

# Creeper Connector

## FOR FIXING JACK TRUSS TO HIP TRUSS

CreeperConnectors are available in two forms, CC200 for 0 to 12.5° pitch chords, which is suitable for both left and right hand configurations, and CC200L and CC200R for 15 to 25° pitch chords, which are left and right hand configurations respectively.



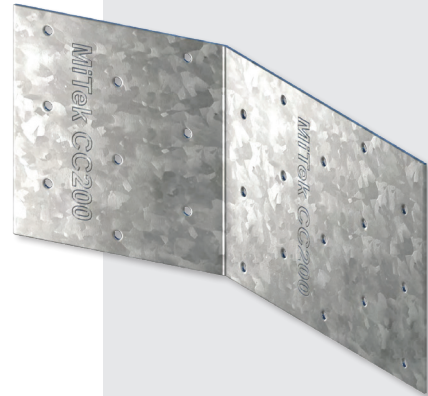
For durability information, please refer to **Corrosion Resistance of MiTek Metal Connectors**, available on the MiTek website at [mitek.com.au](http://mitek.com.au)

### USE

- CreeperConnectors have been designed to connect jack trusses to hip trusses.

### ADVANTAGES

- CreeperConnectors are metal plates pre-punched to accommodate nails and bent to suit roof pitches up to 25°.
- CreeperConnectors may also be used to connect half trusses or cut-off trusses to boomerang girder trusses.

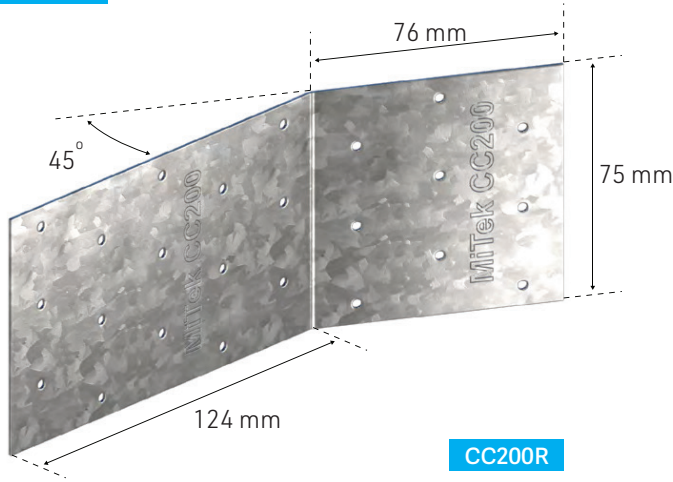


### SPECIFICATIONS

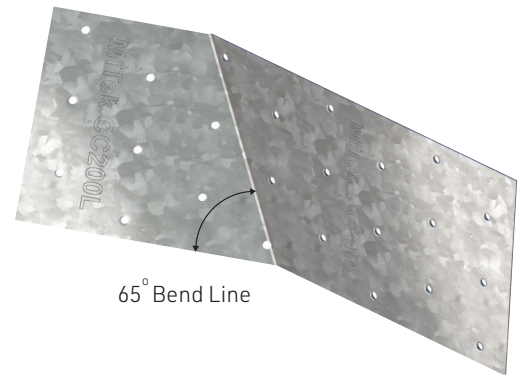
Steel Grade	G300		
Thickness (Total Coated)	1.0mm		
Galvanised Coating	Z275		
Nails	MiTek 30 x 2.8mm hot dip galvanised reinforced head		
Product Code	CC200	CC200B	75 x 200mm
	CC200L	CC200LB	75 x 200mm
	CC200R	CC200RB	75 x 200mm

This Certified Engineering Building Product complies with the National Construction Code and Australian Standards.

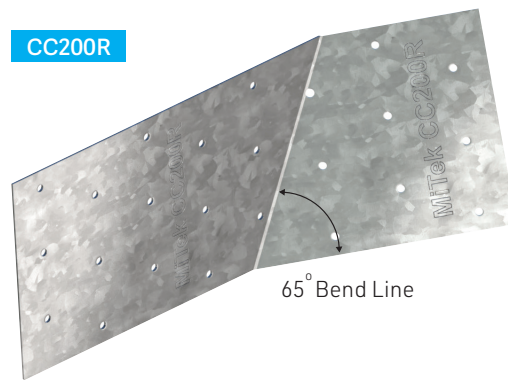
**CC200**



**CC200L**



**CC200R**



## LOAD DATA

The design capacities of a CreeperConnector for different timber joint groups are listed in Table 1. These capacities

Limit State Design Capacity per Connector (kN)				
Table 1	Joint Group	DL Only	DL + Roof LL	DL + WL
	JD2	3.0	4.1	6.0
	JD3	3.0	4.1	6.0
	JD4	2.3	3.2	4.6
	JD5	1.8	2.5	3.6

Values in table incorporate the Category 1 capacity factor ( $\phi$ ) for houses. For other categories, multiply the design capacities by the following factors. Refer to AS1720.1 for a full definition of each category.

Design capacities have been obtained from laboratory testing and procedures given in AS1720.1.

Category	1	2	3
Adjustment factor	1.00	0.94	0.88

## MAXIMUM TRUSS SPAN

Table 2 is recommended when connecting CreeperConnectors to truss top chords only.

Maximum Truss Span for Type A Connection (m)							
Joint Group	Wind Classification						
	N2	N3	N4	N5	C1	C2	C3
<b>Sheet roof &amp; plaster ceiling (40kg/m<sup>2</sup>) @ 900mm centres and 25° roof pitch</b>							
JD2	13.9	13.9	8.5	5.4	8.7	5.5	3.6
JD3	13.1	13.1	8.1	5.2	8.3	5.2	3.4
JD4	10.0	10.0	6.1	3.9	6.3	3.9	2.6
JD5	7.9	7.9	4.8	3.1	4.9	3.1	2.0
<b>Concrete tile roof &amp; plaster ceiling (90kg/m<sup>2</sup>) @ 600mm centres and 25° roof pitch</b>							
JD2	10.3	10.3	10.3	9.6	10.3	9.8	6.0
JD3	9.8	9.8	9.8	9.2	9.8	9.3	5.7
JD4	7.4	7.4	7.4	6.9	7.4	7.0	4.3
JD5	5.8	5.8	5.8	5.4	5.8	5.5	3.4

Table 3 is recommended when connecting CreeperConnectors to both truss top and bottom chords.

Maximum Truss Span for Type B Connection (m)							
Joint Group	Wind Classification						
	N2	N3	N4	N5	C1	C2	C3
<b>Sheet roof &amp; plaster ceiling (40kg/m<sup>2</sup>) @ 900mm centres and 25° roof pitch</b>							
JD2	16.0	16.0	12.8	8.2	13.1	8.3	5.4
JD3	16.0	16.0	12.8	8.2	13.1	8.3	5.4
JD4	16.2	16.0	9.8	6.3	10.0	6.3	4.1
JD5	12.6	12.5	7.6	4.9	7.9	5.0	3.2
<b>Concrete tile roof &amp; plaster ceiling (90kg/m<sup>2</sup>) @ 600mm centres and 25° roof pitch</b>							
JD2	15.4	15.4	15.4	14.5	15.4	14.7	9.0
JD3	15.4	15.4	15.4	14.5	15.4	14.7	9.0
JD4	11.8	11.8	11.8	11.1	11.8	11.3	6.9
JD5	9.2	9.2	9.2	8.7	9.2	8.8	5.4

**NOTE:** The values in tables 1 and 2 are applicable for housing applications only, and include 3/75mm nails through top and bottom chords in all cases.

CreeperConnectors can be used to fix both single and double mitred jack/cut-off trusses to hip/boomerang girder trusses.

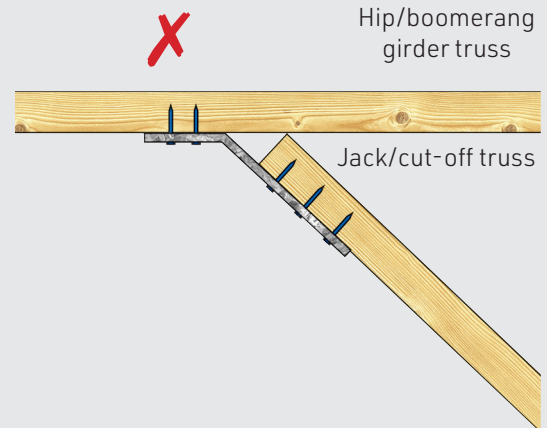
CreeperConnectors can also be used wherever a mitre plate is specified in AS4440.

Always fix the shorter leg of a CreeperConnector to the hip/boomerang chord and the longer leg to the jack/cut-off chord.

CreeperConnectors are to be fixed using 30 x 2.8mm MiTek galvanized reinforced head nails as specified for each type of fixing, in addition to 3/75mm flathead nails fixed directly through the chords.

## SQUARE CUT

Square cut ends on chords are not recommended



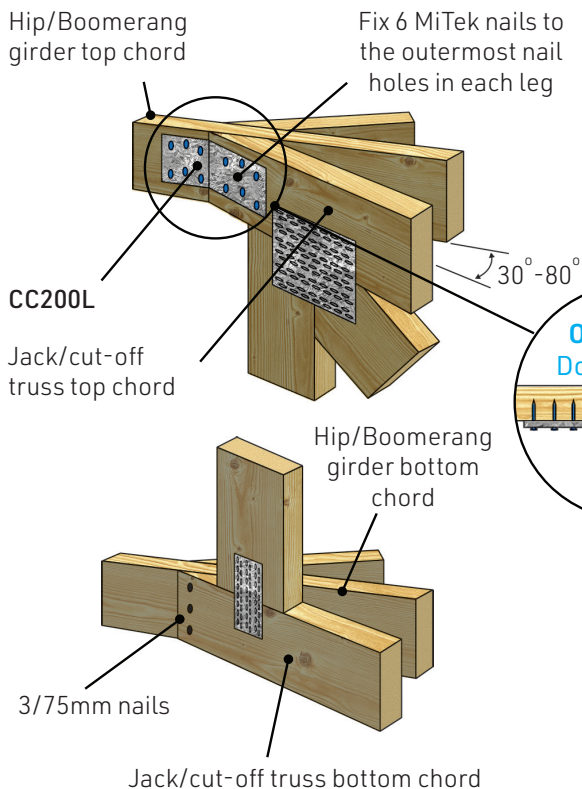
## Notes

1. A Type A Connection has a CreeperConnector fastened to the truss top chords and 3/75mm nails through the truss bottom chords as shown below.
2. A Type B Connection has CreeperConnectors fastened to both truss top and bottom chords as shown below.
3. Beneath each CreeperConnector are 3/75mm framing nails not shown in drawings for clarity.

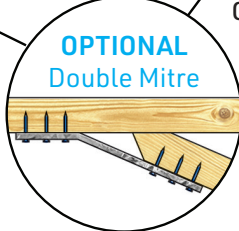
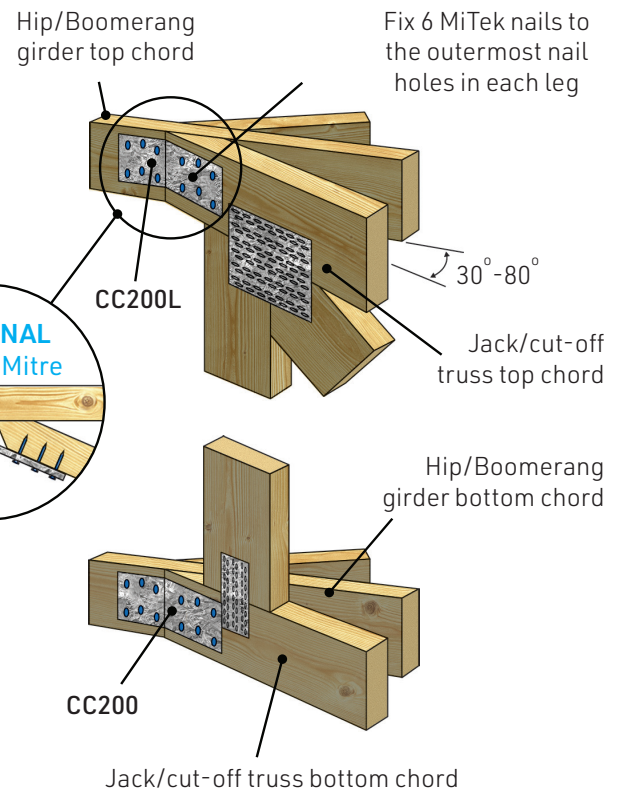
## SINGLE FOLD FIXING METHOD

Suits single or double mitred jack/cut-off truss with skew angle from 30° to 80°.

### TYPE A CONNECTION



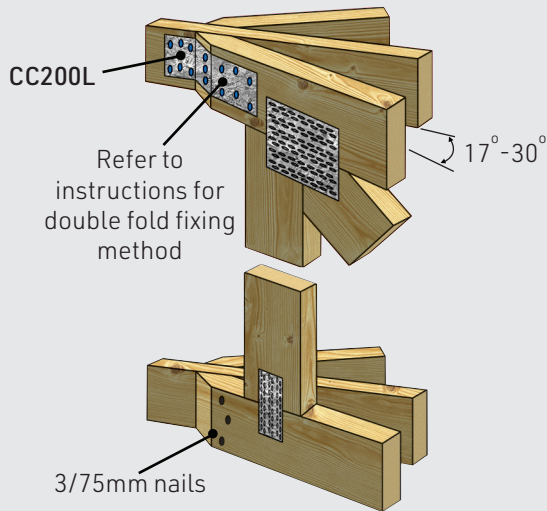
### TYPE B CONNECTION



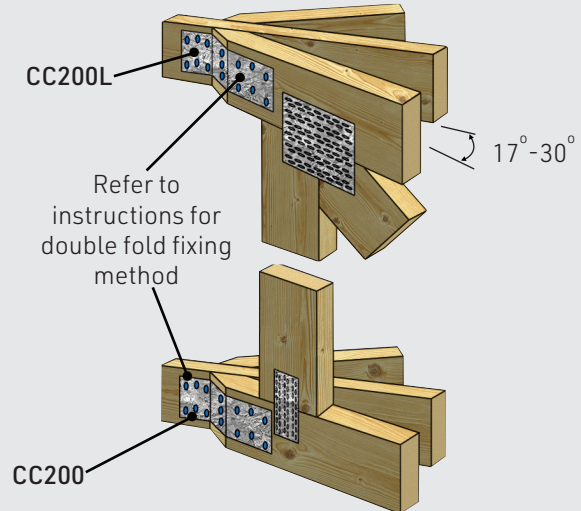
## DOUBLE FOLD FIXING METHOD

Suits double mitred jack/cut-off truss with skew angle from 17° to 30°. Single mitre and square cut ends are not suitable for this method.

### TYPE A CONNECTION

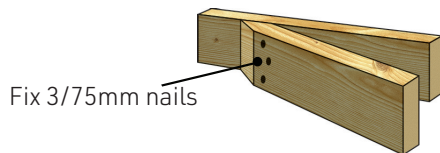


### TYPE B CONNECTION

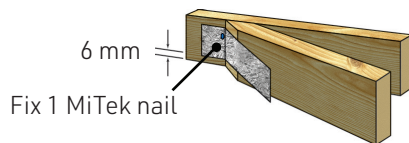


## INSTRUCTIONS FOR DOUBLE FOLD FIXING METHOD

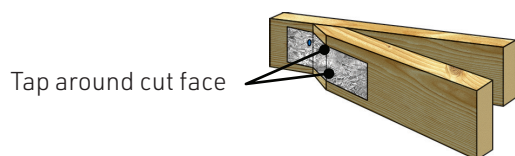
Fix three effective flat-head 75mm nails through the full thickness of jack/cut-off member as per AS4440 through to hip/girder member.



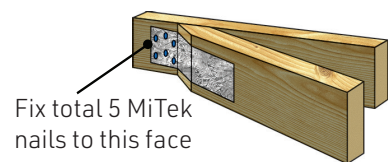
Align the bend line to best fit and offset CreeperConnector 6mm above as shown below. Fix 1 MiTek nail close to the bend line on the hip/girder member.



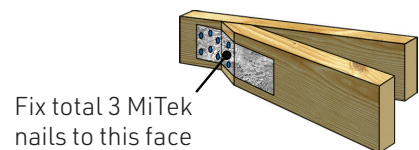
Tap the CreeperConnector around the mitred cut face and jack/cut-off chord ensuring that the whole bracket fits within the chord depth.



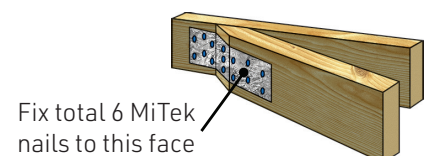
Fix another 5 MiTek nails to the outermost nail hole locations in the hip/girder member.



Fix 3 MiTek nails to the mitred cut face.



Fix 6 MiTek nails to the jack/cut-off member.



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