



KlevaKlip FREP Joist Hanger

FREP (Fibre Reinforced Engineering Polymer)

Play Installation DVD at www.klevaklip.com.au

Installation Steps for NJH9045 & NJH14045 FREP Joist Hangers

Important Notes: 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)

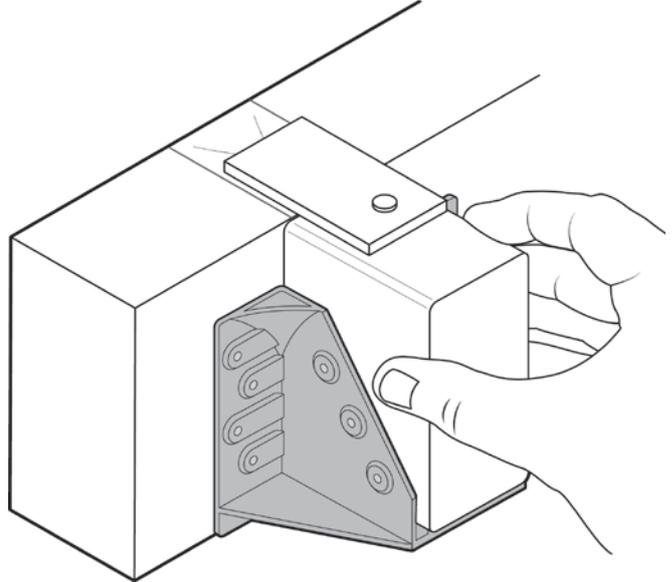
NJH14045 there should be six nails in each "wing" of the Joist Hanger (Total 12) and five nails on one side and four on the other side of the joist hanger (Total 9)

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.

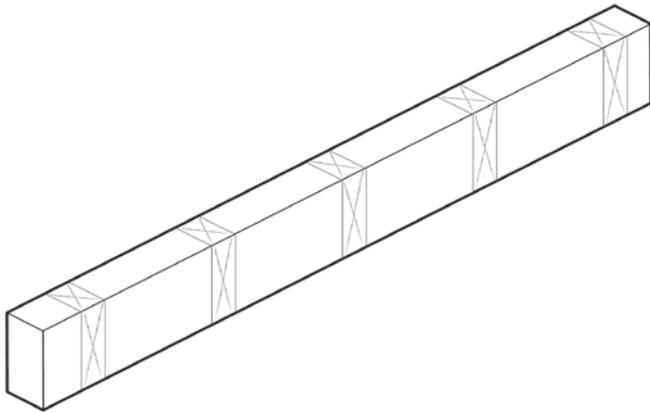
Step 3 – Attach FREP Joist Hanger to Bearer

Insert the Joist Hanger into the "Jig" and place in required position against the bearer ensuring the hanger is sitting at the correct height to the bearer.



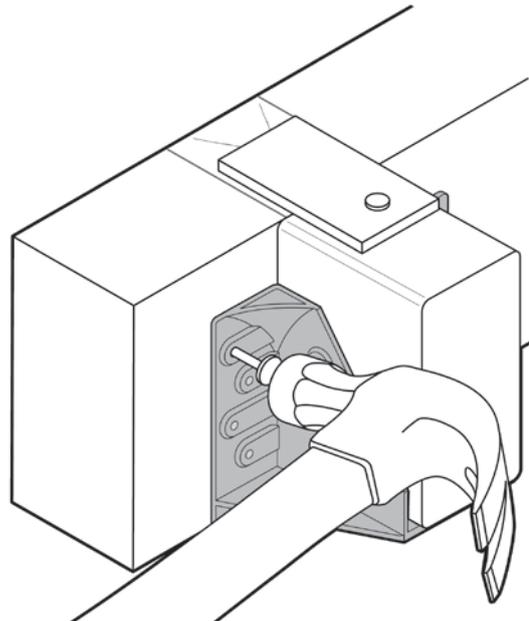
Step 1- Positioning of the FREP Joist Hangers

Check span tables at the end of these instructions to ensure bearers are spaced within recommended maximum distance for the hanger to still meet Australian Standards for relevant kPa ratings. Mark out positions for where the joist hangers will be attached to the bearers.



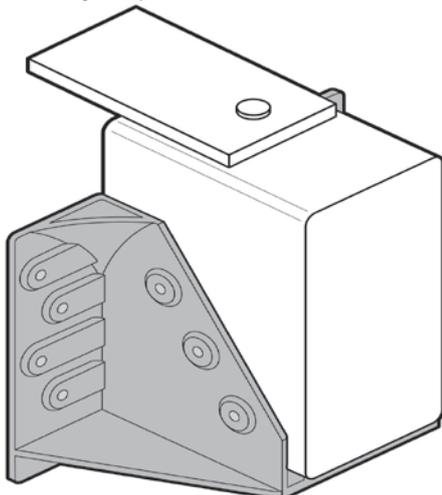
Step 4 – Attach Connector Nails

Attach to top left and right hand connector nails of the hanger to the bearer.



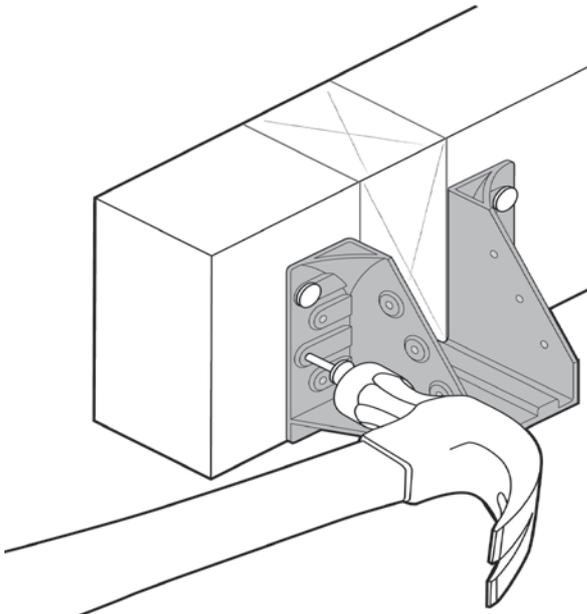
Step 2 – Set up a small "Jig"

FREP Joist Hangers are "sprung" slightly inwards during manufacture. When fixing the hangers to the face of your bearers, it is important to sit a small section of joist (say 40mm long) in the hanger to ensure the sides of the hanger are set to the correct width of joists to be used when attached. Good practice is to nail a small piece of thin ply wood or similar to the top of this small section of joist. This "jig" makes it easy to set the hangers at the correct height to your bearer.



Step 5 – Remove “Jig”

Once both top left and right hand connector nails are in place remove the “Jig” and insert the remaining nails to attach the hanger to the bearer –
 NJH9045 there should be four connector nails in each “wing” of the joist hanger (total 8).
 NJH14045 there should be six connector nails in each “wing” of the joist hanger (total 12).



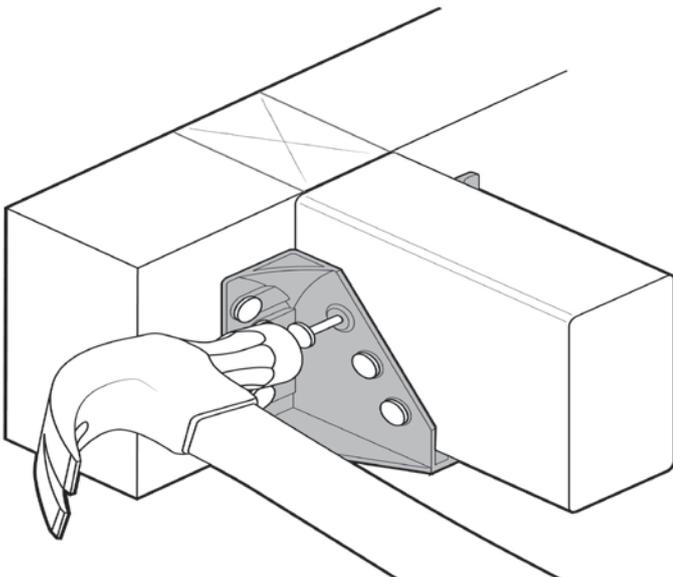
Step 6 – Install Remainder FREP Joist Hangers

Repeat process for the remaining FREP joist hangers.

Step 7 – Insert Joists in FREP Joist Hangers

Cut Joists approximately 1mm less than the distance between the bearers, then insert joists into hangers. Double-check that height of joists are correct before nailing off joists.
 NJH9045 use three connector nails per side of each joist at each joist hanger (total 6).
 NJH14045 use five nails on one side and four on the other side of the joist hanger (Total 9)

Also it is good practice to brace the opposite side when nailing into the joist



Other Important Notes:

- ✓ Tight fitting joists between the bearers can result in joist squeak as the joist flexes under load.
- ✓ 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
- ✓ Check Timber manufacturer guide on treatment to end grain on cut timber.
- ✓ Do not use Nail guns 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

Maximum Floor Area (m2) for FREP Joist Hangers

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

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

Notes to the above:

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.