

TRUSS BOOTS

FEATURES AND BENEFITS

EASY: Simple to install with bolt kits available to make installation a breeze.

VERSATILE: Multiple types available with different thicknesses and fastening types. TB80V includes a variable angle swing arm to achieve any angle.

STRONG: Provides ample capacity against gravity, uplift and rotational loads.

SPECIFICATIONS

	MULTI-FIX TRUSS BOOT	HEAVY DUTY
STEEL	G300	Mild Steel
THICKNESS	1.6mm	4mm to 5mm
CORROSION RESISTANCE	Z275	Hot Dipped Galvanised
FASTENERS REQUIRED	M12 bolts or M12 and M16 bolts Pryda painted hex head 12G 35mm or 65mm screws	M16 Bolts with 63x54mm square washers For TBHD75 the above and; Pryda painted hex head 12G 35mm or 65mm screws
HEIGHTS	105-110mm	100-150mm
WIDTHS	38-73mm	365-450mm

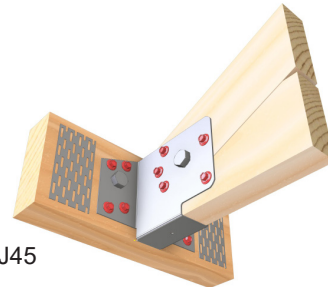
Strong means of forming a truss to truss connection.

Note: The product marked with * is no longer available.

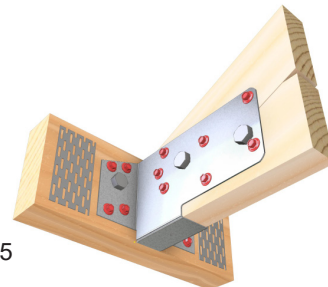


AS1684 & AS1720 COMPLIANT

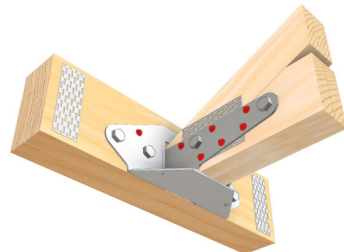
- Minimum Z275 Galvanised Steel
- Design values tested in accordance to the relevant standard



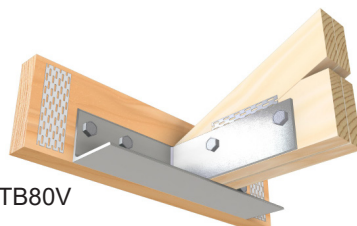
TBJ35, TBJ45



TB35, TB45



TBHD75



TB80C*, TB80V

APPLICATION & FEATURES

Pryda Multi-Fix Truss Boots are used to connect roof trusses or other roof members to supporting “girder” trusses and they comprise:

- Joist Boots used for:
 - *End support of joists and beams
 - *Support of lightly loaded trusses from girder trusses
- Truss Boots – used for support of standard trusses.

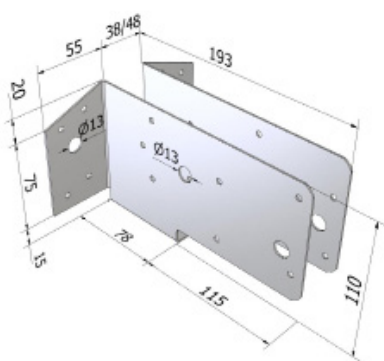
See also Pryda Heavy Duty Truss Boots.

“Multi-fix” means that these connectors can be fixed with bolts or screws, or bolts and screws together.

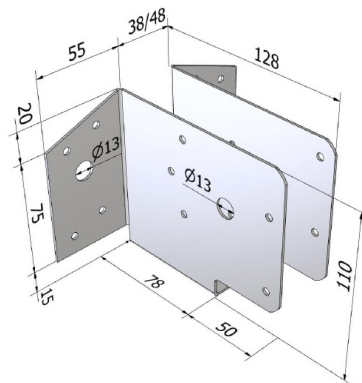
TYPE	PRODUCT CODE	TIMBER THICK.	BOLT DIAM.	APPLICATIONSUPPORTOF:
Truss Boot	TBJ35	35	12	eg: at hip ends Lightly loaded trusses
	TBJ35/T	35	12	
	TBJ45	45	12	
	TBJ70	70	12	
	TB35/12	35	12	Standard trusses
	TB35/16	35	16/12	
	TB45/16	45	16/12	
Steel	TBJ & TB – 1.6 mm G300 –Z275 Galvanized			
Packing	10 per carton			
Size	See dimensions following			

DIMENSIONS

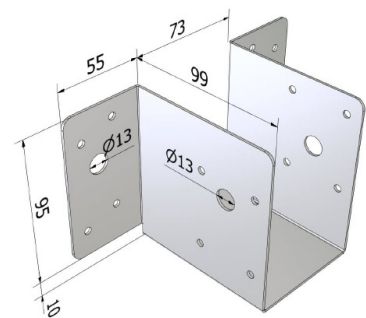
Dimensions of Pryda Joist Boots and Truss Boots are:



TB35, TB45



TBJ35, TBJ35/T, TBJ45



TBJ70

TRUSS BOOTS

PRODUCT CODE	MATERIAL	DIMENSIONS			QTY	FIXING TO SUPPORTING TRUSS		FIXING TO SUPPORTED TRUSS		BOLT KIT PRODUCT CODE		
		W	D	H		FASTENER	WASHER	FASTENER	WASHER			
JOIST BOOTS – MULTI-FIX												
TBJ35	1.6mm G300 Z275 Galvanised Steel	38	128	110	10	2 M12 Bolts &/or 8 12x35mm Screws	55x55 x3mm	1 M12 Bolt &/or 8 12x35mm Screws	55x55 x3mm	OBK312		
TBJ35/T												
TBJ45		48	128	110								
TBJ70		73	99	105								
TRUSS BOOTS – MULTI-FIX												
TB35/12	1.6mm G300 Z275 Galvanised Steel	38	193	110	10	2 M12 Bolts &/or 8 12x35mm Screws	55x55 x3mm square	2 M12 Bolts &/or 12 12x35mm Screws	55x55 x3mm	OBK312		
TB35/16										2 M16 Bolts &/or 8 12x35mm Screws	55x55 x3mm	N/A
TB45/16												
TRUSS BOOTS – HEAVY DUTY												
TB80C*	5.0mm Hot Dipped Galvanised Mild Steel	450	280	100	1	4 M16 Bolts & Pryda Timber Connector Nails	63x63 x5mm	2 M16 Bolts	63x63 x5mm	OBK816		
TB80V (Variable angle)								2 M16 Bolts				
TBHD75	4.0mm Hot Dipped Galvanised Mild Steel	379	278	150				2 M16 Bolts & 6 12x35mm Screws				
TBHD75/T								2 M16 Bolts & 6 12x35mm Screws			57x57 x4mm	

Update: The product marked with * is no longer available.

NOTES:

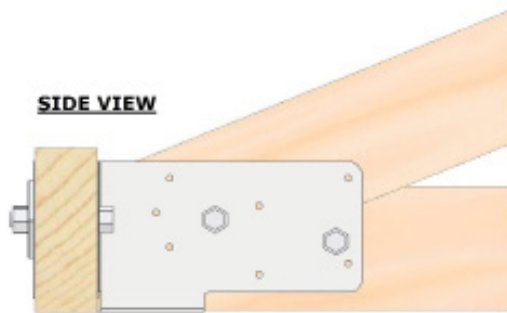
- *M12 or ½ inch diameter must be fitted with nuts and 55 mm diameter or 50x50 mm square by 3 mm thick washers. M16 or 5/8 inch diameter bolts must be fitted with nuts and 65 mm diameter or 57x57 mm square by 4mm thick washers. See Pryda Bolt Kits in below table.
- Pryda Heavy Duty Truss Boots are installed with 6/ M16 bolts and with 63x4 mm square washers on all surfaces where the bolt head or nut bears directly on the timber.
- Screws are Pryda TCS12-35/1K (No. 12x35 mm red hex head screws).
- The TBJ35/T has a tongue to tie the supported truss to the girder.

IMPORTANT:

READ THIS DATASHEET IN CONJUNCTION WITH PRYDA HANGERS & TRUSS BOOTS DESIGN GUIDE AND REFER TO ESSENTIAL NOTES AND GENERAL NOTES.

BOLTS ONLY INSTALLATION

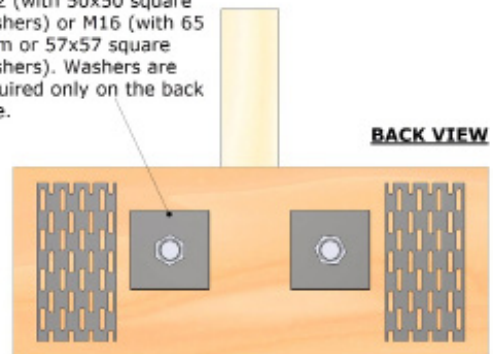
STEP 1



- Fit the Boot flush with the bottom of the girder bottom chord and tack fix with two nails or screws.
- Drill the bolt hole and fit the bolt with the nut and washer on the face opposite to the boot.
- Ensure correct bolt length and specification is used.

STEP 2

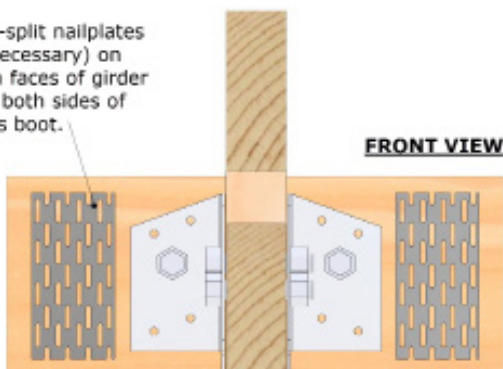
M12 (with 50x50 square washers) or M16 (with 65 diam or 57x57 square washers). Washers are required only on the back face.



- Sit the incoming member into the boot and fix it in place.
- The clearance between the end of the incoming member and the face of the girder truss chord should not exceed 5 mm, preferably tight fitting.
- Drill the bolt hole (TBJ and TB types only) and fit the bolt(s) and nut(s).

STEP 3

Anti-split nailplates (if necessary) on both faces of girder and both sides of truss boot.

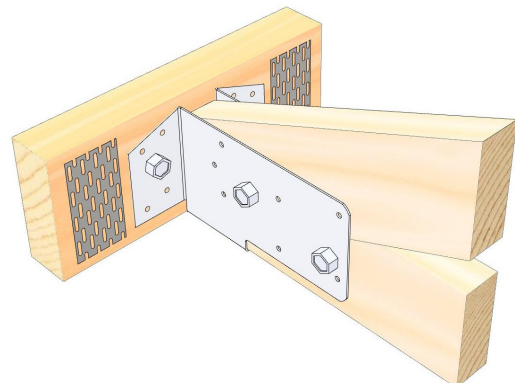


- Hammer apply anti-split Claw nailplates on the girder truss chord on both faces and both sides of the Boot, ie: 4 nailplates of:

CHORD WIDTH (MM)	90	120,140	170,190
ANTI-SPLITPLATESIZE	3C2	4C2	6C2

- Note: Anti-split Claw nailplates are NOT required for boots fixed with M12 bolts into timbers that are not prone to splitting.

STEP 4



- Important: The roof cladding (tiles, sheet steel etc) must be installed only after the truss boots are fully fixed into both the girder and supported truss, with all bolts and washers in place.

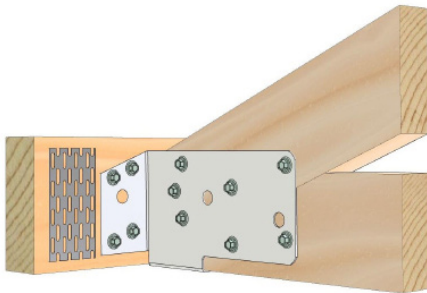


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SEE OUR HANGERS & TRUSS BOOTS DESIGN GUIDE AVAILABLE AT PRYDA.COM.AU

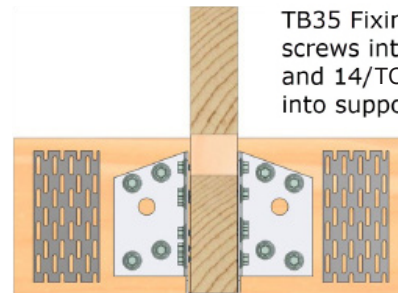
SCREWS ONLY INSTALLATION

STEP 1



- If the girder truss is comprised of two or more laminates (ie: a “double” or “triple” girder), the laminates must be fixed together using one of the details specified in Fixing Details For Double or Triple Girders opposite.

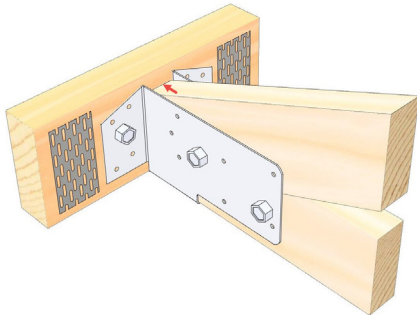
STEP 2



TB35 Fixing : 8/TCS 12-35 screws into supporting truss and 14/TCS 12-35 screws into supported truss.

- Fit the Boot flush with the bottom of the girder bottom chord and tack fix with two screws.
- Drive the remaining screws.

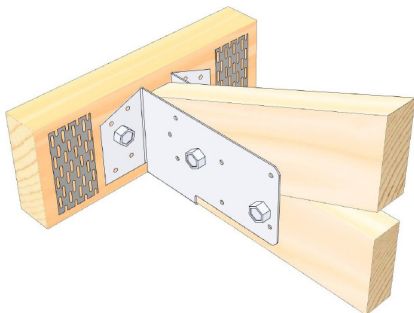
STEP 3



- Sit the incoming member into the boot and fix it in place.
- The clearance between the end of the incoming member and the face of the girder truss chord should not exceed 5 mm, preferably 0 mm.
- Drive screws into all holes.
- Note: that anti-split nailplates are not required for Screws Only fixing.

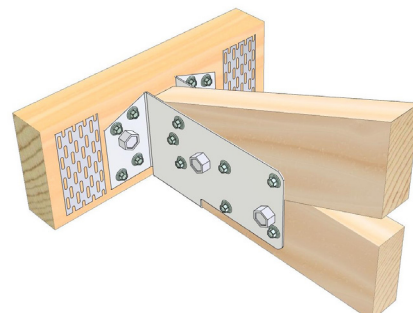
BOLTS & SCREWS INSTALLATION

STEP 1



- Install the Truss Boot and supported truss as per the Bolts Only method.

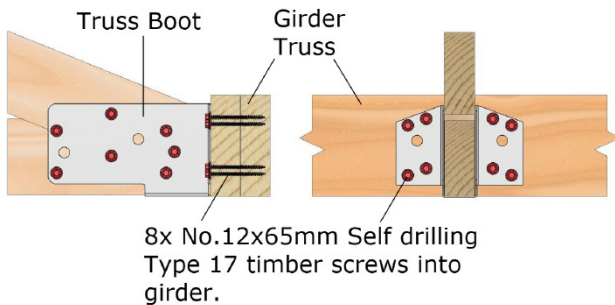
STEP 2



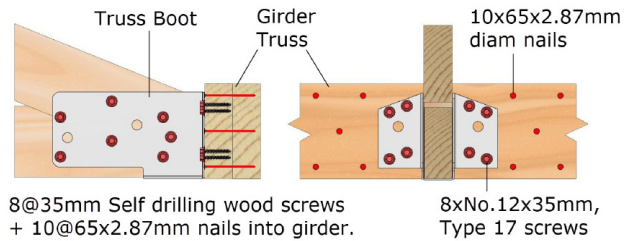
- Drive the screws into all screw holes.
- Important: The roof cladding (tiles, sheet steel etc) must be installed only after the truss boots are fully fixed into both the girder and supported truss.

FIXING DETAILS FOR DOUBLE & TRIPLE GIRDERS SCREWS ONLY

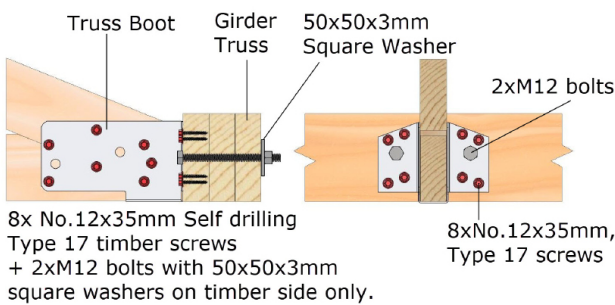
DOUBLE GIRDERS



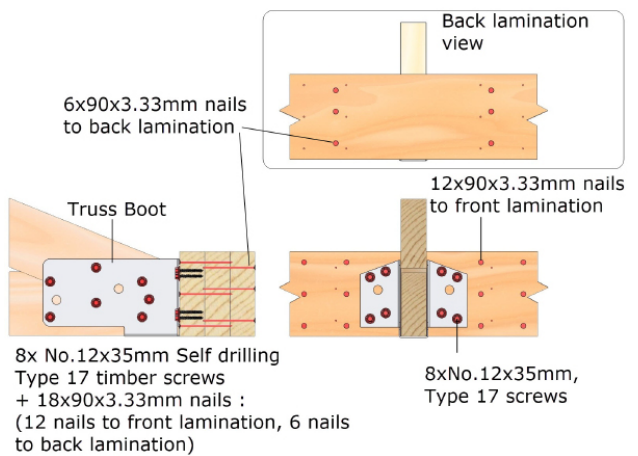
ALTERNATIVE FIXING DETAIL



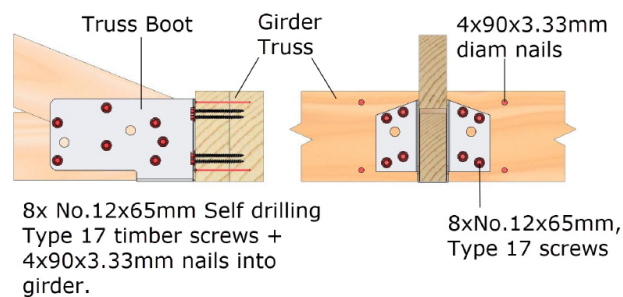
TRIPLE GIRDERS



ALTERNATIVE FIXING DETAIL



2@ 45 GIRDER LAMINATIONS – PREFERRED



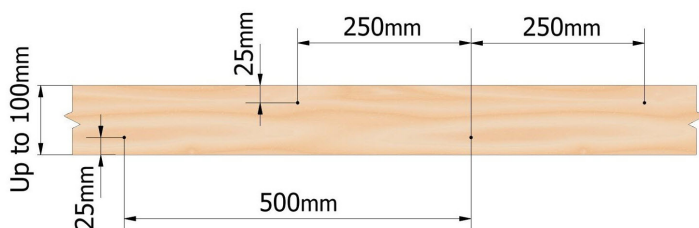
ALTERNATIVE FIXING DETAIL

NOTES:

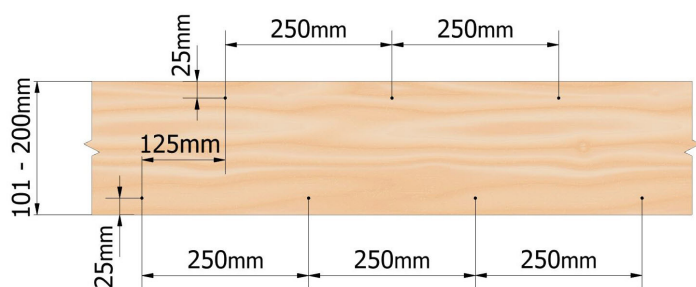
1. Nails at the Truss Boot are to be spaced 70mm (min) apart along the grain and 40 mm (min) apart across the grain. They should be as close to the Truss Boot as practical, but not further away than the depth of the member.
2. Use the details for 35 mm laminates for timber thickness between 35 and 40 mm, and the 45 mm details for timber thickness between 41 and 50 mm.
3. All screws are to be Pryda TCS12-35 (No. 12x35 mm Type 17 hex head screws) or Pryda TCS12-65.
4. For all double and triple girder trusses, the chords (top and bottom) and webs are to be nailed at:

TRUSS LAMINATION

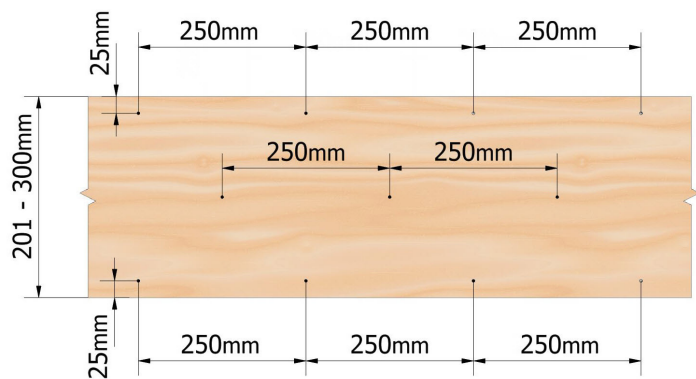
TIMBER WIDTH	NAIL ROWS & MAXIMUM SPACING
Up to 100 mm	2 rows (staggered) at 500 mm
101 - 200 mm	2 rows (staggered) at 250 mm
201 - 300 mm	3 rows (staggered) at 250 mm



Up to 100mm Chords or Webs



101mm - 200mm Chords or Webs



201mm - 300mm Chords or Webs



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PRYDA 12-35 SCREWS

PRODUCT CODE	MATERIAL	TYPE	SIZE	PACK CONFIGURATION	QUANTITY
TCS12-35/1k	Galvanised Steel	Red Hex Head 5/16 or 8mm socket size Zip Drilling Tip	12G x 35mm	1 Carton	1000
TCS12-65/1K		Black Hex Head 5/16 or 8mm socket size Zip Drilling Tip	12G x 65mm	1 Carton	1000

PRYDA WASHERS & BOLT KITS

PRODUCT CODE	MATERIAL	TYPE	PACK CONFIGURATION	SUITS PRODUCT CODES
OBK312	Hot Dipped Galvanised Steel	Bolt Kit	2 M12x65mm bolts for supported Truss 2 M12x100 bolts for supporting Truss (up to 75mm thick) 4 55x55x3mm square washers	TBJ35 TBJ35T TBJ/45 TBJ/70 TB35/12
OBK816			2/M16x110 into supported truss 4/M16x110 into supporting truss (up to 75mm thick) 6 63x5mm square washers	TB80C TB80V TBHD75 TBHD75/T

PRYDA WASHERS & BOLTS

PRODUCT CODE	MATERIAL	TYPE	DESCRIPTION	QUANTITY
OBS16/110	Hot Dipped Galvanised Steel	Bolt and nut	M16x110mm bolt and nut	75
OW12/56S		Washer	56x3mm square washers – suit M12 bolts	100
OW16/63S		Washer	63x5mm square washer – suit M16 bolts	40

IMPORTANT:

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DESIGN CAPACITIES FOR MULTI-FIX TRUSS BOOTS

Determine Truss Boot capacities in the following manner:

FOR DOWNWARD LOADS

Design capacity is the lesser of the values in Table TB1 (at Girder truss) and Table TB2 (at supported truss) for the corresponding load case.

FOR WIND UPLIFT

Design capacity is the lesser of the G-Wu values in Table TB1 (at Girder truss) and Table TB3 (at supported truss)

TABLE TB1: GIRDER TRUSS CAPACITY (DOWNWARD AND UPLIFT – DUE TO FASTENERS)

PRODUCT CODE	LOAD CASE	DESIGN CAPACITY Φ NJ (KN) - JOINT GROUP					
		JD3			JD4		
		MINIMUM GIRDER THICKNESS (MM)					
		35	45	70	35	45	70
BOLTS ONLY							
TBJ35 TBJ35/T TBJ45 TB35/12 TBJ70	G	6.9	8.9	10.3	5.1	6.5	8.6
	G + Qr	9.4	12	13.9	6.9	8.8	11.6
	G + Wd G-Wu	13.8	17.6+	17.6+	10.2	13.1	17.1
TB35/16 TB45/16	G	9.2	11.9	14	6.8	8.7	12.2
	G + Qr	12.5	16	21.1	9.2	11.8	16.5
	G + Wd	18.5	23.4+	23.4+	13.6	17.4	23.4+
	G-Wu	18.5	20.0*	20.0*	13.6	17.4	20.0*
SCREWS ONLY							
All other truss Boots	G	14.1	14.1	14.1	10	10	10
	G + Qr	19.1	19.1	19.1	13.5	13.5	13.5
	G + Wd	24.0+	24.0+	24.0+	20.1	20.1	20.1
	G-Wu	20.0*	20.0*	20.0*	20.0*	20.0*	20.0*
BOLTS & SCREWS							
TBJ35 TBJ35/T TBJ45 TB35/12 TBJ70	G	20.2	22	25.0*	15.5	17	19
	G + Qr	25.0*	25.0*	25.0*	21	22.5	25.0*
	G + Wd	25.0*	25.0*	25.0*	25.0*	25.0*	25.0*
	G-Wu	20.0*	20.0*	20.0*	20.0*	20.0*	20.0*
TB35/16 TB45/16	G	22.2	25.0*	25.0*	15.5	17	19
	G + Qr	25.0*	25.0*	25.0*	21	22.5	25.0*
	G + Wd	25.0*	25.0*	25.0*	25.0*	25.0*	25.0*
	G - Wu	20.0*	20.0*	20.0*	20.0*	20.0*	20.0*

NOTES:

1. "Screws Only" capacities for 70 mm girder trusses (double girders), the laminates of the girder truss must be fixed together in accordance with the Fixing Details for Double & Triple Girders requirements in our Hangers and Truss Boots Design Guide.

DESIGN CAPACITIES FOR MULTI-FIX TRUSS BOOTS

TABLE TB2: SUPPORTED TRUSS CAPACITY (DOWNWARD – DUE TO BEARING + FASTENERS)

PRODUCT CODE	LOAD CASE	DESIGN CAPACITY Φ NJ (KN) - JOINT GROUP:					
		JD3			JD4		
		FIXING OPTION:					
		BOLTS ONLY	SCREWS ONLY	BOLTS + SCREWS	BOLTS ONLY	SCREWS ONLY	BOLTS + SCREWS
TBJ70	G	25.0*	25.0*	25.0*	21	25.0*	25.0*
	G + Qr	25.0*	25.0*	25.0*	25.0*	25.0*	25.0*
	G + Wd	25.0*	25.0*	25.0*	25.0*	25.0*	25.0*
TBJ35 TBJ35/T	G	13.6	21.8	24.9	9.4	15.1	17.4
	G + Qr	21.5	25.0*	25.0*	14.8	22.5	25.0*
	G + Wd	25.0*	25.0*	25.0*	17	25.0*	25.0*
TBJ45	G	17.6	25.0*	25.0*	12.1	17.3	20.2
	G + Qr	25.0*	25.0*	25.0*	19.2	25.0*	25.0*
	G + Wd	25.0*	25.0*	25.0*	25	25.0*	25.0*
TB35/12	G	16	25.0*	25.0*	11.2	18.4	22.4
	G + Qr	24.8	25.0*	25.0*	17.2	25.0*	25.0*
	G + Wd	25	25.0*	25.0*	20.6	25.0*	25.0*
TB35/16	G	17.9	25.0*	25.0*	12.5	18.4	23.8
	G + Qr	25.0*	25.0*	25.0*	19	25.0*	25.0*
	G + Wd	25.0*	25.0*	25.0*	23.3	25.0*	25.0*
TB45/16	G	23.1	25.0*	25.0*	16.2	20.5	25.0*
	G + Qr	25.0*	25.0*	25.0*	25.0*	25.0*	25.0*
	G + Wd	25.0*	25.0*	25.0*	25.0*	25.0*	25.0*

NOTES:

1. Load case symbols are: (refer Hangers and Truss Boots design guide for descriptions)

G = 1.35G

G+Qr = 1.2G+1.5Qr

G+Wd = 1.2G+Wd

G-Wu = Wind uplift

- Girder timber thicknesses are minimums. Supported truss thicknesses are minimums for bolt capacity and maximums (3 mm tolerance for two nail plates) for fitting the timber into the boot. 70 mm thickness can be made from 2@ 35 mm trusses, nail or bolt laminated together as specified by the truss designer.
- Bearing + fasteners capacities above apply to standard heel joints with a 10 mm minimum square cut or non-heel ends of cut-off and mono trusses.
- The values in the table apply directly for Category 1 joints. For category 2 joints reduce the design capacity by a factor of 0.94 and for Category 3 joints reduce by a factor of 0.88.
- For other design conditions, contact a Pryda design office.
- The capacities with an asterisk (*) are governed by steel strength of the truss boot.
- The capacities with a plus sign (+) are governed by steel strength screw or bolt bearing on steel.
- Use appropriate bolt lengths:
 - Min. 100mm bolts for up to 2/35 trusses (use Pryda OBS12/100 or Pryda OBS16/110).
 - Min. 120mm bolts for up to 2/45 trusses.
 - Min. 140mm bolts for up to 3/35 trusses.

DESIGN CAPACITIES FOR MULTI-FIX TRUSS BOOTS

TABLE TB3: SUPPORTED TRUSS CAPACITY (UPLIFT- DUE TO FASTENERS)

PRODUCT CODE	THICKNESS (MM)	FIXING METHOD	DES.CAP. ΦNJ (KN) WIND UPLIFT (G-WU)	
			K1 = 1.14	
			JD3	JD4
TBJ35 TBJ35/T	35	8 screws	20.0*	18
		1/M12 bolt	5.5	4.1
		Bolt + screws	20.0*	20.0*
TBJ45	45	8 screws	20	18
		1/M12 bolt	7.1	5.2
		Bolt + screws	20.0*	20.0*
TBJ70	70	6 screws	18	13.5
		1/M12 bolt	11	8.1
		Bolt + screws	20.0*	20.0*
TB35/12 TB35/16	35	12 screws	20.0*	20.0*
		2/M12 bolts	11.1	8.1
		Bolts + screws	20.0*	20.0*
TB45/16	45	12 screws	20.0*	20.0*
		2/M12 bolts	14.2	10.5
		Bolts + screws	20.0*	20.0*

NOTES:

1. For wind uplift, take the lower of the capacities for the supported truss and girder, ie: look up both tables.
2. The values in the table apply directly for Category 1 joints. For category 2 joints reduce the design capacity by a factor of 0.94 and for Category 3 joints reduce by a factor of 0.88.
3. The capacities with '**' are governed by steel strength of the truss boot.

IMPORTANT:

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EXAMPLES

Below are examples of selecting a suitable Pryda Truss Boot based on the Design Capacities tables.

EXAMPLE 1

DESIGN DATA				
Supported truss thickness	35mm			
Supported truss timber	MGP12 dry pine (JD4)			
Girder truss thickness	45 mm			
Girder truss timber	F17 dry hardwood (JD3)			
Preferred fixing method	Screws			
DESIGN LOADS				
Load case	1.35G	G + Qr	G + Wd	G – Wu
Load (kN)	3.5	6.8	5.4	1.6

Try **TBS35**: which suits the 35 mm supported truss: Looking up tables: TB1(JD3, 45) and TB2(JD4) for: Screws only.

LOAD CASE	TB1	TB2	DESIGN	LOAD	SUIT
G =	14.1	15.1	14.1	3.5	OK
G + Qr =	19.1	20.0	19.1	6.8	OK
G + Wd =	20.0	20.0	20.0	5.4	OK
Uplift: Looking up Table TB3 for JD4 – Screws Only					
LOAD CASE	TB1	TB3	DESIGN	LOAD	SUIT
G - Wu	15.0	13.5	13.5	1.6	OK

Therefore, a **TBS35** is suitable.

EXAMPLE 2

DESIGN DATA	
Supported truss thickness	35mm
Supported truss timber	MGP12 dry pine (JD4)
Girder truss thickness	70 mm
Girder truss timber	F17 dry hardwood (JD3)
Preferred fixing method	Bolts
DESIGN LOADS	
1.35G	1.5 kN
1.2G+1.5Qr	4.8 kN
1.2G+Wd	7.3 kN
0.9G-Wu (Wind uplift)	-11.9 kN

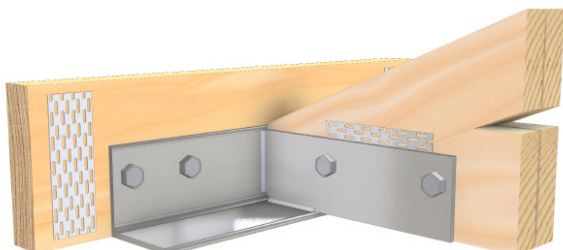
Try **TBJ35**: which suits the 35 mm supported truss: Looking up tables TB1(JD3, 70) and TB2 (JD4) for TBJ35, Bolts only.

LOAD CASE	TB1	TB2	DESIGN	LOAD	SUIT
G =	9.1	9.4	9.1	1.5	OK
G + Qr =	12.2	14.8	12.2	4.8	OK
G + Wd =	17.6	17.0	17.0	7.3	OK
LOAD CASE	TB1	TB3	DESIGN	LOAD	SUIT
G - Wu	17.6	3.6	4.1	11.9	NS
LOAD CASE	TB1	TB3	DESIGN	LOAD	SUIT
G - Wu	20.0	18.0	18.0	11.9	OK

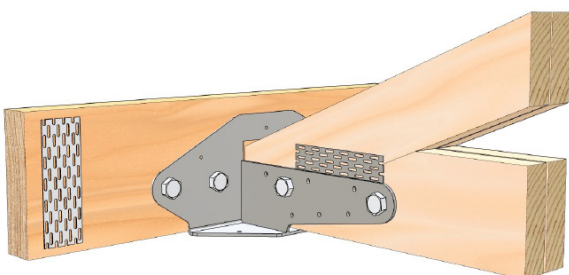
Therefore, a **TBJ35** is suitable with screw fixing of supported truss.

Truss Boots Heavy Duty

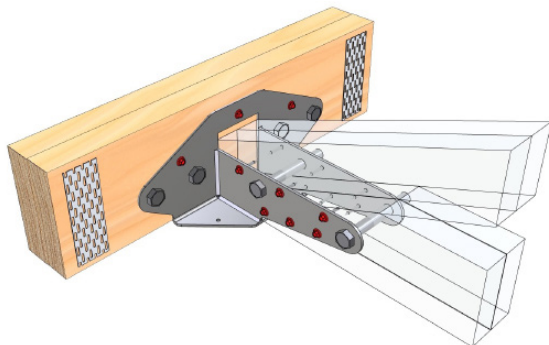
Brackets for Beam to Beam or Beam to Brickwork/Concrete Connections.



TB80 Truss Boot



TBHD75 Truss Boot



TBHD75/T Truss Boot with Twin Fin

Only suitable for Double 35mm thick supported trusses.

Features

The long anti-rotation fin and heavy duty steel of Pryda Heavy Duty Truss Boots, combined with the inherent high stiffness of the carried truss, prevents twisting of the bottom chord of the girder. Consequently, anti-rotation bars are not necessary. Useful variations of this product have welded hinges to allow for any angle (TB80V).

The TBHD75 and TBHD75/T Truss Boots have further benefits which include:

- Special shape to reduce weight, and rounded edges for easier handling.
- Improved bearing capacity for supported truss.
- A unique slot in the back of the boot to eliminate the need to cut 6-10mm from the heel of the supported truss.
- Additional screw fixings into supported trusses to improve uplift capacity, if required.
- Nail holes in the back flange to allow the boot to be easily located on the girder truss prior to drilling for bolts.
- Holes in the base to allow screw to hold any incoming angled member at ceiling level (such as a hip truss) in position. These holes are countersunk to allow flush finish if required.
- The twin-fin of TBHD75/T has been specially developed to enhance uplift capacities and meet the demands of girder to girder connections in cyclonic regions. Note: Screws are required in combination with bolts to achieve the desired uplift capacities.

Installation

Pryda Heavy Duty Truss Boots are installed with 6/ M16 bolts and with 63x4 mm square washers on all surfaces where the bolt head or nut bears directly on the timber. Anti-split Claw nailplates are to be installed central to the bolt line on both faces of the girder and on both sides of the truss boot at approx. 80mm away from the centre of the outside bolts. Refer to bolt specification in page 30 for further information.

Screws used on the TBHD75/T Truss Boot are to be Pryda TCS12-35 (No. 12x35 mm Type 17 hex head screws).

Specification

Pryda Heavy Duty Truss Boots are made to the following specification:

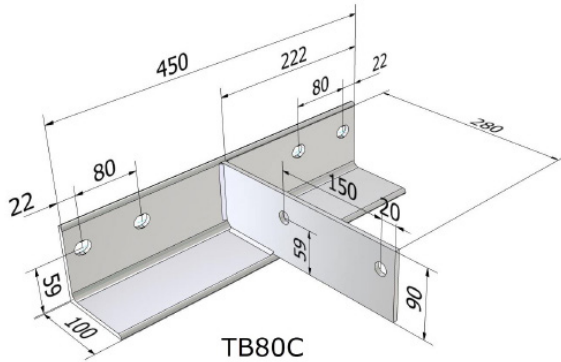
SIZES	SEE DIMENSIONS NEXT PAGE
Steel	Mild steel, hot dipped galvanized- thickness: - 5 mm for TB80 range - 4 mm for TBHD75, TBHD75/T
Product Codes	TB80C* , TB80V, TBHD75, TBHD75/T C denotes anti-rotation fin located centrally V denotes variable angle (hinged)
Packing	TBHD75 - 4 per bundle TBHD75/T - sold as singles TB80C* , TB80V - sold as singles

Important: The roof cladding (tiles, sheet steel etc) must be installed only after the truss boots are fully fixed into both the girder and supported truss, with all bolts and washers in place.

Note: TB80C is no longer available.

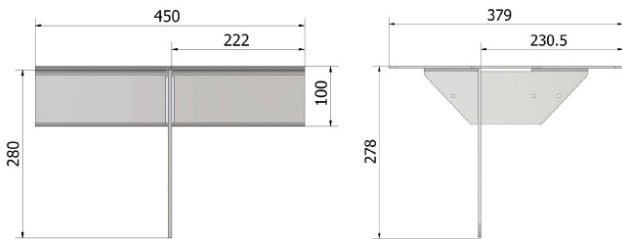
Dimensions

The dimensions of Heavy Duty Truss Boots are:



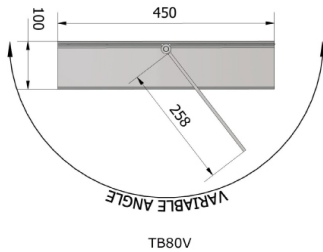
TB80C

Note: TB80C is no longer available.

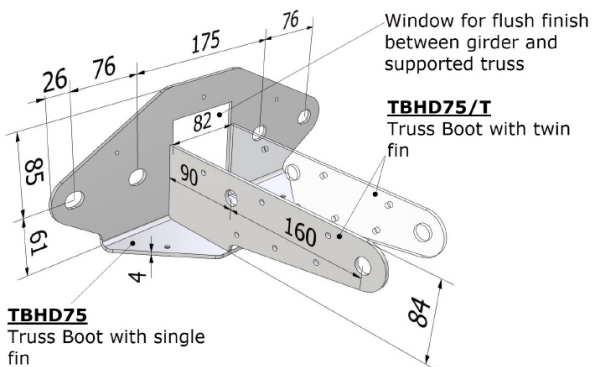


TB80C

TBHD75



TB80V



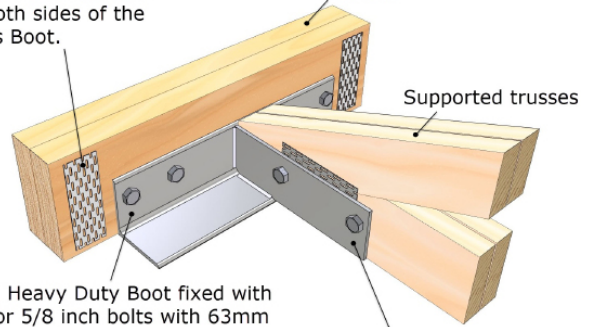
TBHD75
Truss Boot with single fin

TBHD75/T
Truss Boot with twin fin

Applications

Anti-split plates are required on both faces of each laminate and on both sides of the Truss Boot.

Bottom chord of girder truss : Min. depth 130mm



Pryda Heavy Duty Boot fixed with M16 or 5/8 inch bolts with 63mm square washers on back faces only :

- *Girder Truss : 4 bolts
- *Supported Truss : 2 bolts

Anti-rotation leg of Truss Boot



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DESIGN CAPACITIES FOR HEAVY DUTY TRUSS BOOTS

SINGLE FIN TRUSS BOOTS - TBHD75/TB80C*/TB80V

DESIGN CAPACITIES (KN) FOR VARYING LOAD CASES AND SUPPORTED TRUSS JOINT GROUPS													
GIRDER TRUSS THICKNESS (MM)	SUPPORTED TRUSS THICKNESS (MM)	SUPPORTED TRUSS = JD5				SUPPORTED TRUSS = JD4				SUPPORTED TRUSS = JD3			
		1.35G (DEAD ONLY)	1.2G+1.5Q (DEAD +LIVE)	WIND UPLIFT		1.35G (DEAD ONLY)	1.2G+1.5Q (DEAD +LIVE)	WIND UPLIFT		1.35G (DEAD ONLY)	1.2G+1.5Q (DEAD +LIVE)	WIND UPLIFT	
				BOLTS ONLY	BOLTS+SCREWS			BOLTS ONLY	BOLTS+SCREWS			BOLTS ONLY	BOLTS+SCREWS
JD4 GIRDER TRUSS BOTTOM CHORD OF MINIMUM 130MM DEPTH (E.G: MGP12, MGP15, HYCHORD, E-BEAM ETC)													
35	35	13.6	18.3	7.8	15.8	12	16.2	10.9	22.2	13.6	18.3	14.8	24
	2/35	13.6	18.3	15.6	23.6	13.6	18.3	21.7	27.2	13.6	18.3	27.1	27.1
45	35	14.5 ⁽¹⁾	22.3 ⁽¹⁾	6.9	14.9	15.3	20.8	10.9	22.2	17.4	23.6	14.8	30.0 ⁽²⁾
	2/35	17.4	23.6	15.6	23.6	17.4	23.6	21.7	30.0 ⁽²⁾	17.4	23.6	29.5	30.0 ⁽²⁾
2/35	35	14.5 ⁽¹⁾	22.3 ⁽¹⁾	6.9	14.9	17.3 ⁽¹⁾	28.3 ⁽¹⁾	10.9	22.2	24.3	33	14.8	29
	2/35	24.4	33	15.6	23.6	24.4	33	21.7	30.0 ⁽²⁾	24.4	33	29.5	30.0 ⁽²⁾
3/35	35	14.5 ⁽¹⁾	22.3 ⁽¹⁾	6.9	14.9	17.3 ⁽¹⁾	28.3 ⁽¹⁾	10.9	22.2	24.3 ⁽¹⁾	35.6	14.8	29
	2/35	26.4	35.6	15.6	23.6	26.4	35.6	21.7	30.0 ⁽²⁾	26.4	35.6	29.5	30.0 ⁽²⁾
JD3 GIRDER TRUSS BOTTOM CHORD OF MINIMUM 130MM DEPTH (E.G: F17, E-BEAM+ ETC)													
35	35	14.5 ⁽¹⁾	22.3 ⁽¹⁾	7.8	15.8	17.3 ⁽¹⁾	28.3 ⁽¹⁾	10.9	20.9	18.5	24.9	14.8	30.0 ⁽²⁾
	2/35	18.5	24.9	15.6	23.6	18.5	24.9	21.7	30.0 ⁽²⁾	18.5	24.9	29.5	30.0 ⁽²⁾
45	35	14.5 ⁽¹⁾	22.3 ⁽¹⁾	6.9	14.9	17.3 ⁽¹⁾	28.3 ⁽¹⁾	10.9	22.2	23.7	32	14.8	30.0 ⁽²⁾
	2/35	23.7	32	15.6	23.6	23.7	32	21.7	30.0 ⁽²⁾	23.7	32	29.5	30.0 ⁽²⁾
2/35	35	14.5 ⁽¹⁾	22.3 ⁽¹⁾	6.9	14.9	17.3 ⁽¹⁾	28.3 ⁽¹⁾	10.9	22.2	24.3	40.0 ⁽²⁾	14.8	29
	2/35	28.8	40.0 ⁽²⁾	15.6	23.6	27.1 ⁽¹⁾	40.0 ⁽²⁾	21.7	30.0 ⁽²⁾	31.6	40.0 ⁽²⁾	29.5	30.0 ⁽²⁾
3/35	35	14.5 ⁽¹⁾	22.3 ⁽¹⁾	6.9	14.9	17.3 ⁽¹⁾	28.3 ⁽¹⁾	10.9	22.2	24.3 ⁽¹⁾	40.0 ⁽²⁾	14.8	29
	2/35	28.8	40.0 ⁽²⁾	15.6	23.6	27.1 ⁽¹⁾	40.0 ⁽²⁾	21.7	30.0 ⁽²⁾	31.6	40.0 ⁽²⁾	29.5	30.0 ⁽²⁾

Update: TB80C is no longer available.

NOTES:

- The above capacities (except Bolts+Screws) are valid for TB80C and TB80V truss boots. See note (3) for steel limits.
- The values with a superscript (1) refers to the design capacities that are limited by bearing- i.e crushing of the supported truss against the seat of the truss boot.
- The values (30 kN) with a superscript (2) refers to the capacities that are limited by steel strength of TBHD75 in uplift. The limiting steel value for downward loading is 40 kN. The limiting steel value for TB80V equals 26 kN (downward loads) and 18.0 kN (uplift).
- 2/35 refers to 35mm thick double laminated truss and 3/35 refers to 35mm thick triple laminated truss.
- The values in the table apply directly for Category 1 joints. For category 2 joints reduce the design capacity by a factor of 0.94 and for Category 3 joints reduce by a factor of 0.88.
- The values related to 1.35G (Dead only) load case should be checked against reactions arising from 1.35G load case. Similarly 1.2G+1.5Q (Dead + Roof Live) capacities should be checked against factored reactions from 1.2G+1.5Q load case.
- A 120mm deep bottom chord for girder trusses may be used when supporting concrete tile roofs in low wind areas (up to N2 wind class) where wind uplift is not critical or when the truss boot is located at a panel point.
- It is important to use the specified washer (63 x 5 square) against the timber face to achieve full capacity of M16 bolts.

DESIGN CAPACITIES FOR HEAVY DUTY TRUSS BOOTS

DOUBLE FIN TRUSS BOOTS - TBHD75/T (SUITABLE ONLY FOR DOUBLE 35MM SUPPORTED TRUSSES)

DESIGN CAPACITIES (KN) FOR VARYING LOAD CASES AND SUPPORTED TRUSS JOINT GROUPS													
GIRDER TRUSS THICKNESS (MM)	SUPPORTED TRUSS THICKNESS (MM)	SUPPORTED TRUSS = JD5				SUPPORTED TRUSS = JD4				SUPPORTED TRUSS = JD3			
		1.35G (DEAD ONLY)	1.2G+1.5Q (DEAD +LIVE)	WIND UPLIFT		1.35G (DEAD ONLY)	1.2G+1.5Q (DEAD +LIVE)	WIND UPLIFT		1.35G (DEAD ONLY)	1.2G+1.5Q (DEAD +LIVE)	WIND UPLIFT	
				BOLTS ONLY	BOLTS+ SCREWS			BOLTS ONLY	BOLTS+ SCREWS			BOLTS ONLY	BOLTS+ SCREWS
JD4 GIRDER TRUSS BOTTOM CHORD OF MINIMUM 130MM DEPTH (E.G: MGP12, MGP15, HYCHORD, E-BEAM ETC)													
35	2/35	13.6	18.3	15.6	27.2 ⁽³⁾	13.6	18.3	21.7	27.2 ⁽³⁾	13.6	18.3	27.2 ⁽³⁾	27.2 ⁽³⁾
45	2/35	17.4	23.6	15.6	32.6	17.4	23.6	21.7	34.9 ⁽³⁾	17.4	23.6	29.5	34.9 ⁽³⁾
2/35	2/35	24.4	33	15.6	32.6	24.4	33	21.7	45.7	24.4	33	29.5	48.8 ⁽³⁾
3/35	2/35	26.4	35.6	15.6	32.6	26.4	35.6	21.7	45.7	26.4	35.6	29.5	50.0 ⁽²⁾
JD3 GIRDER TRUSS BOTTOM CHORD OF MINIMUM 130MM DEPTH (E.G: F17, E-BEAM+ ETC)													
35	2/35	18.5	24.9	15.6	32.6	18.5	24.9	21.7	36.9 ⁽³⁾	18.5	24.9	29.5	36.9 ⁽³⁾
45	2/35	23.7	32	15.6	32.6	23.7	32	21.7	45.7	23.7	32	29.5	47.4 ⁽³⁾
2/35	2/35	28.8	42.7	15.6	32.6	28.8	42.7	21.7	45.7	28.8	42.7	29.5	50.0 ⁽²⁾
3/35	2/35	28.8	42.7	15.6	32.6	28.8	42.7	21.7	45.7	28.8	42.7	29.5	50.0 ⁽²⁾

NOTES:

- 2/35 refers to 35mm thick double laminated truss and 3/35 refers to 35mm thick triple laminated truss.
- The values (50 kN) with a superscript (2) refers to the capacities that are limited by steel strength of TBHD75/T in uplift. The limiting steel value for "down-loading" is 50 kN.
- Uplift Capacities - The values with a superscript (3) are limited by 4/M16 bolt fixings in girder truss. U.N.O in Notes 2 and 3, fixing into supported truss governs for UPLIFT.
- The values in the table apply directly for Category 1 joints. For category 2 joints reduce the design capacity by a factor of 0.94 and for Category 3 joints reduce by a factor of 0.88.
- The values related to 1.35G (Dead only) load case should be checked against reactions arising from 1.35G load case. Similarly 1.2G+1.5Q (Dead + Roof Live) capacities should be checked against factored reactions from 1.2G+1.5Q load case.
- A 120mm deep bottom chord for girder trusses may be used when supporting concrete tile roofs in low wind areas (up to N2 wind class) where wind uplift is not critical or when the truss boot is located at a panel point.
- It is important to use the specified washer (63 x 5 square) against the timber face to achieve full capacity of M16 bolts. Required only against Girder truss when using TBHD75/T.

IMPORTANT:

READ THIS DATASHEET IN CONJUNCTION WITH PRYDA HANGERS & TRUSS BOOTS DESIGN GUIDE AND REFER TO ESSENTIAL NOTES AND GENERAL NOTES.

DESIGN CAPACITIES FOR HEAVY DUTY TRUSS BOOT UPLIFT REINFORCEMENT

Where necessary, TB80 and TBHD75 truss boots can be reinforced to provide additional uplift resistance as follows:

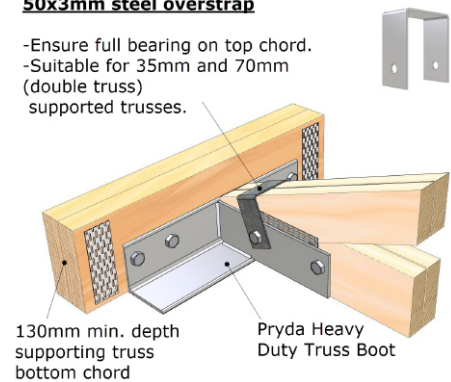
UPLIFT CAPACITY (KN) FOR TIMBER JOINT GROUP & STRENGTH GROUP						
SUPP. THICK.	J4 (S6)	J3 (S4)	J2 (S3)	JD5 (SD7)	JD4 (SD6)	JD3 (SD5)
35	11.5	18.3	25.2	13.9	18.3	25.2
70	20.6	31.4	35.0	21.4	26.7	35.0

NOTES:

1. The capacities for details with the overstrap, are limited by either 4@ M16 bolts bearing on carrying truss or based on Details TD-06/ TD-07 published by TRADAC (December 2000). For these tabulated capacities, the bolt through the over-strap must be installed through or above the heel joint nailplates.
2. The bottom chord of carrying (girder) truss shall be a minimum of 130 mm deep. A 120mm deep bottom chord for girder trusses may be used provided the truss boot is located at a panel point or when uplift capacity is not critical
3. Fix the over-angle to the TB80 or TBHD75 with the M16 H.S bolt and nut used for fixing the Truss Boot to the supported truss. Install 63x5 mm square washers where the bolt or nut bears directly onto timber.

50x3mm steel overstrap

- Ensure full bearing on top chord.
- Suitable for 35mm and 70mm (double truss) supported trusses.



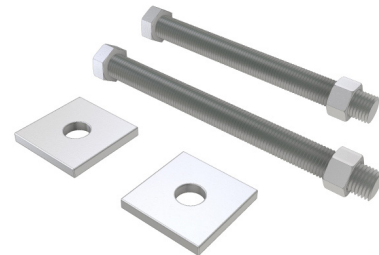
BOLT SPECIFICATIONS

Hot dipped galvanised Kits of bolts, nuts and washers are available to suit all bolt fixed truss boots. Details are:

PRODUCT CODE	OBK312	OBK316	OBK816
To suit	TBJ35/45/70 TB35/12	TB35/16 TB45/16	TB80 TBHD75
Packed	80	80	60
Bolts (mm)	2/M12x65 into supported truss 2/M12x100 into supporting truss (up to 2/35mm thk)	2/M12x65 into supported truss 2/M16x110 into supporting truss (up to 2/35mm thk)	2/M16x110 into supported truss 4/M16x110 into supporting truss (up to 2/35mm thk)
Washers (square)	4/55x3	2/55x3 2/63x5	6/63x5

NOTES:

1. Adopt the following bolt specification for supported truss thickness that are not included above. All bolts shall be commercial hex-head, Class 4.6 to AS 1111-2000 or high strength Class 8.8 to AS1252-1996. Cup-head bolts are not acceptable
 Min. 130mm long bolts for up to 2/45 trusses
 Min. 150mm long bolts for up to 3/35 trusses

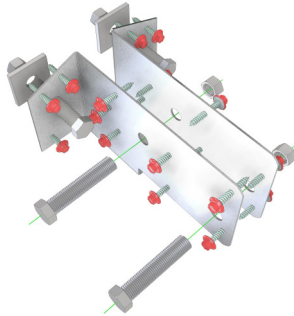


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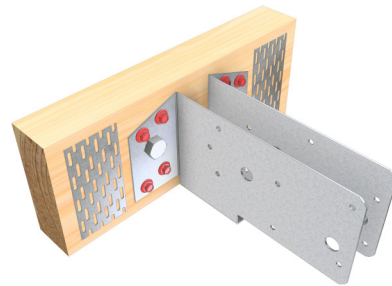
INSTALLATION

STEP 1



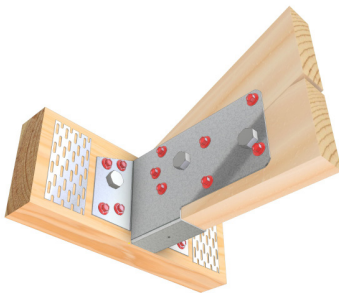
- Refer to the specification table on page 2 to gather the correct fasteners for the Truss Boot including the correct washer size when using bolts.

STEP 2



- Always fix to the supporting truss first, if the supporting girder truss is double or triple laminated, ensure the lamination connection method is adequate.
- Refer to our Hangers and Truss Boots design guide for details on appropriate girder lamination fixings.

STEP 3



- Position the truss boot so the bottom sits flush with the bottom of the supporting truss.
- Fix Truss Boot using the fasteners required to achieve the desired capacity.

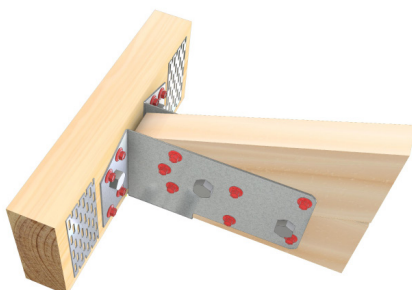
STEP 4



- If fixing with bolts and the timber is prone to splitting, fix anti split claw plates on either side of the truss boot and both face of the supporting truss for a total of 4 plates as illustrated above and in step 3.

CHORD WIDTH (MM)	90	120,140	170,190
Anti-split Plate Code	3C2	4C2	6C2

STEP 5



- Fit the incoming member ensuring it is tight up against supporting truss.
- The gap between the end of the supported truss and the supporting truss should be no more than 5mm.

IMPORTANT

- The roof cladding (tiles, sheet steel etc) must be installed only after the truss boots are fully fixed into both the girder and supported truss, with all fasteners fully installed. i.e. Screws, Bolt assemblies etc.