

# NZ CONCEALED PURLIN CLEATS

**CodeMark**   
CMNZ-10031

Strong and rigid connection frequently used to connect trusses/rafters to beams and wall plates.

## FEATURES AND BENEFITS

**SIMPLE:** Can also be used to connect wall plates to studs.

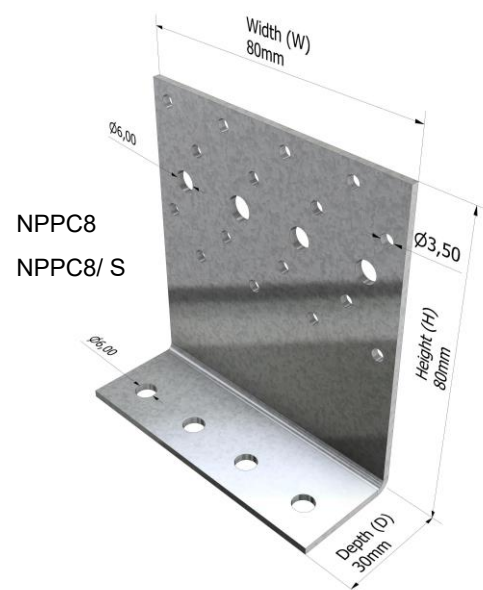
**FAST:** Can be fixed with nails or screws.

**DURABLE:** 2mm G300 Z275 Galvanised Steel or Stainless Steel 304.

## SPECIFICATIONS

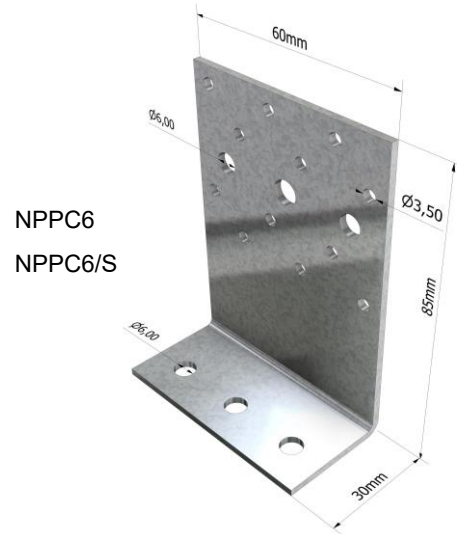
<b>PRODUCT CODE</b>	NPPC4, NPPC6, NPPC8, NPPC4/S, NPPC6/S, NPPC8/S
<b>STEEL</b>	G300 or Stainless Steel 304
<b>THICKNESS</b>	2mm
<b>CORROSION RESISTANCE</b>	Z275 or Stainless Steel 304
<b>FASTENERS REQUIRED</b>	Pryda 12G x 35mm Timber Connector Screws. Pryda 35 x 3.15mm Timber Connector Nails. 14G x 75mm Type 17 Hex Head Screws.
<b>HEIGHT</b>	80-85mm
<b>WIDTH</b>	40mm,60mm,80mm
<b>DEPTH</b>	30mm

At the time of print, this product is NOT subject to any known warnings and bans found in Building Act 2004.



\*All dimensions shown are in "mm."

## NZ CONCEALED PURLIN CLEATS DATA SHEET



## NZ CONCEALED PURLIN CLEATS

PRODUCT CODE	MATERIAL	THICKNESS mm	WIDTH (W) mm	HEIGHT (H) mm	DEPTH (D) mm
NPPC4	G300 Z275 Galvanised Steel	2	40	80	30
NPPC6		2	60	85	30
NPPC8		2	80	85	30
NPPC4/S	Stainless Steel 304	2	40	80	30
NPPC6/S		2	60	85	30
NPPC8/S		2	80	85	30

## DURABILITY

The following table provides an easy guide when selecting a Pryda product corrosion protection finish that will meet and exceeds NZS 3604:2011 Table 4.1.

ZONE	LOCATION		ENVIRONMENT	PRODUCT
All Zones	Fully enclosed walls, floors, and roof spaces		Closed	Pryda Zinc Coated Products Z275
Zones B and C	All subfloor fastenings more than 600mm above the ground	Vented 7000mm <sup>2</sup> /m <sup>2</sup> or LESS	Sheltered	Pryda Stainless Steel 304 Products <sup>(3)</sup>
		Vented MORE than 7000mm <sup>2</sup> /m <sup>2</sup>	Exposed	Pryda Stainless Steel 304 Products <sup>(3)</sup>
	All subfloor fastenings within 600mm of the ground	Sheltered and Exposed		Pryda Stainless Steel 304 Products <sup>(3)</sup>
	All other structural fixings	Sheltered		Pryda Stainless Steel 304 Products <sup>(3)</sup>
Exposed		Pryda Stainless Steel 304 Products <sup>(3)</sup>		
Zone D	All structural fixings	Sheltered and Exposed		Pryda Stainless Steel 304 Products <sup>(3)</sup>

Notes:

- 1.All Pryda galvanised products comply with NZS3604:2011 Table 4.2.
- 2.Refer to NZS3604:2011 for all environment definitions.
- 3.Routine inspection and cleaning using soap and fresh warm water is an integral part of the ongoing care and maintenance of stainless steel to preserve its appearance.

## STORAGE AND HANDLING

Prior to use, the Pryda products shall be stored in a weatherproof environment and protected from moisture. Care must be taken to avoid any damage to the surface of the product protective galvanised coating and profile that may impact the performance.

## COMPLIES WITH THE FOLLOWING PROVISIONS OF THE NEW ZEALAND BUILDING CODE (NZBC)

**Clause B1 STRUCTURE:** Performance B1.3.1, B1.3.2 and B1.3.4. Loads arising from self-weight, imposed gravity loads arising from use, earthquake, snow, and wind. (i.e., B1.3.3 (a), (b), (f), (g), and (h)). Only some may apply for a specific use of the component.

**Clause B2 DURABILITY:** Performance B2.3.1 (a) not less than 50 years and B2.3.2.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1.

## APPLICATION AND SCOPE OF USE

Pryda Concealed Purlin Cleats (NPP) are certified when used and installed in accordance with the product datasheet shown connection details. Pryda fasteners approved for the installation form an integral part of the connection and therefore should be used with all Pryda products installation unless otherwise approved by a certified structural Engineer. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS 3604:2011 Table 4.1. (Refer to Durability section for more details). Fastener material type shall match the selected Pryda product. i.e., Galvanised fasteners with galvanised products. Stainless Steel fasteners with stainless steel products.

## DESIGN CAPACITIES

For truss tie-down application, it is assumed that the wall plate, and its fixings to studs, are adequate in its own right, to resist design loads given in the table. Minimum single plate thickness 35mm. Minimum double plate thickness 70mm.

### NPPC8 SHORT FLANGE FIXING:

Double 45mm wall plates – 4 x 14G x 75mm Type 17 Hex Head Screws (Galvanised or Stainless Steel)

### NPPC8 LONG FLANGE – NAIL AND SCREW OPTIONS

Using 12 x Pryda 35 x 3.15mm Timber Connector Nails. Code: OSNGB (Galvanised) or OSNBCI/SS (Stainless Steel)

OR

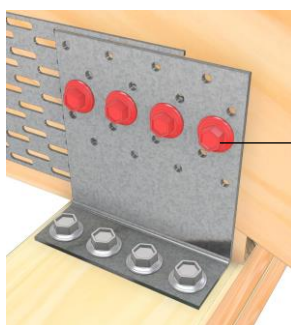
Using 4 x Pryda 12G x 35mm Timber Connector screws. Code: TCS12-35(Galvanised) or HH1235SS (Stainless Steel)

NPPC8 (Galvanised)		
JOINT GROUP OF TRUSS CHORD OR STUD	UPLIFT CAPACITY (kN) FOR A SINGLE CLEAT	
	12 x Pryda Timber Connector Nails	4 x Pryda Timber Connector Screws
JD5	3.75	6.8
PAIR OF NPPC8 (Galvanised)		
JD5	7.5	13.6

NPPC8/S (Stainless Steel)		
JOINT GROUP OF TRUSS CHORD OR STUD	UPLIFT CAPACITY (kN) FOR A SINGLE CLEAT	
	12 x Pryda Timber Connector Nails	4 x Pryda Timber Connector Screws
JD5	3.75	5.3
PAIR OF NPPC8/S (Stainless Steel)		
JD5	7.5	10.6

#### Notes:

- 1.Design values are based on SG8 timber and for timber which meets minimum JD5 timber as defined in AS/NZS 1720.
- 2.Limit State Design capacities are shown in table to resist Wind Uplift.
- 3.Fastener material type shall match the selected Pryda product. i.e., Galvanised fasteners with galvanised products. Stainless Steel fasteners with stainless steel products.



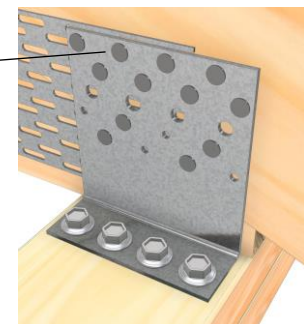
4 x Pryda 12G x 35mm Timber Connector screws.

4 x Pryda 12G x 35mm Timber Connector screws.

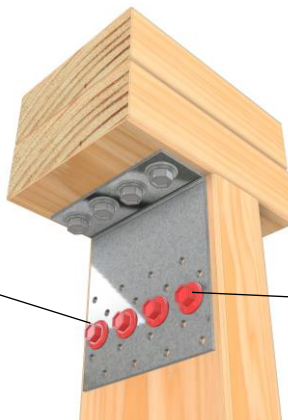
OR

12 x Pryda 35 x 3.15mm Timber Connector Nails. (Not Shown)

12 x Pryda 35 x 3.15mm Timber Connector Nails



4 x 14G x 75mm Type 17 Hex Head screws.



**NPPC6 SHORT FLANGE FIXING:**

Double 45mm wall plates - 3 x 14G x 75mm Type 17 Hex Head Screws. (Galvanised or Stainless Steel)

**NPPC6 LONG FLANGE – NAIL OPTION**

Using 12 x Pryda 35 x 3.15mm Timber Connector Nails. Code: OSNGB (Galvanised) or OSNBCI/SS (Stainless Steel)

OR

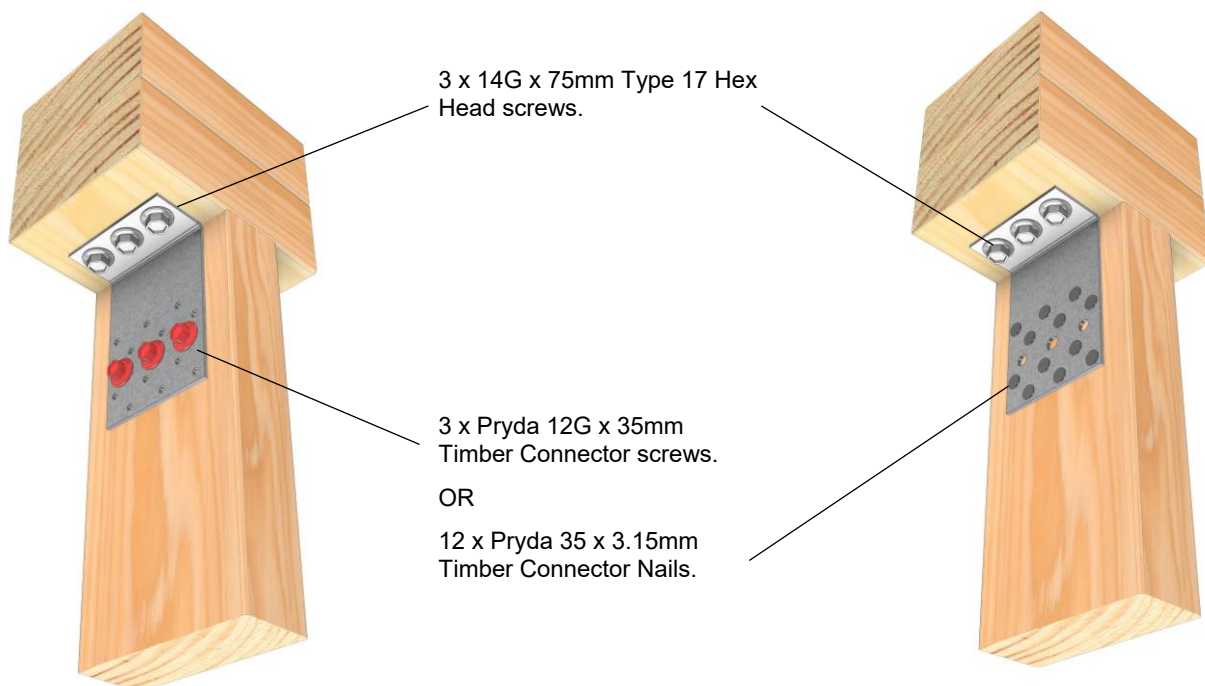
Using 3 x Pryda 12G x 35mm Timber Connector Screws. Code: TCS12-35(Galvanised) or HH1235SS (Stainless Steel)

NPPC6 (Galvanised)		
JOINT GROUP OF TRUSS CHORD OR STUD	UPLIFT CAPACITY (kN) FOR A SINGLE CLEAT	
	12 x Pryda Timber Connector Nails	3 x Pryda Timber Connector Screws
JD5	3.75	5.8
PAIR OF NPPC6 (Galvanised)		
JD5	7.5	11.6

NPPC6/S (Stainless Steel)		
JOINT GROUP OF TRUSS CHORD OR STUD	UPLIFT CAPACITY (kN) FOR A SINGLE CLEAT	
	12 x Pryda Timber Connector Nails	3 x Pryda Timber Connector Screws
JD5	3.75	4.7
PAIR OF NPPC6/S (Stainless Steel)		
JD5	7.5	9.5

**Notes:**

- 1.Design values are based on SG8 timber and for timber which meets minimum JD5 timber as defined in AS/NZS 1720.
- 2.Limit State Design capacities are shown in table to resist **Wind Uplift**.
- 3.Fastener material type shall match the selected Pryda product. i.e., Galvanised fasteners with galvanised products. Stainless Steel fasteners with stainless steel products.



**NPPC4 SHORT FLANGE FIXING:**

Double 45mm wall plates - 2 x 14G x 75mm Type 17 Hex Head Screws. (Galvanised or Stainless Steel)

**NPPC4 LONG FLANGE – NAIL OPTION**

Using 8 x Pryda 35 x 3.15mm Timber Connector Nails. Code: OSNGB (Galvanised) or OSNBCI/SS (Stainless Steel)

OR

Using 2 x Pryda 12G x 35mm Timber Connector Screws. Code: TCS12-35(Galvanised) or HH1235SS (Stainless Steel)

NPPC4 (Galvanised)		
JOINT GROUP OF TRUSS CHORD OR STUD	UPLIFT CAPACITY (kN) FOR A SINGLE CLEAT	
	8 x Pryda Timber Connector Nails	2 x Pryda Timber Connector Screws
JD5	2.5	3.3
PAIR OF NPPC4 (Galvanised)		
JD5	5	6.5

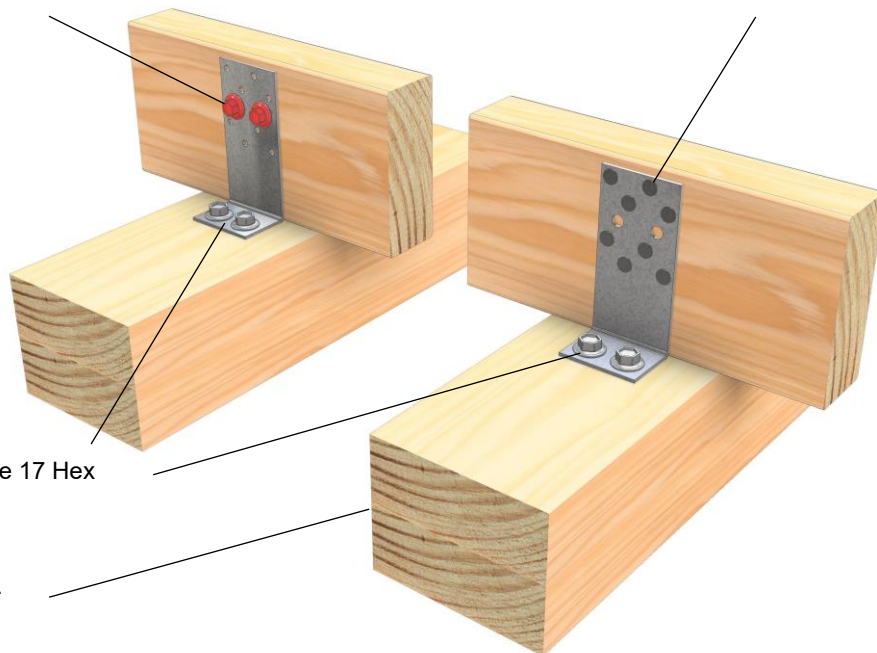
NPPC4/S (Stainless Steel)		
JOINT GROUP OF TRUSS CHORD OR STUD	UPLIFT CAPACITY (kN) FOR A SINGLE CLEAT	
	8 x Pryda Timber Connector Nails	2 x Pryda Timber Connector Screws
JD5	2.5	3.2
PAIR OF NPPC4/S (Stainless Steel)		
JD5	5	6.4

**Notes:**

- 1.Design values are based on SG8 timber and for timber which meets minimum JD5 timber as defined in AS/NZS 1720.
- 2.Limit State Design capacities are shown in table to resist Wind Uplift.
- 3.Fastener material type shall match the selected Pryda product. i.e., Galvanised fasteners with galvanised products. Stainless Steel fasteners with stainless steel products.

2 x Pryda 12G x 35mm  
Timber Connector Screws.

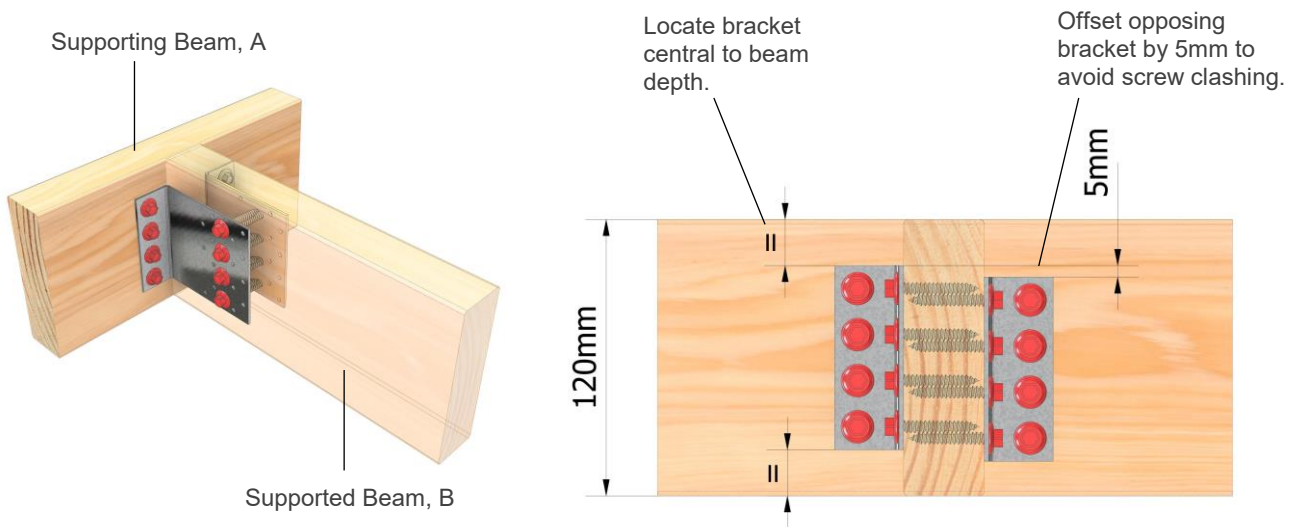
8 x Pryda 35 x 3.15mm  
Timber Connector Nails.



2 x 14G x 75mm Type 17 Hex  
Head screws.

Double 45mm plates.

## PAIR OF NPPC8 AS JOIST / RAFTER SUPPORT



NPPC8 ALWAYS USED IN PAIRS	
LOAD CASE	DESIGN CAPACITIES ( $\Phi_{N_j}$ ) IN kN PER PAIR OF BRACKETS
	PRYDA 12G x 35mm Timber Connector Screws
	8 screws to Supporting Beam A
	8 screws to Supported Beam B
	JD5
1.35G	3.4
1.2G + 1.5Qf	4.2
1.2G + 1.5Qr	4.6
1.2G + Wd or Wind uplift	6.9

Notes:

- Beam A (Supporting Beam) and Beam B (Supported Beam) must be a minimum 120mm deep to achieve above screw capacities.
- NPPC8 must be used in PAIRS.
- Supported joist must be supported on both ends. Connection is not suitable for cantilever support.
- Brackets supports variable widths. The designer should limit width to prevent eccentric loading on the bracket.
- Design capacities applies for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets JD5 timber as defined in AS/NZS 1720 for both supporting and supported beam.
- Multiple Laminated Supporting Beams:** Fasteners with longer lengths are required when NPPC8 brackets are fixed into a multiple laminated supporting beam. For double 45mm laminates, use 14G x 75mm Type 17 Hex Head long screws. Alternatively, for double or triple laminated supporting beams, additional fixings may be provided at hanger locations to laminate plies. Seek advice from the consulting project Engineer.  
  
Pryda CODEMARK certificate CMNZ10031 certifies Pryda NPPC8 with use of NZ Pryda Timber Connector Nails. Other fixing methods are outside the scope of the CODEMARK.
- Gap between Supported and Supporting Beams.** A maximum gap of 3mm is permitted without impeding on the design capacities. Seek advice from a Pryda engineer for treatment of larger gaps.

Contact details	
Manufacture location	New Zealand
Legal and trading name of manufacturer	Kimberly Tool & Design (NZ) Limited
Legal and trading name of supplier	Pryda New Zealand -a Division of ITW New Zealand
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Supplier phone number	0800 88 22 44
Supplier NZBN	9429039833129