

GANG-NAIL[®]

FastFit MkIV Girder Bracket

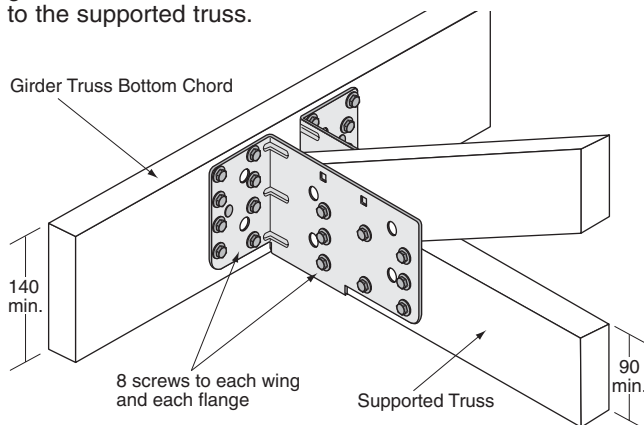
**FOR FIXING STANDARD TRUSSES
TO GIRDER TRUSSES**

INSTALLATION

FastFit MkIV Girder Bracket can be installed with either M12 bolts or MiTek anti-split self-drilling screws for speedy installation.

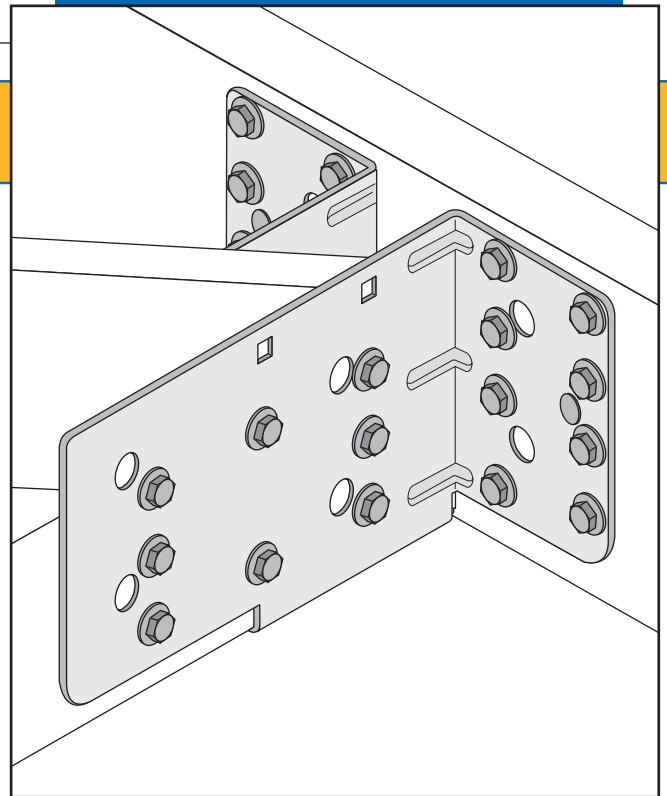
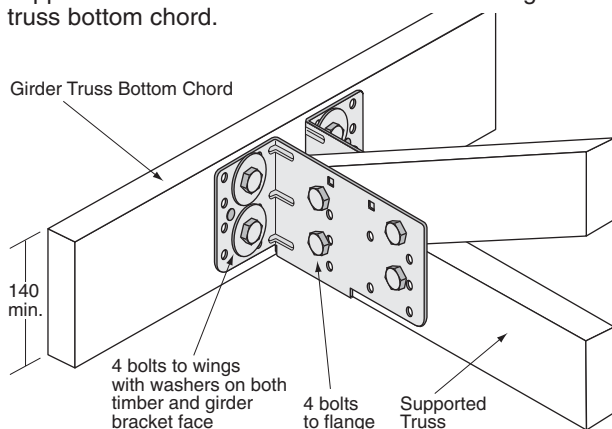
Screw fixing:

Fix FastFit MkIV Girder Bracket with 16 screws to the girder truss bottom chord and 16 screws in round holes to the supported truss.



Bolt fixing:

Fix FastFit MkIV Girder Bracket with 4 M12 bolts to the girder truss bottom chord and 4 M12 bolts to the supported truss. Use washers on both sides of girder truss bottom chord.



USES

The MkIV Girder Bracket is designed to secure a girder truss supporting a particularly high load to the side of a secondary girder truss bottom chord using either MiTek FastFit anti-split screws or M12 bolts.

ADVANTAGES

- Light gauge steel to reduce weight.
- Provides more economical connection than heavy steel brackets with similar capacities.
- Rounded corners for safe handling.
- Screw or bolt fixed.

This Engineered Building Product complies with
AS/NZS 1170 Loading Code

MiTek[®]

creating the **advantage**

LOAD DATA:

Use reactions from truss designs to check suitability of selected Girder Bracket. All load combinations of Dead, Dead plus Live (downward Load) and Dead plus Wind (Uplift) should be checked.

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

PRODUCT CODE & SIZES:

GB440 to suit 35 and 38mm timber thickness

Limit State Design Capacity (kN)							
Joint Group	Nom. Girder Thickness (mm)	Screw Fixing			Bolt Fixing		
		DL only $k_1 = 0.57$	DL+ Roof LL $k_1 = 0.77$	DL+WL $k_1 = 1.14$	DL only $k_1 = 0.57$	DL+ Roof LL $k_1 = 0.77$	DL+WL $k_1 = 1.14$
J2	38	15.5	20.9	26.1	12.2	16.5	20.9
	50	15.5	20.9	26.1	14.3	19.3	20.9
	2/38	17.8	24.0	26.1	16.5	22.3	20.9
J3	38	13.7	18.5	20.9	7.7	10.4	15.4
	50	13.7	18.5	20.9	10.8	14.6	20.9
	2/38	15.8	21.3	20.9	13.0	17.5	20.9
J4	38	9.7	13.1	19.4	5.0	6.7	10.0
	50	9.7	13.1	19.4	7.0	9.4	14.0
	2/38	11.2	15.1	20.9	9.5	12.8	19.0
J5	38	7.1	9.6	14.2	3.3	4.4	6.6
	50	7.1	9.6	14.2	4.6	6.2	9.2
	2/38	8.1	11.0	16.2	7.0	9.5	14.0
J6	38	4.5	6.1	9.0	1.7	2.3	3.4
	50	4.5	6.1	9.0	2.3	3.2	4.6
	2/38	5.2	7.1	10.4	4.1	5.5	8.2
JD2	35	15.5	20.9	26.1	12.2	16.5	20.9
	45	15.5	20.9	26.1	14.3	19.3	20.9
	2/35	17.8	24.0	26.1	16.5	22.3	20.9
JD3	35	15.5	20.9	26.1	12.2	16.5	20.9
	45	15.5	20.9	26.1	14.3	19.3	20.9
	2/35	17.8	24.0	26.1	16.5	22.3	20.9
JD4	35	13.7	18.5	20.9	9.0	12.1	18.0
	45	13.7	18.5	20.9	11.5	15.6	20.9
	2/35	15.8	21.3	20.9	12.1	16.3	20.9
JD5	35	9.7	13.1	19.4	6.5	8.7	13.0
	45	9.7	13.1	19.4	8.3	11.2	16.6
	2/35	11.2	15.1	20.9	8.8	11.9	17.6
JD6	35	7.1	9.6	14.2	4.3	5.9	8.6
	45	7.1	9.6	14.2	5.6	7.6	11.2
	2/35	8.1	11.0	16.2	6.3	8.6	12.6

Notes:

- Values in this table incorporate the capacity factor (ϕ) for houses. For different building applications, multiply the design capacities by the following factors. Refer to AS1720.1 for a full definition of each category and building application.
- Refer to Timber Engineering Code AS1720 for Joint Group classifications for each timber species.

Category	Building application	Adjustment factor
1	House	1.00
2	Commercial/Industrial	0.94
3	Post-disaster function	0.88

FIXING INSTRUCTIONS:

Locate bracket on girder truss bottom chord and hold in position by nailing through small locating holes.

Bolt fixed:

1. Drill through 12mm pre-punched holes in girder bracket wings. Fix bracket with bolts and washers. Washers are required on both timber and girder bracket faces. No additional fasteners are required for multiple ply girders beyond normal fixings.
2. Install supported truss on bracket and position it hard against girder.
3. Drill through 12mm pre-punched holes in girder bracket flanges and fix with bolts.

Screw fixed:

1. Drive screws through 6.5mm pre-punched holes into girder bracket wings. The closest square hole may be used instead of any round hole which does not adequately overlap solid timber. Connector plates must not be avoided when fixing screws as they are self-drilling. Use 30mm screws in single ply and 65mm screws in double ply 35mm girder. With triple 35mm ply girder, use 65mm screws in bracket and fix 8 additional 65mm screws in back of girder truss behind bracket. Alternatively, use 100mm No. 14 Type 17 hex head screws in bracket. With multiple 50mm ply girder, use bolts or longer screws.
2. Install supported truss on bracket and position it hard against girder.
3. Drive screws through 6.5mm pre-punched round holes in girder bracket flanges and fix with 30mm screws.

All fasteners (bolts, screws and nails) must be tightly secured before trusses are loaded.

Nominal multiple ply truss fixing:

Double truss - Fasten all chords and webs together with 3.05 x 75mm glue coated or ring shank nails (at angle), or No. 14 x 65mm screws (35mm timber) or 75mm screws (50mm timber) at 300 centres, staggered on one side only.

Triple truss - Fasten each outer ply to middle ply using details for double truss. In addition, join trusses at each panel joint with one M12 bolt.

General Notes:

1. Holes to be drilled to suit M12 bolts. Do not drill oversized holes. Use hexagonal head bolts. **DO NOT USE REDUCED SHANK OR CUP HEAD BOLTS.**
2. Use 56mm diameter x 3 mm round washers for M12 bolts.
3. Nails, where specified, to be MiTek 30 x 2.8mm diameter hot dipped galvanised reinforced head nails.
4. Minimum Girder Truss bottom chord is 140mm.
5. Screws, where specified, to be MiTek MSA1430 or MSA1465 anti-split self-drilling HD galvanized screws. **DO NOT OVERTIGHTEN SCREWS.** Use suitable power screw driver (not power drill) with torque clutch properly adjusted, or depth limiting driver.
6. When driving screws into denser hardwood, screws should be driven in a single action. Do not partly drive screws and attempt to re-start. Remove partly driven screws and start process again.

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SPECIFICATION:

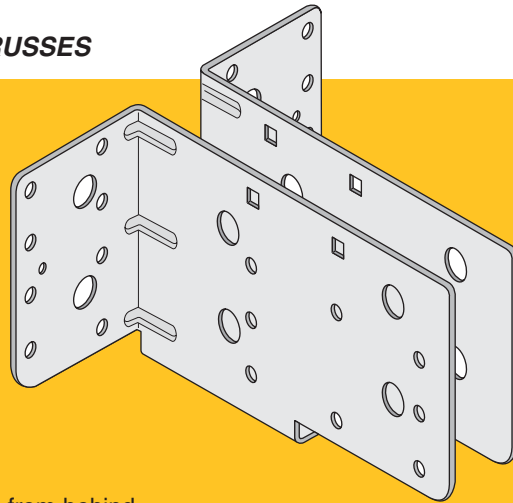
Steel: Grade G300

Thickness 1.55mm TCT
Galvanized coating Z275

Bolts: Zinc plated M12 - Qty 8

Washers: Zinc plated 56mm diameter - Qty 8

Screws: MSA1430 - MiTek No.14 x 30mm anti-split self-drilling HD galvanized screws - Qty 32
MSA1465 - MiTek No.14 x 65mm anti-split self-drilling HD galvanized screws - Qty 16
for use with double ply girder trusses
For triple ply girders, fix extra 8 x 65mm screws from behind



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