

NZ CYCLONE STRAPS



Strong tie down suitable for connecting purlins to roof trusses or roof trusses to the wall frame.

FEATURES AND BENEFITS

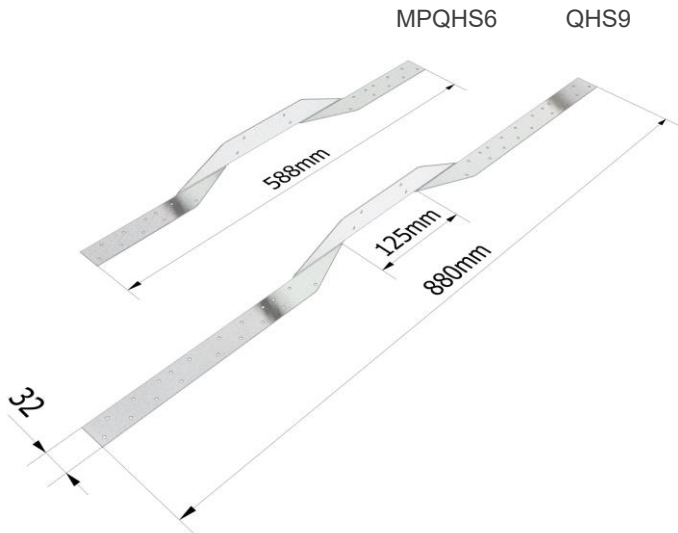
- SIMPLE:** Quick and easy to install.
- FAST:** Multiple lengths and can be doubled up for even more capacity.
- DURABLE:** Made from G300 Z275 steel.

SPECIFICATIONS

PRODUCT CODE	MPQHS6, QHS9
STEEL	G300
THICKNESS	0.95mm
CORROSION RESISTANCE	Z275
FASTENER	Pryda 35 x 3.15mm Timber Connector Nails
PRODUCT DIMENSION	588mm and 880mm



QHS6 shown with fold facing inwards. Outward facing is also acceptable.



*All dimensions shown are in "mm".

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

CYCLONE STRAPS

PRODUCT CODE	MATERIAL	THICKNESS (mm)	LENGTH (mm)	QUANTITY
MPQHS6	G300 Z275 Galvanised Steel	0.95	588	80
QHS9			880	25

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.

Pryda Cyclone Straps are only available in Z275, therefore suitable for “Closed” environment.

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 ² /m ² or LESS	Sheltered	Pryda Stainless Steel 304 Products ⁽³⁾
		Vented MORE than 7000mm ² /m ²	Exposed	Pryda Stainless Steel 304 Products ⁽³⁾
	All subfloor fastenings within 600mm of the ground	Sheltered and Exposed		Pryda Stainless Steel 304 Products ⁽³⁾
	All other structural fixings	Sheltered		Pryda Stainless Steel 304 Products ⁽³⁾
Exposed		Pryda Stainless Steel 304 Products ⁽³⁾		
Zone D	All structural fixings	Sheltered and Exposed		Pryda Stainless Steel 304 Products ⁽³⁾

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

DESIGN CAPACITIES – WIND UPLIFT

NAILS PER LEG	DESIGN CAPACITY (fNJ) (kN) FOR TIMBER JOINT GROUP USING ANY CYCLONE STRAP FOR FACE FIX CONNECTION (Fig 1)	
	JD5 ⁽⁴⁾	
2	4.8	
3	7.3	
4	9.7	
INCREASED CAPACITIES FOR STRAPS THAT ARE WRAPPED AROUND; MINIMUM 4 NAILS PER LEG⁽²⁾ (Fig 2 or Fig 3)		
QHS6, QHS9	13	

Notes:

1. These design capacities apply to Pryda Cyclone Straps fixed at both ends with Pryda 35 x 3.15mm Timber Connector Nails or equivalent. For machine driven nails, refer to section “Fastening Cyclone Straps”

Pryda CODEMARK certificate CMNZ10029 certifies Pryda Cyclone Straps with use of NZ Pryda Timber Connector Nails. Other fixing methods are outside the scope of the CODEMARK.

2. When the strap is wrapped around the wall plate or other timber member and fixed with 4 nails per leg driven into the underside of the top plate, the capacity is limited by the steel. Tests have proven that bending the legs of Cyclone Straps around the timber increases the ultimate load the strap can carry.

3. Limit State Design capacities are shown in table to resist Wind Uplift.

4. Design values are based on SG8 timber and meets minimum JD5 timber as defined in AS/NZS 1720.

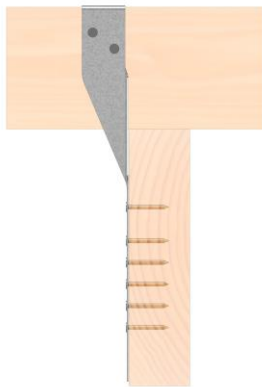


Figure 1

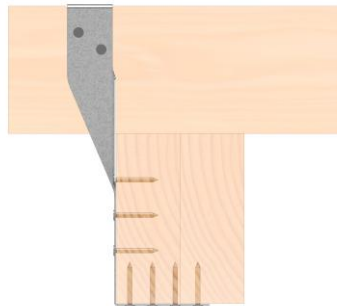


Figure 2

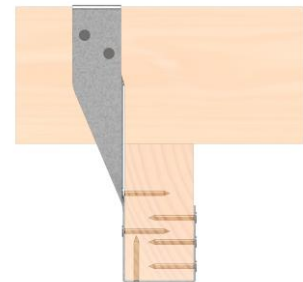
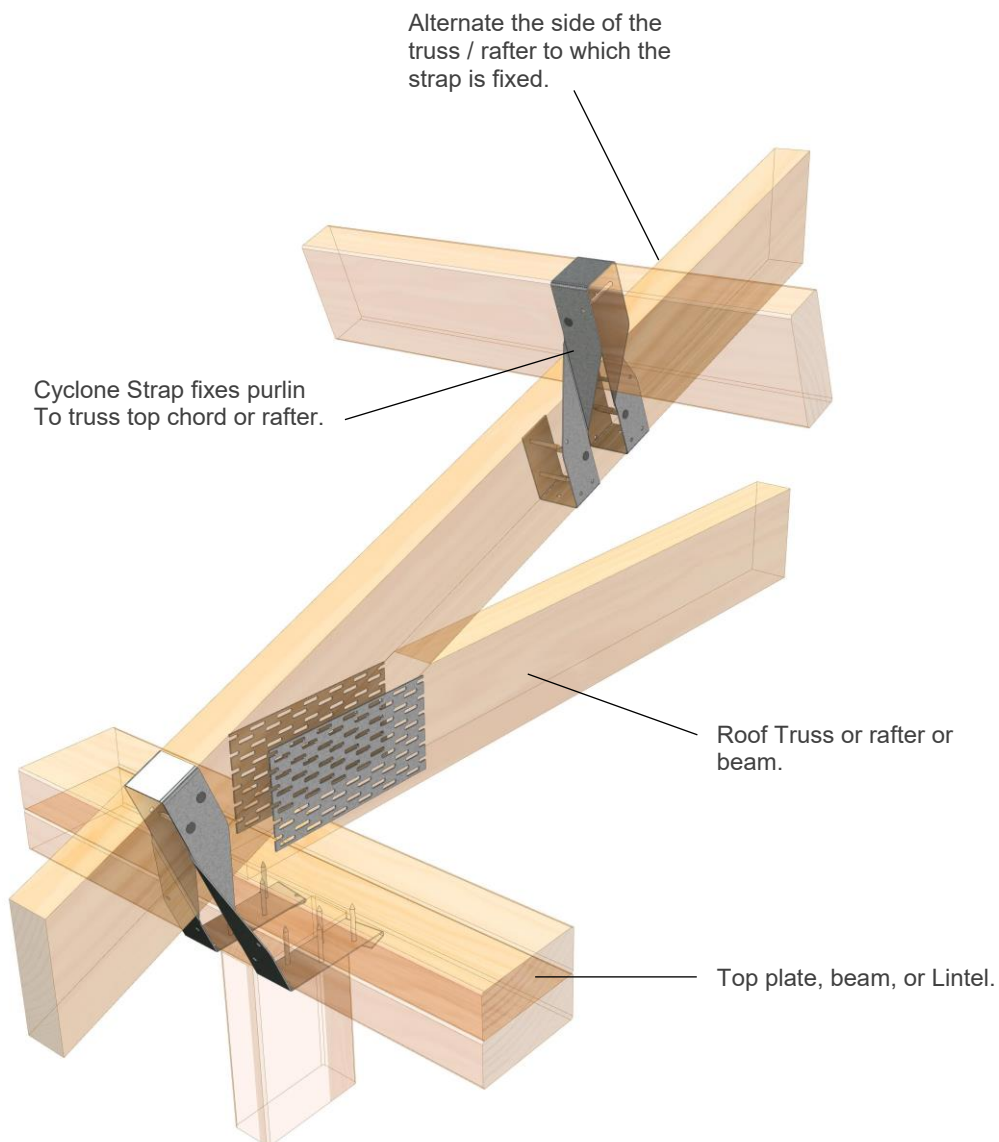


Figure 3

APPLICATION AND SCOPE OF USE

Strong tie down suitable for connecting purlins to roof trusses or roof trusses to the wall frame.

Pryda Cyclone Straps 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).



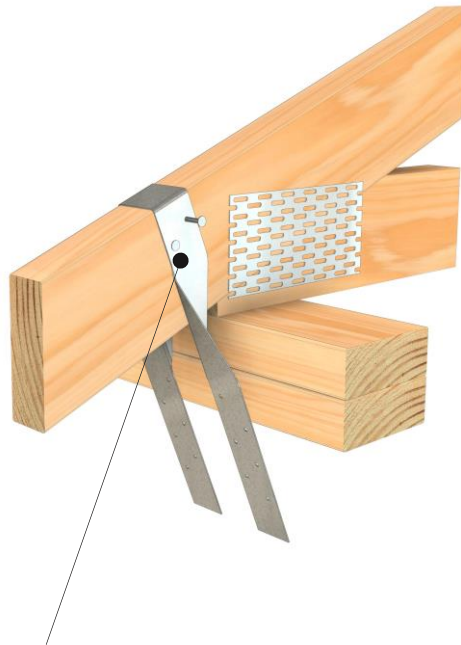
INSTALLATION OF CYCLONE STRAPS FOR TRUSS TIE DOWN TO TOP PLATE

STEP 1



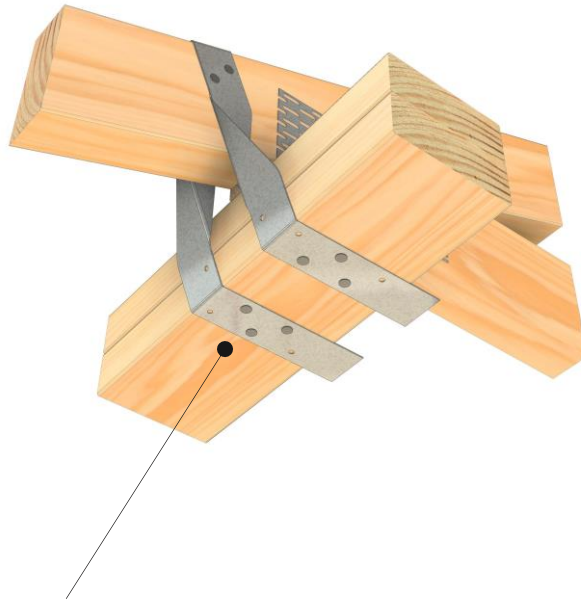
Position the centre of the Cyclone Strap over the Truss and bend each side down at the same time, ensuring each leg is equal length. Fold facing inward shown, fold facing outward is also acceptable.

STEP 2



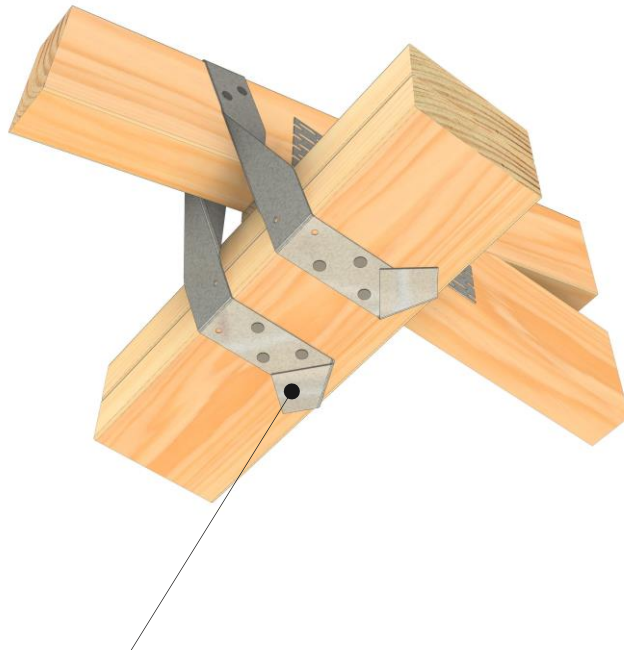
Install 2 x Pryda 35 x 3.15mm Timber Connector nails into each leg on both sides of the truss.

STEP 3



Wrap the two legs under the top plate and fix off with Pryda Timber connector nails per leg to suit QHS selection length and tie down requirement. 3 nails to each leg shown for demonstration purposes only. Higher capacities can be achieved if four nails are used (MPQHS6, QHS9).

STEP 4

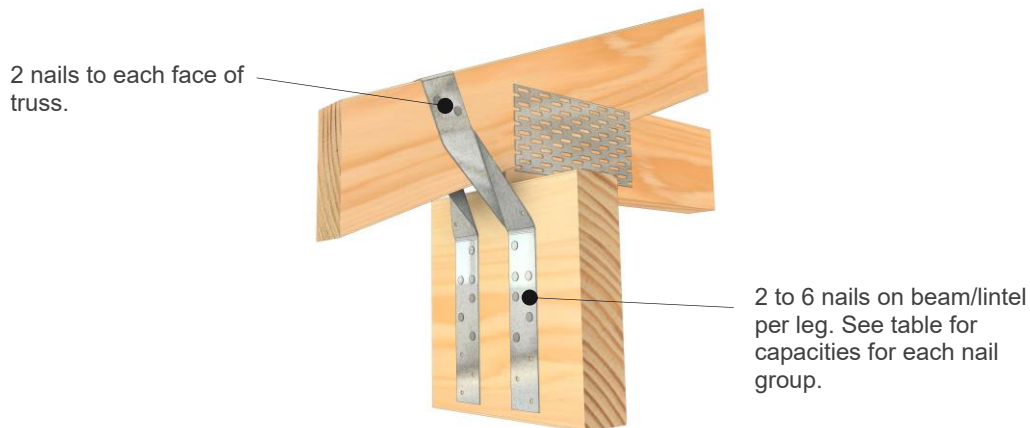


Fold overhanging legs over itself and flatten. Do not leave overhanging legs extending outside the frame.

INSTALLATION OF CYCLONE STRAPS FOR TRUSS TIE DOWN TO BEAM/LINTEL

Fixing to a beam or lintel is the same as above however instead of wrapping under the top plate, the cyclone strap legs are fastened to the face of the beam as shown below.

Note this is not as strong a connection as wrapping under the top plate and the number of nails into the face of the beam will dictate the capacity as shown in the design capacity table.



FASTENING CYCLONE STRAPS

BUILD WITH CONFIDENCE

Where possible, hand nailing with Pryda Timber Connector nails is always preferred, why?

- Pryda Timber Connector Nails are forged in one piece, unlike clouts that are two pieces soldered together, meaning the head can pop off.
- Pryda Nails are the correct diameter, ensuring a tight fit in prepunched holes = a stronger connection.
- Design values and testing have all been conducted using Pryda Timber Connector Nails.

PRYDA CODEMARK CERTIFICATE CMNZ10029 CERTIFIES PRYDA CYCLONE STRAP WITH USE OF NZ PRYDA TIMBER CONNECTOR NAILS. OTHER FIXING METHODS ARE OUTSIDE THE SCOPE OF THE CODEMARK.

Paslode's PPN-Master (Positive Placement Nailer) replicates the accuracy of hand nailing by using a probing tip to fire nails through holes in the connector. Pryda supports the use of the PPN-Master for these products. Unlike traditional nailing tools, no design capacity reduction is required when using the PPN-Master.

USING PASLODE MACHINE DRIVEN NAILS

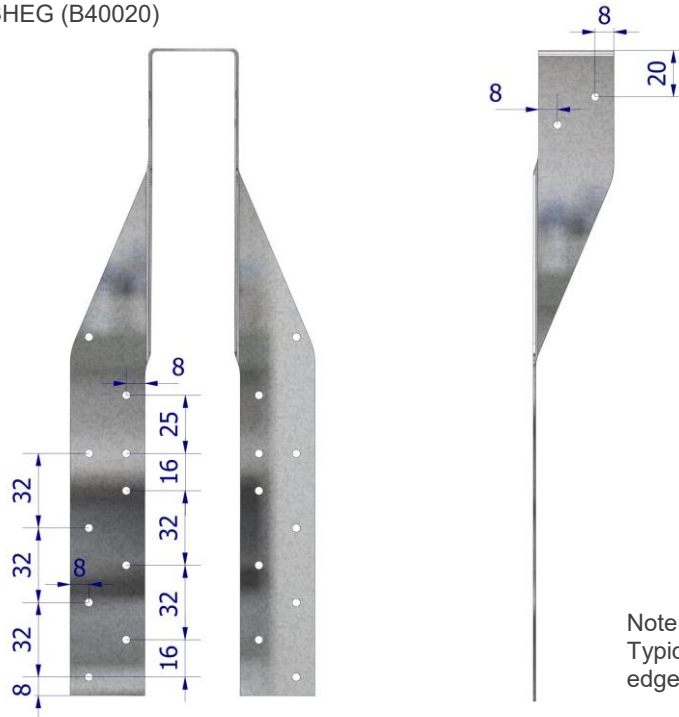
32 x 2.3 mm Duo-Fast C SHEG (i.e.: screw hardened electro galvanized) machine driven nails (code D40810) or equivalent may be used instead of the specified 35 x 3.15 mm Pryda Timber Connector Nails to fix selected Pryda connectors provided that the following requirements are strictly adhered to:

- **Design capacities shall be reduced by 20%** using the same number of nails as specified for the connectors and
- Nails shall be driven at nail spacings and edge distances closely following the selected Cyclone Strap hole pattern.

Extreme care must be taken when using machine driven nails as the prevailing installation practices tend to inhibit compliance with the above requirements.

Screw hardened, electro galvanised Paslode nails that are appropriate include:

- Duo-Fast C SHEG 32 x 2.3mm (D40810)
- Paslode 32 x 2.5mm (B25110)
- Duo-Fast 32 x 2.5mm (D41060)
- Pas Coil 32 x 2.5mm SHEG 2 Pack (B25250)
- Impulse 32 x 2.5mm SHEG (B40020)



Note: MPQHS6 shown.
Typical hole spacing and edge distance.

Contact details	
Manufacture location	Overseas
Legal and trading name of manufacturer	Pryda Australia -a Division of ITW Australia PTY LTD
Legal and trading name of importer	Pryda New Zealand -a Division of ITW New Zealand
Importer address for service	23-29 Poland Road, Wairau Valley, Auckland, 0627, New Zealand
Importer website	Pryda.co.nz
Importer email	info@prydaanz.com
Importer phone number	0800 88 22 44
Importer NZBN	9429039833129