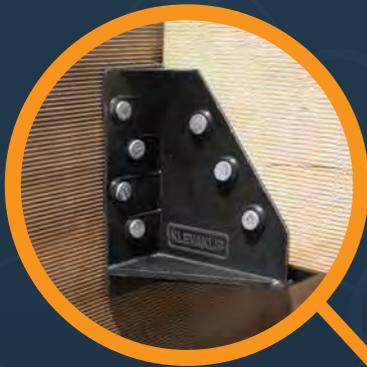


KlevaKlip Engineered Building Products

Making Deck Building Easier!



FREP

The outdoor joist hanger



Adjustable Joist Support

For decks over concrete slabs

KLEVAKLIP[™]
ENGINEERED BUILDING PRODUCTS



Adjustable Bearer Support

For use with decks 300mm to 600mm
off the ground



Joist Connector

The positive connection
between joist and bearer



FREP JOIST HANGER

THE OUTDOOR JOIST HANGER

- Molded from Fibre Reinforced Engineering Polymer (FREP)
- Corrosion proof
- Strong - engineered to last
- No sharp edges
- Paintable
- Easier to use than conventional joist hangers
- Vibration resistant nail holes
- 15 year warranty
- Ventilation ridges for joist breathability
- Meets Australian standards for decking/flooring
- Patented design

NJH9045 and NJH14045 FREP Joist Hangers

Important: Use only 35mm long x 3.15 diameter galvanised connector nails or stainless steel equivalents. When fixing the **FREP** Joist Hangers to Bearers-NJH9045 there should be four nails in each "wing" of the Joist Hanger (Total 8) and three nails per side of each joist at each joist hanger (Total 6). NJH14045 there should be six nails in each "wing" of the Joist Hanger (Total 12) and five nails on one side and four on the other side of the joist hanger (Total 9). Please use connector nails in ALL holes provided for both the NJH9045 and NJH14045.

*Nail guns are not to be used on **FREP** Joist Hangers.*

Load bearing

All load bearing tests have been done by an independent, accredited testing body to Australian Standards AS1170.0 and AS1170.1

Important

- ✓ Do not use in a cantilever situation.
- ✓ Not recommended for bush fire zones.
- ✓ **FREP** Joist Hanger softening point 180 °C and melting point is 220 °C.
- ✓ Do not use Nail guns on **FREP** Joist Hangers.



Timber Joint Group	NJH9045	
	Floor	Deck/Balcony
JD5 <small>(equivalent to MGP10)</small>	0.8	0.6
JD3 <small>(equivalent to F17 LVL)</small>	1.2	0.9

Timber Joint Group	NJH14045		
	Floor	Deck/Balcony	Commercial
JD5 <small>(equivalent to MGP10)</small>	1.2	0.9	0.5
JD3 <small>(equivalent to F17 LVL)</small>	1.6	1.2	0.7

Notes:

1. Maximum floor area (M2) = 0.5 x (joist span x joist spacing)
2. Span tables should be read in conjunction with timber span and joint tables to ensure the size and grade of joist you use is adequate for the proposed span.
3. "Floor" load based on Live load of 1.5kPa + Dead load of 0.5kPa
4. Deck/Balcony load based on Live load of 2kPa + Dead load of 0.5kPa
5. Commercial load based on Live load of 4kPa + Dead load of 0.5kPa
6. To achieve the structural design capacity, it is essential that the joists and joist hangers be installed in strict accordance with the fixing details provided.
7. For further details regarding Maximum floor area (M2) please refer to our web site.





ADJUSTABLE JOIST SUPPORT

FOR DECKS OVER CONCRETE SLABS

- Keeps your joists off the concrete and free of unwanted moisture ingress. This prevents joist-rot through the bottom of your joists.
- Is ideal for use on area where the concrete has built in "fall" - to provide a level deck.
- Quick and easy to use - purpose-built for the application.
- Gives a neat, professional look across your deck structure without resorting to various different packers and brackets to achieve your end result.
- Height of the deck is determined by the length of bolts used.



Each Adjustable Joist Support requires

2 x Galvanised M10 hex head bolts,
4 x nuts, 2 x flat washers and
1 x 12mm Dynabolt, 10mm masonry bolt or similar.
All purchased separately from your hardware store.

Adjustable Joist Support

The Adjustable Joist Support has been designed specifically to enable decks to easily be built over concrete slabs in areas where limited ground clearance is available. It is ideal for use when the step-down from the house to the concrete slab is between 100mm (min) and around 220mm.

The Adjustable Joist Support designed to be used with 45mm wide treated pine joists - the cradle of the joist hanger is 46mm wide x 100mm long x 65mm high. It can be used with other types of joists if they are the right thickness.

The adjustable joist supports come in boxes containing 24 joist hangers and 24 base plates.

What length bolts are required?

(All measurements based on using Galvanised Zenith brand long-threaded bolts)

Hex Head Bolt Length	Min Height to Bottom of Joist	Max Height to Bottom of Joist	Min Height to Top of 70/90 mm Joist	Max Height to Top of 70/90/140 mm Joist
60 mm	16 mm	20 mm	86/106 mm	90/110/160 mm
120 mm	18 mm*	80 mm	88/108 mm*	150/170/220 mm
No Bolt**	6 mm		76/96 mm	

* If using long bolts at low heights, to prevent the bolts protruding past the top of joist, the end of the bolt will need to be cut off.

** When using Joist Support only.

Further information

The Adjustable Joist Support has been manufactured to meet deck load bearing standards as per Australian Standard AS1170-1 and Australian hot dipped galvanising standards AS/NZS 4680:2006

Span table for base-plate positioning

	Recommended Span (mm)	Maximum Span (mm)
70 x 45 MGP10	800	1200
90 x 45 MGP10	1000	1500
*120 x 45 MGP10	1200	1800
*140 x 45 MGP10	1200	1800

All based upon "continuous span" with joists at 450mm between centre's.

* Joist span limited by lateral loading on bolts

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JOIST CONNECTOR

THE POSITIVE CONNECTION BETWEEN JOIST AND BEARER

- Molded from Nylon 6 Engineering Polymer – strong, tough, good UV stability.
- No longer is the joist/bearer interface the weakest connection in your deck.
- Keeps your joists dry and prevents moisture-initiated degradation of joists and bearers caused by skew nailing.
- Allows you to lay out joists standing in position, simply (gun) nail them off in one operation.
- Unlike Triple-grip type products, the Joist Connector allows fixing to and stabilizes both sides of your joists to your bearer.
- Helps prevent long term squeaking problems when used on internal floor joists.
- Will not rust – can be used in any harsh environment.
- Fix with gun-nails, manual nails or screws.
- Aesthetic design – looks good when the underneath of your deck or pergola is exposed.
- Can be painted without problems of paint adherence.

Product	Size / Fit
JC9045N	To attach 45mm width joist to 90mm width bearer
JC7045N	To attach 45mm width joist to 70mm width bearer
JC4545N	To attach 45mm width joist to 45mm width bearer

Fixings required

Joist connector to bearer

2 fixings on each side of bearer

Cyclone areas C1 and C2 – 3 fixings per side of bearer (not suitable for areas C3 and C4)

Joist connector to joist

Less than 1 metre off the ground –

1 fixing per side of joist

Higher than 1 metre off the ground –

2 fixings per side of joist

Cyclone areas C1 and C2 – 3 fixings per side of joist (not suitable for areas C3 and C4)

Approved fixings

35 x 3.15mm timber connector nails

32 x 2.7mm hot dipped galvanised coil nails or equivalent (not suitable in cyclonic areas)

35mm x 8g galvanised stitching screws (not suitable in cyclonic areas)

Note – stainless steel equivalents of the above should be used in high corrosion areas.



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ADJUSTABLE BEARER SUPPORT

FOR USE WITH DECKS 300MM TO 600MM OFF THE GROUND

- Quick and easy to use when setting height of your bearer.
- Ideal for use on areas where the ground has a "fall", to provide a level bearer height.
- Provides a "bottom of bearer" height from *160mm to 290mm.
- Heavy duty and fully hot dip galvanised ensures long life-span without failure. Locking nuts ensure absolute rigidity.
- Easily used with 70mm, 90mm or 45-50mm width bearers of various heights.
- Variety of uses include the building of ramps, stairs, post supports.
- Can be used to prop up existing bearers or floor joists that have sagged over a period of time.

Further information

All information in span tables relate to load bearing of 3.5 KPa as per Australian Standard AS1170-1. The Adjustable Bearer Support has been hot dip galvanised to standards AS/NZS 4680:2006



*Note: The product has a supplied lowest height of approx 175mm. In order to achieve 160mm, the bottom 15-20mm of the threaded rod needs to be cut off.

Span table

To be read in conjunction with Bearer (Timber) span tables. In some instances the placing (distance between bearer supports) of the Adjustable Bearer Supports will be limited by the span capabilities of the actual bearer itself.

MAXIMUM LOAD AREA (M²)

Bearer Width	Bearer Support Height (Mm)	2 Span Continuous	3 Span Continuous
70mm	290	3.2	3.6
70mm	230	4.1	4.7
70mm	160	4.6	5.2
90mm	290	2.2	2.5
90mm	160	3.5	4.0
45-50mm**	290	3.2	3.6
45-50mm**	160	4.6	5.2

** When using 45 or 50mm bearers, in order to achieve the above load areas, the bearer must be packed out from to "L-bracket" to ensure the centre of the bearer is directly above the centre of the bearer support column.

Installation

Adjustable Bearer Supports should always be fixed with 2 x 12mm dynabolts, 10mm masonry bolt or similar to ensure strength and stability of base.

Base plates are recommended to be placed at 90 degrees to the adjacent base plate to provide best possible lateral stability in all directions. This is critically important if building a free-standing deck (i.e. not attached to any fixed structure – eg house).

Locking nuts should be fully tightened at all times. This is especially important when the thread is wound out near its maximum height.

Do not wind the Adjustable Bearer Support higher than 290mm to the bottom of bearer height.

Note: On a free-standing deck (i.e. not attached to a fixed structure), regardless of bearers meeting span requirements, a minimum of six (6) Adjustable Bearer Supports should be used.

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