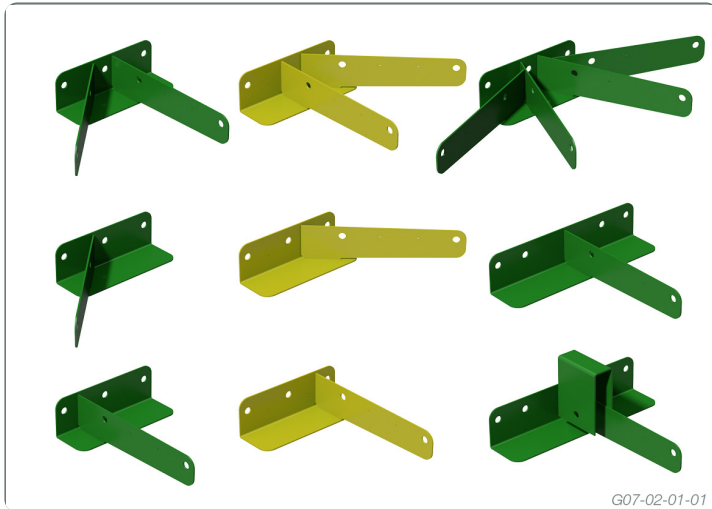


## High Load Truss Boots



Steel girder brackets for connecting girder trusses to the bottom chord of primary girder trusses

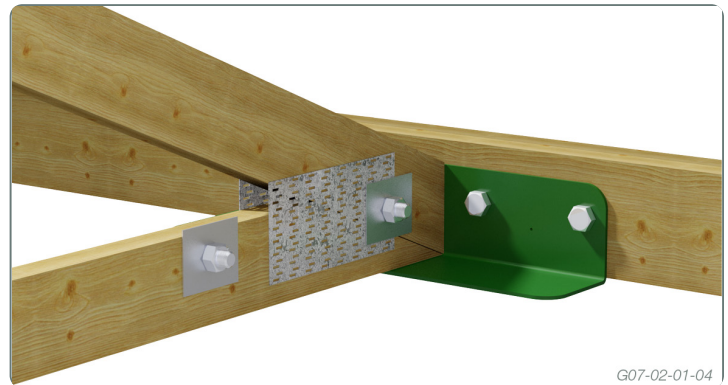
These steel girder brackets are available in various configurations.

Heavy Load Truss Boot to assist in the tie down of trusses in high wind uplift areas.

The extra clip dramatically improves the tie down value.

### APPLICATION

1. Place the High Load Truss Boot in the correct position and drill holes into the bottom chord of the girder truss to suit M16 Multinail Hex Head bolts.
2. Align the bolt holes of the High Load Truss Boot to the bolt holes in the girder truss and install the M16 Multinail Hex Head bolts with the correct size washers.
3. Place the supported truss on the bracket and drill holes into the supported truss to suit the required Multinail Hex Head bolts.
4. Align the bolt holes of the High Load Truss Boot to the bolt holes in the supported truss and install the required Multinail Hex Head bolts with the correct size washers.
5. Tighten all bolts before loading with roof materials.



### NOTES

- Bracket may sit below truss bottom chord. Alternatively, the supported truss bottom chord may be rebated by 4mm for a length of 96mm.
- Minimum girder bottom chord size for M16 bolts is 130mm.
- For a better fit, truss can be designed with a 4mm cutoff.
- Temporary bracing is required during installation.
- Minimum end distance for bolts is five (5) times the bolt diameter.
- Values DL + LL are for roof live loads. Based on  $K1 = 0.77$ .
- Bolts and washers to be installed as per AS1720.1-2010.

## LIMIT STATE DESIGN LOADS

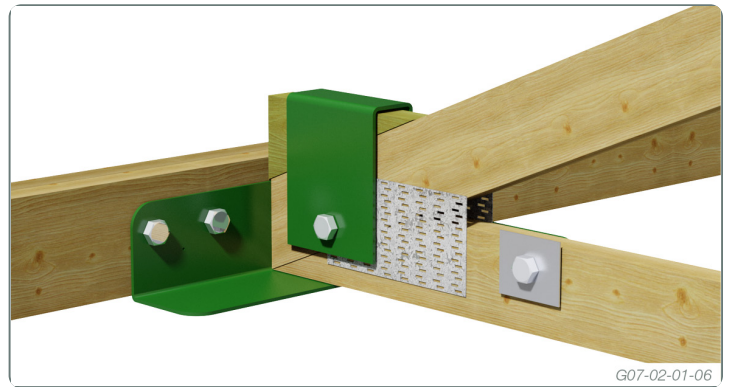
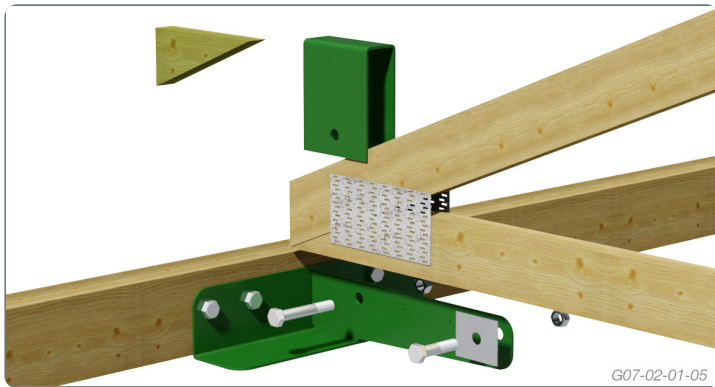
Timber Joint Group	Girder or Std Truss Thickness	Load Combination Values (Kn)					
		3 x M16 Bolts		4 x M16 Bolts		2 x M12 Bolts	2 x M16 Bolts
		Dead Load	Dead Load + Live Load	Dead Load	Dead Load + Live Load	Dead Load + Wind Load	Dead Load + Wind Load
JD3	35	13.8	18.7	18.4	24.9	13.8	18.4
	45	17.8	24.0	23.7	32.0	17.8	23.7
	2/35	23.7	32.0	31.6	42.7	20.5	31.6
JD4	35	10.2	13.7	13.6	18.3	10.2	13.5
	45	13.1	17.7	17.4	23.6	13.1	17.4
	2/35	17.4	23.5	23.3	31.4	17.1	23.2
JD5	35	7.3	9.8	9.8	13.2	7.3	9.7
	45	9.4	12.7	12.5	17.0	9.4	12.5
	2/35	12.5	17.0	16.7	22.6	12.5	16.7

**NOTE:**

- Capacities as per AS1720.1 for bolt shear and testing.
- For all other joint group capacities contact Multinail Australia Pty Ltd.
- For uplift, use minimum joint group of girder and carried truss.

## APPLICATION WITH CLIP

1. Place the High Load Truss Boot in the correct position and drill holes into the bottom chord of the girder truss to suit the 4/M16 Multinail Hex Head bolts.
2. Align the bolt holes of the High Load Truss Boot to the bolt holes in the girder truss and install the M16 Multinail Hex Head bolts with the correct size washers.
3. Place the supported truss on the bracket and drill holes into the supported truss to suit the 2/M16 Multinail Hex Head bolts.
4. Align the bolt holes of the High Load Truss Boot to the bolt holes in the supported truss, clip and install the M16 Multinail Hex Head bolts with the correct size washers.
5. Neatly insert timber wedge between clip and truss heel to ensure full bearing.
6. Tighten all bolts before loading with roof materials.



**NOTE:**

- The supported truss bottom chord may be rebated by 4mm for a length of 96mm.
- For a better fit, truss can be designed with a 4mm cutoff.
- Minimum girder bottom chord size is 130mm.
- Temporary bracing is required during installation.
- Minimum end distance for bolts is five (5) times the bolt diameter.
- Values DL + LL are for roof live loads. Based on K1 = 0.77.
- Bolts and washers to be installed as per AS1720.1-2010.
- Timber wedge to be minimum same grade as top chord of carried truss.

LIMIT STATE DESIGN LOADS

Timber Joint Group	Girder or Std Truss Thickness	Load Combination Values (Kn)			
		4 x M16 Bolts		2 x M16 Bolts	With Clip
		Dead Load	Dead Load + Live Load	Dead Load + Wind Load	Dead Load + Wind Load
JD3	35	18.4	24.9	24.4	36.9
	45	23.7	32.0	31.4	47.4
	2/35	31.6	42.7	33.5	63.2
JD4	35	13.6	18.3	18.4	27.2
	45	17.4	23.6	23.7	34.8
	2/35	23.3	31.4	31.6	46.6
JD5	35	9.8	13.2	9.7	19.4
	45	12.5	17.0	12.5	25.0
	2/35	16.7	22.6	16.7	33.4

NOTE:

- Capacities as per AS1720.1 for bolt shear.
- For all other joint group capacities contact Multinail Australia Pty Ltd.
- For uplift, use minimum joint group of girder and carried truss.

DESCRIPTION AND PACKAGING

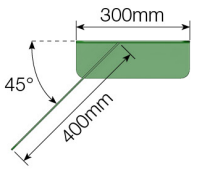
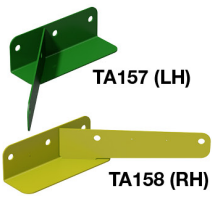
Manufactured from 4.0mm Steel

Description	Product Code	Reference Code	Quantity	Kg.
45°LH	TA157	HLTB45L	1	2.80
45°RH	TA158	HLTB45R	1	2.80
45/90°LH	TA063	HLTB4590L	1	3.82
45/90°RH	TA067	HLTB4590R	1	3.82
Fan Hip End TB	TA073	TBFHE	1	5.85
LH	TA056	HLTBL	1	2.80
RH	TA009	HLTBR	1	2.80
Universal HLTB	TA404	UHLTBL	1	3.65
Universal HLTB with Clip	TA410	HDHLTB040	1	4.64
M12 x 65mm Bolt (TA091), M12 x 100mm Bolt (TA092),				
M16 x 65mm Bolt (TA114), M16 x 100mm Bolt (TA115), M16 x 150mm Bolt (TA089)				

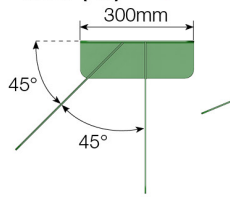
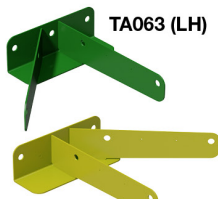
M12 Bolts in carried trusses, M16 Bolts in girder truss

All M16 Bolts

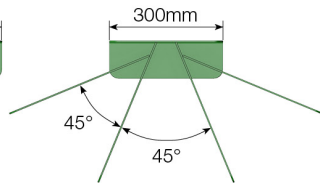
45° LH/RH Truss Boot



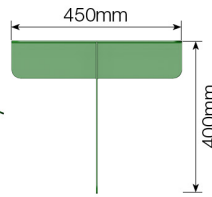
45/90° LH/RH Truss Boot



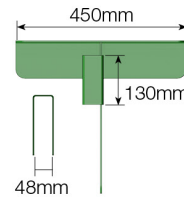
Fan Hip End Truss Boot



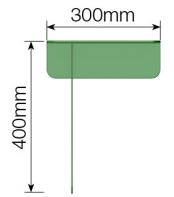
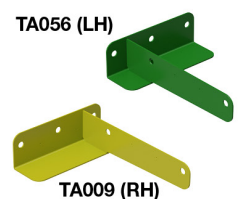
Universal Truss Boot



Universal HLTB with Clip



LH/RH Truss Boot



G07-02-01-02

Due to continual product improvement Multinail Australia Pty Ltd. reserves the right to change the product/s depicted - both in description and specification. This document has to be read in conjunction with Multinail's Technical Manual.