

ExtraHeavy Universal Girder Bracket

ENGINEERED FOR STRENGTH AND EASE OF USE

The ExtraHeavy HiLoad Girder Bracket will support trusses 35mm to 90mm thick and is also suitable for girder truss bottom chords of 130mm and deeper.



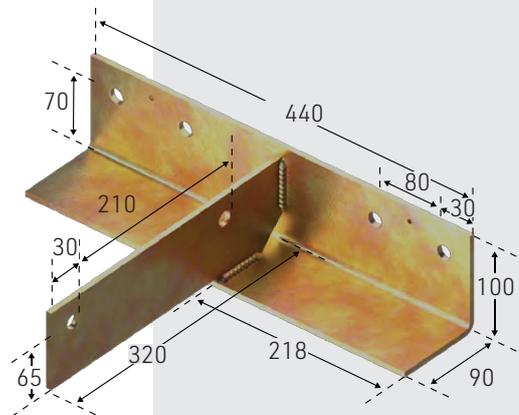
For durability information, please refer to **Corrosion Resistance of MiTek Metal Connectors**, available on the MiTek website at mitek.com.au

The supported truss can be located on either side of the cleat making the location of the bracket much simpler.

The ExtraHeavy HiLoad Girder Bracket is manufactured with a long cleat to prevent the twisting of the bottom chord of the girder truss. The cleat also has a cut away section which avoids the possibility of interference with ceiling linings.

USES

- The 6mm ExtraHeavy Universal Girder Bracket is designed to secure heavily loaded trusses, like truncated girder and secondary girder trusses to primary girder trusses.
- ExtraHeavy HiLoad Girder Brackets are top of the range Girder Brackets utilizing M16 bolts and a large angle section for increased bearing and a long cleat to resist twisting of girder bottom chords.
- Hip Hold Down (optional) combine CT1200 with ExtraHeavy HiLoad Girder Bracket for fixing hip on incoming girder truss connection.



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

SPECIFICATIONS

Steel Grade	G250
Thickness (Total Coated)	6.0 mm
Coating	Electro-galvanised
Bolts	Zinc plated M16 (Standard and All Thread)
Washers	Zinc plated 65mm diameter
Nails	MiTek 40 x 3.75mm hot dipped galvanised reinforced head.
Product Code	GBXH to suit 38, 50, 75 and 90mm timber thickness. GBHBLT- bolt kit.

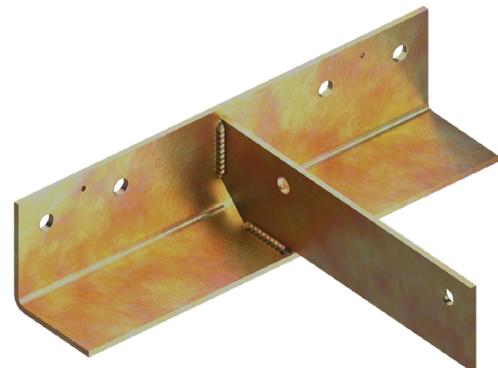
Values in () require AntiSplit plates on both sides of Girder Bracket and on both faces of girder bottom chord.

When different timbers are used in girder and supported trusses, base 'DL only' and 'DL+LL' capacities selection on joint group of girder truss and 'DL+WL' capacity on weaker joint group of girder and supported truss.

If Girder Bracket is also used to support a hip truss, allocate maximum 85% capacity to supported truss and 15% (DL only, DL+LL) or 30% (DL+WL) capacity to hip truss.

Table 1

Limit State Design Capacity (kN)					
Joint Group	Nominal Girder Thickness (mm)	DL only $k_1 = 0.57$	DL + Roof LL $k_1 = 0.77$	DL + WL $k_1 = 1.14$	
		Supported Truss Thickness			
		35/45	35/45	35	45
J2	38	15.0 (16.8)	20.3 (22.6)	15.8	20.5
	50	17.5 (22.5)	23.7 (30.4)	15.8	20.5
	2/38	23.0	31.0	15.8	20.5
J3	38	11.5	15.6	10.0	13.2
	50	14.1	19.1	10.0	13.2
	2/38	18.1	24.4	10.0	13.2
J4	38	7.2	9.7	6.4	8.5
	50	9.1	12.3	6.4	8.5
	2/38	13.2	17.8	6.4	8.5
J5	38	4.9	6.6	4.2	5.7
	50	6.5	8.8	4.2	5.7
	2/38	9.0	12.2	4.2	5.7
J6	38	2.5	3.4	2.1	2.8
	50	3.3	4.4	2.1	2.8
	2/38	4.9	6.6	2.1	2.8
JD2	35	15.0 (21.5)	20.3 (29.1)	20.5	25.9
	45	17.5 (27.7)	23.7 (37.4)	20.5	25.9
	2/35	25.0 (29.5)	33.7 (39.9)	20.5	25.9
JD3	35	15.0 (16.3)	20.3 (22.0)	15.1	19.4
	45	17.5 (20.9)	23.7 (28.3)	15.1	19.4
	2/35	25.0 (27.9)	33.7 (37.7)	15.1	19.4
JD4	35	12.1	16.4	11.4	14.4
	45	15.0 (15.4)	20.3 (20.8)	11.4	14.4
	2/35	21.4 (23.3)	28.9 (31.4)	11.4	14.4
JD5	35	8.6	11.6	7.8	10.2
	45	11.1	15.0	7.8	10.2
	2/35	17.2	23.3	7.8	10.2
JD6	35	5.8	7.9	5.3	6.9
	45	7.5	10.1	5.3	6.9
	2/35	11.7	15.8	5.3	6.9



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

Category	1	2	3
Adjustment factor	1.00	0.94	0.88

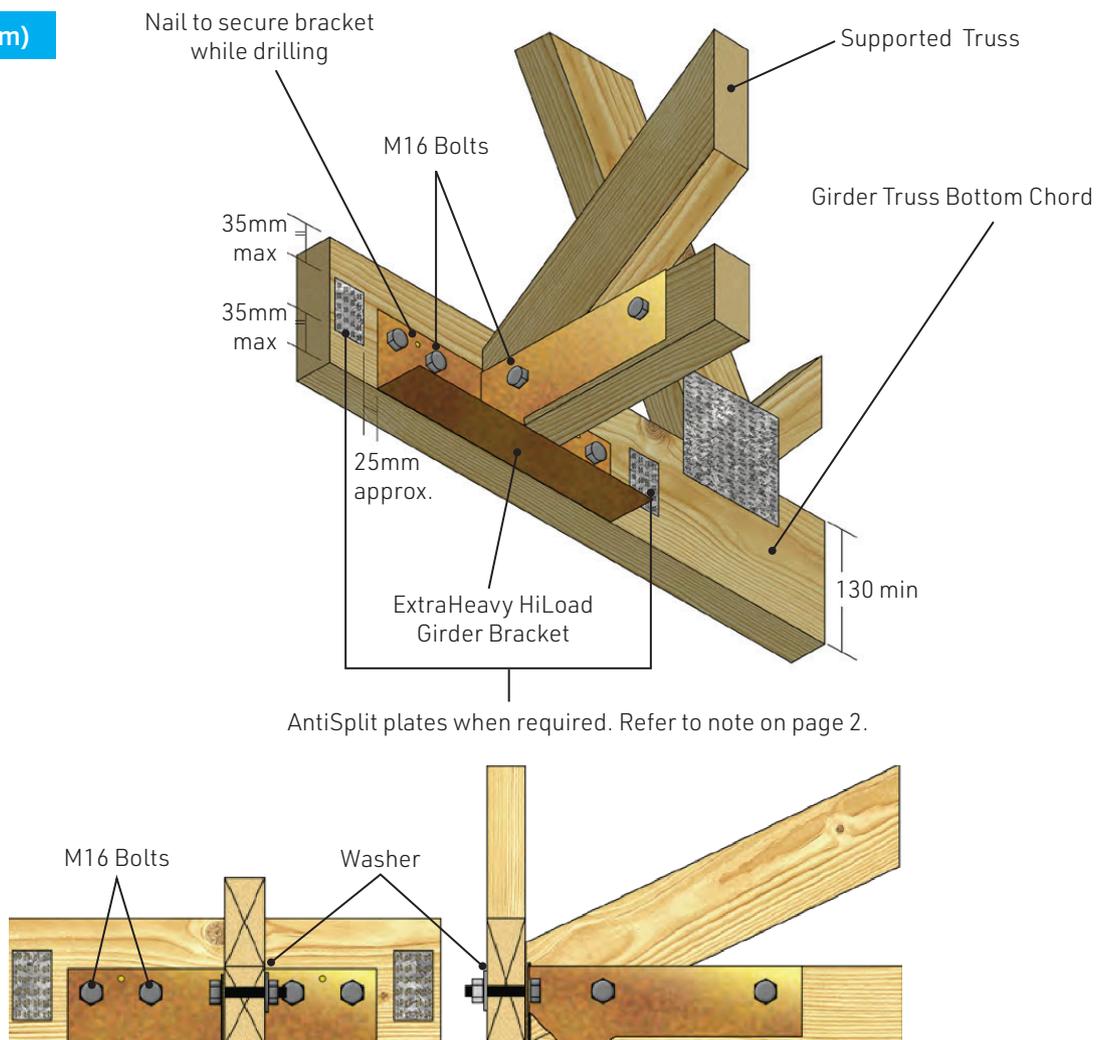
FIXING INSTRUCTIONS FOR EXTRAHEAVY HILOAD GIRDER BRACKET

1. Install the Girder Truss straight and plumb. Apply temporary and/or permanent bracing as required by design.
2. Locate bracket on Girder Truss bottom chord and fix into position by nailing through locating holes.
3. Drill through pre-punched bolt holes into Girder Truss bottom chord. Fix bracket to Girder Truss bottom chord with bolts ensuring correct washers are used to provide bearing against the timber.
4. Position Supported Truss in the bracket so that it is hard against both the cleat and the vertical leg of angle.
5. Fix truss being carried to Girder Bracket by drilling through pre-punched holes in Girder Bracket cleat.
6. Ensure washers are fitted and all bolts are tightened before loading roof.

Notes

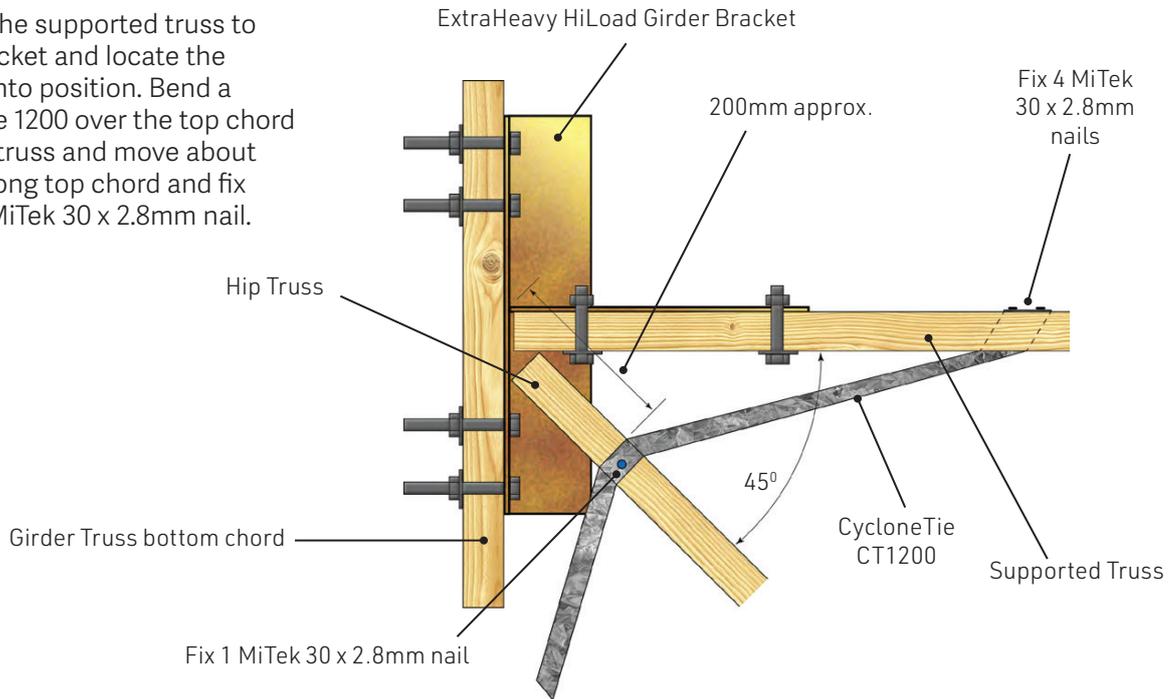
1. Holes to be drilled to suit M16 bolts. Do not drill oversized holes and use hexagonal head bolts. DO NOT USE REDUCED SHANK OR CUP HEAD BOLTS.
2. Girder Truss bottom chords to be a minimum of 130mm (nominal) for HiLoad Girder Bracket and 90mm for MidLoad Girder Bracket.
3. Where ceiling is to be fixed directly to bottom chord, notching of the heel of supported trusses is acceptable to obtain a better ceiling line.
4. Supported Truss bottom chords to be a minimum of 90mm (nominal) for HiLoad Girder Bracket.

X HiLoad (6mm)

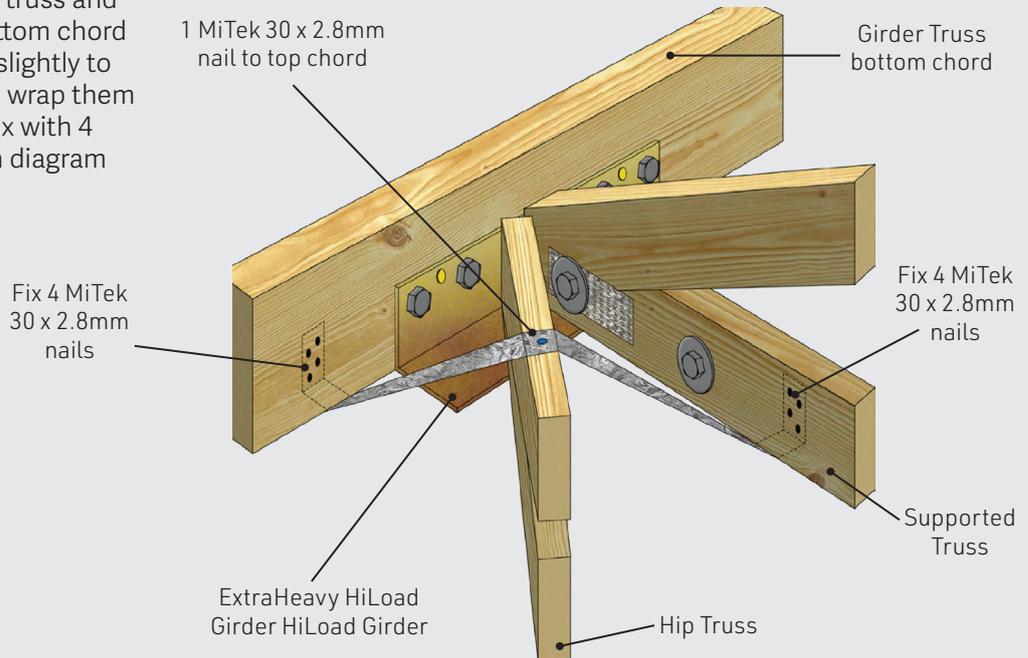


FIXING INSTRUCTIONS FOR HIP HOLD DOWN WITH HILOAD GIRDER BRACKET

1. Secure the supported truss to Girder Bracket and locate the hip truss into position. Bend a CycloneTie 1200 over the top chord of the hip truss and move about 200mm along top chord and fix with one MiTek 30 x 2.8mm nail.



2. Bend one leg under the bottom chord of the supported truss and the other under the bottom chord of the girder truss. Tap slightly to make a tight bend then wrap them under the chords and fix with 4 MiTek nails as shown in diagram below.



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