adequate end distance by fixing the long edge to the carried member.



**Figure 2:** Right Angle Support

### Notes:

1. Fill all holes in the Multi-Angle Bracket with Green Tip screws.
2. Pre-drill holes for hardwood before installing.
3. Avoid over-tightening screws.
4. The MNMAB-150 with the longer side W (75mm) should be affixed to the carried member, as shown in Figure 2.
5. If a pair of Multi Angle Brackets is used on both sides of a carried member with a thickness greater than 70mm, the capacities outlined in tables 1 and 2 may be doubled.

# Limit State Design Loads

**Table 1:** Limit State Design capacities for MNMAB-150

Number Screws	Joint group	Capacity (kN) for MNMAB-150				
		Dead load	Dead load + Floor LL	Dead Load + Roof LL	Dead Load + Wind Load	DL +WL for 1 screw from underneath
5	JD3	8.6	10.4	11.6	17.3	2.5
	JD4	6.1	7.4	8.2	12.2	1.9
	JD5	4.3	5.2	5.8	8.6	1.5

**Table 2:** Limit State Design capacities for MNMAB-300

Number Screws	Joint group	Capacity (kN) for MNMAB-300				
		Dead load	Dead load + Floor LL	Dead Load + Roof LL	Dead Load + Wind Load	DL +WL for 1 screw from underneath
9	JD3	17.0	20.5	22.9	24.6	2.5
	JD4	12.0	14.6	16.2	24.0	1.9
	JD5	8.5	10.3	11.5	17.0	1.5

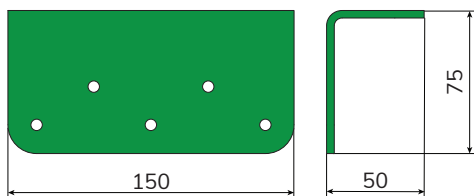
**Note:**

Limit state design capacities are obtained from laboratory testing and derived from AS1720.1 for houses where failure is unlikely to affect an area greater than 25m<sup>2</sup>. For primary elements in structures other than houses or elements in a house for which failure would be greater than 25m<sup>2</sup> these capacities must be multiplied by 0.94. For primary joints in essential services or post disaster buildings multiply by 0.88.

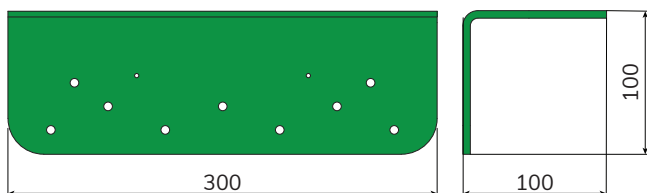
## Technical Specifications

**Steel** Minimum G250 Steel, Powder Coated, 4mm Thickness

**MNMAB-150**



**MNMAB-300**



## Description and Packing

Product Code	Description	Carton Qty	Carton kg.
MNMAB-150	75 x 50 x 150 x 4mm	1	0.5
MNMAB-300	100 x 100 x 300 x 4mm	1	1.7

Fixings	
TA221	35mm Green Tip screw
TA222	65mm Green Tip screw



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