

**pryda**



FIXING & INSTALLATION OF PRYDA  
CONNECTORS & ENGINEERED SYSTEMS

# **BUILDER'S GUIDE**

**2020**

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## GENERAL

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# PRYDA BUILDING GUIDE OVERVIEW

Pryda has developed this guide to accommodate New Zealand building practices. It is important that designers, engineers, builders, inspectors and building authorities are familiar with the benefits and critical requirements of the system. Pryda timber connectors, trusses and beams comply with the New Zealand Building Code, Section B1 Structure and B2 Durability, having been designed in accordance with sound and widely accepted engineering principles to comply with NZS3604:2011.

The capacities reported in this publication are limit state design capacities and not characteristic strengths thereby allowing direct comparison with design reactions reported in Pryda design software and Pryda design reports. This document supersedes and replaces all the previous publications of Builder's Guide.

For further design advice or engineering support regarding the Pryda products discussed in this publication please phone us at **0800 88 22 44** or visit our website - [www.pryda.co.nz](http://www.pryda.co.nz).

The Pryda Builders Guide features a Building Consent Documentation Reference for many connection details. This is aimed to encourage designers to align details in the building consent documentation with useful information in the Pryda Builders Guide for easy reference for builders and building officials at the time of inspection. The process is illustrated on the following page. It should be recognised that this is not a requirement and fabricators may choose to present information in various formats.

The **Building Consent Documentation Reference** should not be confused with the Pryda product code.

## The Company

Pryda New Zealand is an autonomous division of USA-based Illinois Tool Works Inc. a Fortune 200 diversified manufacturing company with almost 100 years of history. Other successful ITW brands include Paslode, ITW Proline, Ramset and Reid Construction Systems. Pryda also gains valuable benefits in product, fabrication machinery and software development from its association with other ITW software and truss connector suppliers from around the world.

## Who is Pryda?

Pryda was born in Napier, New Zealand in 1964. Pryda has remained an integral part of the building industry in New Zealand for over 50 years, particularly in timber truss and frame solutions with the development of a diverse range of timber connectors and structural brackets. Today Pryda remains a trusted New Zealand brand on building sites, in trade stores and in offices of architects, engineers and designers.

Pryda utilises world-class technology to provide a total system package to its licensed truss and frame plants, including fully integrated software and production systems, access to world leading manufacturing equipment and the highest levels of technical support.

## Our Philosophy

Pryda develops solutions to common construction challenges on the philosophy, "**safer, faster, smarter, easier**".

Pryda's philosophy is a unique method of looking at the total business needs of its licensed truss and frame fabricators, and providing cost effective solutions that not only meet current requirements but also identify and satisfy long term goals.

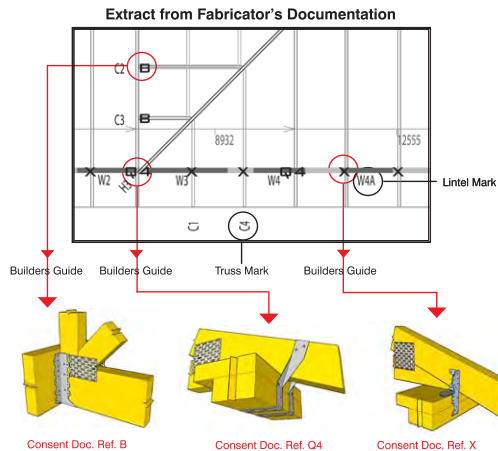
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## BUILDING CONSENT DOCUMENTATION REFERENCE

The Pryda Builders Guide features **building consent documentation references** for many connection details. This is aimed to encourage designers to align details in the building consent documentation with useful information in the Pryda Builders Guide for easy reference for builders and building officials at the time of inspection. The process is illustrated below.



# FRAME & TRUSS MANUFACTURERS ASSOCIATION CODE OF PRACTICE

## 1 The Code of Practice

### 1.1 Purpose

The FTMA Code of Practice is intended to provide a means of assurance to consumers, specifiers and Building Consent Authorities (BCAs) by way of publishing the standards and procedures that members agree to. In this way there is a basis for comparison with non-members as well as an industry based benchmark from which expectations can be managed.

### 1.2 Intention

It is intended that:

- Adherence to the Code of Practice will enable a qualifying fabricator to certify and mark their product as compliant to the Code of Practice;
- After a period of implementation and review adherence to the Code of Practice will be audited by a third party auditor;
- That adherence to the Code of Practice will be required for membership of FTMA.

### 1.3 Content

The Code of Practice includes:

- Section 2 - Truss Documentation

## 2 Truss documentation

### 2.1 Introduction

The intention of this section is to describe the documentation required to be produced by a fabricator of nail-plated timber trusses for use by its customer. The information contained in the document may be used by a Building Consent Authority (BCA) to satisfy the provisions of the Building Act 2004 and reasonable BCA processes in the issuing of a Building Consent or Code Compliance Certificate (CCC).

For practical purposes the production of the documentation is a two stage process. The first stage is to provide documentation to support the issuing of a building consent.

This can be achieved by providing:

- a 'Buildable' truss layout;
- a Fabricator Design Statement and;
- a Producer Statement – Design.

These documents show that trusses have been designed by an accredited fabricator<sup>1</sup>, licensed to use specific design software, applying the appropriate loads and using the appropriate materials to ensure compliance with the NZ Building Code (NZBC) as well as giving notification of any resultant loads that may affect the supporting structure.

This documentation is intended to be provided to the “design lead”<sup>2</sup> to then consider when completing the structural design before providing it to the BCA as part of a building consent application. The BCA may then issue a building consent that is subject to receiving further documentation.

The second stage is to support the issuing of the CCC and is required prior to on-site inspection by the BCA.

This can be achieved by providing:

- an 'As Built' truss layout;
- a Fabricator Design Statement;
- a Producer Statement – Design and;
- a Manufacturing Statement.

This is similar documentation to that provided for the first stage but ensures that the final construction details of the manufactured trusses accurately reflect what was built, which can then be recorded by the BCA as part of the project documentation. Such further documentation then satisfies the conditions on which the consent had been issued. The documentation is intended to be provided to the builder on-site and to the customer who should make it available to the BCA prior to on-site inspection.

When producing an 'As Built' truss layout and final truss detailing for supply, it is expected that a fabricator shall give consideration to any 'Buildable' truss layout that has been consented by a BCA. The fabricator shall consider any structural implications that may result from a different layout to that consented and if any changes are to be made then these shall be communicated to the customer to pass on to their design team for consideration and approval before proceeding with supply. It is not expected that fabricators should have to follow exactly a consented layout, particularly when it may have been provided by a competitive party. However a fabricator will have to produce an 'As Built' truss layout as per 2.3.1.

This two stage process is reflected in section 7.5 of the guidance document "Guide to applying for a building consent" published by the Department of Building and Housing. Acknowledgement and support for the COP Section 2 – Truss Documentation is also outlined in the publication from DBH Codewords issue 044. Both publications are available online at [www.dbh.govt.nz](http://www.dbh.govt.nz)

While it is expected that the documentation is going to be provided to assist a BCA in the consent or CCC process it should be noted that the contractual relationship is between a fabricator and its customer and that the responsibility to provide this information to a BCA rests with the applicant for a building consent.

<sup>1</sup> An accredited fabricator is a company that has a formal agreement with a nail-plate manufacturer to use their products in the manufacture of trusses. The nail-plate manufacturer in turn licenses the fabricator to use specific design software supplied and underwritten by the nail-plate manufacturer.

<sup>2</sup> A design lead refers to the architect or draftsman responsible for the overall design of the building

# PRODUCER STATEMENT PRYDA TIMBER CONNECTORS

**December 2020**

This Producer Statement is issued by Pryda NZ to cover the use, installation and durability of Pryda Timber Connectors for both structural application and durability as required by the New Zealand Building Code clauses B1 & B2 respectively.

## Description

The Pryda timber connectors are manufactured from either Z275 or Z600 galvanised coil. Some brackets are also available in hot dipped galvanised or stainless steel for use in certain exposed and covered situations.

## Application

Pryda timber connectors are designed for specific connections of timber to timber, primarily, as well as masonry, concrete and steel. Please contact Pryda should you require assistance relating to these connectors.

## Installation

Pryda timber connectors should be installed without damage to the finished surfaces. Storage prior to use to be in dry moisture free conditions that would not affect the future durability of the product.

## Design Capacity

As timber grades vary the design capacity is derived using the methods in NZS3603:1993 and is mostly dependant on the shear values of the nails, screws and bolts in timber. Most commonly used Timber Connectors have published characteristic strengths published in our literature.

## Durability

The durability of Pryda timber connectors is in accordance with the acceptable solutions contained in Table 4.1 and Table 4.2 of NZS3604:2011 in order to achieve a 50 year life expectancy for the connectors where applicable. Alternative solutions and direct applications are to be found elsewhere in this publication.

Andre' van Blerk  
BSc (Eng) CPEng CEngNZ IntPE  
Senior Structural Engineer  
Pryda NZ (A division of ITW)

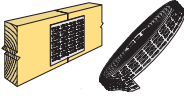
8 Orbit Drive, Rosedale, Auckland  
PO Box 100303, North Shore 0757, Auckland.

T: 0800 88 22 44  
E: info@prydaanz.com



# TIMBER CONNECTORS GUIDE

## Knuckle Nail plates



**Codes:** As per table below

**Material:** 1.0mm G300 Z275 galv steel

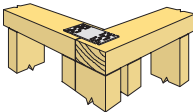
Pryda Knuckle Nail plates are designed for onsite use for a range of structural and non-structural timber jointing and timber protection uses such as butt joints, mitre joints, timber repairs, plank protectors and fence construction. A natural arc or dove-tail effect is created as the nails penetrate into the timber providing a very positive resistance to nail withdrawal.

Knuckle Nail plates are also available in coil form making it ideal for the on-site user to cut the required length by using metal cutters.

Knuckle Nail plates code MP8R10 = Merchant pack 8 rows of nails long x 10 teeth wide

CODE	WIDTH	LENGTH	CODE	WIDTH	LENGTH	CODE	WIDTH	LENGTH
MP2R4	33mm	63mm	MP4R10	76mm	127mm	MP4R16	134mm	127mm
MP2R5	38mm	63mm	MP6R10	76mm	190mm	MP6R16	134mm	190mm
MP4R5	38mm	127mm	MP8R10	76mm	254mm	NCR16	134mm	8.45m
MP6R5	38mm	190mm	MP10R10	76mm	317mm			
MP8R5	38mm	254mm	NCR10	76mm	12.7m			

## Strap Nails



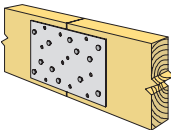
**Codes:** As per table below

**Material:** 1.0mm G300 Z275 galv steel

Pryda Strap Nails are pre-punched nail plates offering a quick, simple, economical and easy to use method of jointing timber. Strap Nails use the sharper tooth profile featuring the exclusive pre-punched twisted nail resulting in increased holding power due to better penetration of all timber types. Install simply by placing Strap Nail over joint and hammer into place.

CODE	WIDTH	LENGTH
MPSN2 or SN25	25mm	100mm
MPSN50 or SN50	50mm	100mm
SN50L	50mm	150mm

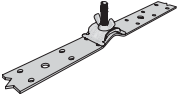
## Nail-on Plates



**Material:** 1.0mm or 2.0mm G300 Z275 galv steel or stainless steel

Pryda Nail-on Plates are flat, galvanised or stainless steel plates which are nail-fixed to timber to form various types of joints. Use only 35 x 3.15 mm galvanised Pryda Timber Connector Nails or equivalent nails with these connectors. Nail-on plates provide a quick and economical means of providing a strong joint for many different on-site applications. They are available in 3 widths - 75, 100 & 150mm and 2 thicknesses NPA = 1.0mm and NPB = 2.0mm.

### Strapbrace



**Codes:** SB10 - 10m coil, SB30 - 30m coil, SB30T - 30m with 5 tensioners  
SBT - Bag of 5 tensioners.

Stainless: SBU15/S - 15m coil, SBT/SS316 - Tensioner

**Material:** 0.8mm x 25mm G550 Z275 galv steel or stainless steel

Pryda Strapbrace is a high tensile strap ideally suited for bracing walls or roof planes in residential buildings. Strapbrace acts in tension only so must be applied in pairs. It is pre-punched to accept both 3.15mm nails and the 6mm tensioner bolt. The tensioner is available individually or within SB30T kits. Pryda Strapbrace is not designed for use as a hold down strap on braced wall panels - use Pryda Sheet Brace Straps for this application.

### Maxi Strap



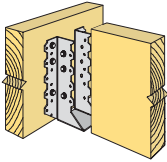
**Codes:** SBI/15 - 15m coil, SBI - 30m coil, SBI/T - tensioner.

Stainless: SBI/S - 30m coil. SBI/TS - Tensioner

**Material:** 0.8mm x 50mm G550 Z275 galv steel coil or stainless steel

Pryda Maxi Strap is a high tensile strap ideally suited for larger spans in walls or roof planes usually found on commercial or industrial buildings. Like the Strapbrace, Maxi Strap acts in tension only so braces must be applied in pairs. Holes have been pre-punched to accept both 3.15mm nails as well as the Maxi Strap tensioner. Tensioners are available individually.

**Framing Brackets**



**Codes:** Codes as per table below

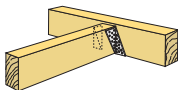
**Material:** 1.0mm G300 Z275 galv steel or stainless steel

The Pryda Framing Brackets are suitable for fixing joist to joist to beam, truss to truss, rafter to purlin and hangers to joists where a strong, rigid joint is required between members meeting at 90 deg. and floor joist. All these framing brackets use 35 x 3.15mm Pryda Product Nails or 12g x 35mm Type 17 Hex Head screws. The Framing Brackets must be fully nailed or screwed to achieve full design load capacities.

PRODUCT CODE	SUITABLE FOR TIMBER	PRODUCT CODE	SUITABLE FOR TIMBER
MPFB4590*	45 X 90 - 150mm	MPFB5274	50 x 90 - 150mm
MPFB45120*	45 X 120 - 200mm	MPFB52124*	50 x 120 - 200mm
MPFB45180*	45 x 190 - 300mm	MPFB52174	50 x 190 - 300mm
		FB94/152*	2/45 x 190 - 290mm
		FB65/170	65 x 190 - 290mm
		FB90200	90 x 195 - 300mm

\*Available in Stainless steel

**Nail-on Diagonal Cleats**

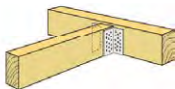


**Codes:** NPD

**Material:** 1.0mm G300 Z275 galv steel

The Pryda Nail-on diagonal Cleat is manufactured from 190 x 100 x 1.0mm Nail-on Plate diagonally folded to either LH or RH cleats. If this cleat is used as a butt joint connection for larger timber then use 35mm x 3.15mm Pryda Product Nails however when nailing into poles as a girt to pole connection then 75 x 3.15mm flat head nails should be used.

**Nail-on Angles**

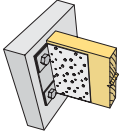


**Codes:** NPA - 190 x 100mm folded in half along its length

**Material:** 1.0mm G300 Z275 galv steel

The Pryda Nail-on Angle is manufactured from Nail-on Plate and shares similar characteristics and uses. It is ideal for butt joint situations as well as beam to bearer situations and gives a strong, economic alternative to framing brackets where the width of the beam is non-standard. This Nail-on Angle is pre-punched to accept 35 x 3.15mm Pryda Product Nails however if used as a connection to poles then 75 x 3.15mm flat head nails should be used.

**Tim-Con Brackets**

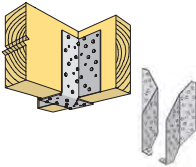


**Codes:** TCF130 - 130x 40/110mm, TCF190 - 190 x 40/110mm

**Material:** 2.0mm G300 Z275 galv steel

The Pryda Tim-Con Bracket is a high strength bracket for fixing timber beams or trusses to concrete or concrete block walls. Use 35mm x 3.15mm Pryda Product Nails into the timber beam. The bolt load capacity into the concrete or concrete blocks is critical and as bolt strength varies with different concrete grades, it is the responsibility of the specifier to check adequacy of bolts in each application. Either used singly or in pairs dependent upon design loading.

**Nail-on Joist Hangers and Split Joist Hangers**

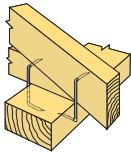


**Codes:** JHH100 - Suitable for 100mm timber, JHHS - Suitable for variable width timber

**Material:** 1.2mm G300 Z275 galv steel for JHH100, 1.8mm G300 Z275 galv steel for JHHS

The Pryda Nail-on Joist Hangers and Split Joist hangers are the heavy duty hangers in the Pryda hanger range and are pre-punched to accept the 35mm x 3.15mm Pryda Product Nails. The JHHS is a split hanger and will accept timber beam width as narrow as 32mm with beam depths commencing at 280mm.

**Z & U Nails**

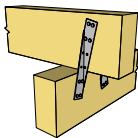


**Codes:** MPZU, MPZR, MPZL Stainless: MPZU/S MPZR/S, MPZL/S

**Material:** 5mm diameter mild steel wire galvanised or stainless steel

Z or U nails are manufactured in left handed, right handed or U (staple). It provides an effective and quick means of holding down purlins to rafters and joists to plates and joists to beams in high wind zones making a strong, low cost tie against wind uplift. Each nail is 100mm shank with 40mm spikes. The spike at 85deg to the shank and the unique "humpty backed" formation in the shank combine to draw the timbers to each other.

**Ceiling & Purlin Hangers**

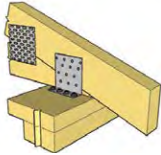


**Codes:** CPH190-LH, CPH-190RH, Stainless CPH190-LH/S, CPH-190RH/S

**Material:** 1.0mm G300 Z275 galv steel or stainless steel

Pryda Ceiling and Purlin Hangers are a simple cost effective fastening method providing a variety of uses in a building. They are simply nailed onto two pieces of timber crossing each other at right angles using 35mm x 3.15mm Pryda Product Nails. The Ceiling and Purlin Hangers are available in 190mm long and are normally used in pairs.

**Concealed Purlin Cleats**

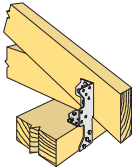


**Codes:** NPPC4, NPPC6, NPPC8, TTP9KN and TTP16KN.

**Material:** 2mm G300 Z275 galv steel or stainless steel

The Pryda Concealed Purlin Cleats provide a strong rigid connection for rafters, trusses and beams to wall top plates. Ideally suited as truss tie downs with ceiling plates if 14g x 75mm Type 17 hex head screws are used instead of the normal 12g x 35mm screws used in other applications. This is a versatile fastening and is also suitable for purlin fixing with or without ceiling to resist wind uplift. Available in 40, 60 or 80mm wide cleats to meet most applications.

**Multigrips**

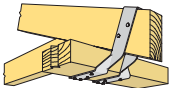


**Codes:** MPMG - 100 x 36 x 36mm, MGL - 132 x 36 x 36mm, Stainless: MG/S - 100 x 36 x 36mm stainless steel

**Material:** 1.0mm G300 Z275 galv steel or stainless steel

Pryda Multigrips are as the name suggests a multi-purpose one product fastening with no left hand or right hand requirements whilst using the 35mm x 3.15mm Pryda Product nail. The in-built bending slot ensures accurate bending on site. The long Multigrip has been designed to provide increased truss to top plate connection length allowing the truss to be tied directly to both top plate and ceiling plate.

**Cyclone Straps**



**Codes:** MPQHS4 - 400mm, MPQHS6 - 600mm, QHS9 - 900mm

**Material:** 0.95mm G300 Z275 galv steel

The Pryda Cyclone Strap has been designed as a simple, efficient tie down with the greatest design capacity for wind uplift prior to using a special design capacity. Tests have proven that bending the Cyclone Strap legs under the support member increases the design load that the strap is capable of carrying.

**Ezi Stud**

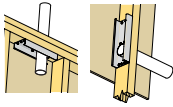


**Codes:** SST

**Material:** 1mm G300 Z275 galv steel

The Pryda Ezi Stud Tie - SST has been designed to exceed the requirement of table 8.18 in NZ3604:2011 - "Fixing of top plate of wall to supporting members such as studs and lintels at 600mm centres". The Pryda Ezi Stud Tie is not reliant on the position of the top plate fixing nails to achieve desired strength.

**Pryda Frame Fix**

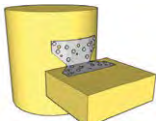


**Codes:** PFF

**Material:** 1.6mm G300 Z275 galv steel

The Pryda Frame Fix has a unique design which satisfies both downward and uplift capacities where a 60mm hole has been cut into a top plate with ceiling plate for service requirements. In these situations 14g x 75mm hex head type 17 screws shall be used. The PFF is designed to sit inside the wall space and will not interfere with either internal or external wall claddings. This product can also be used to reinstate the integrity of studs where 60mm holes have been drilled to allow service pipes/ducting to pass. In these cases 12g x 35mm hex head type 17 screws shall be used.

**Pole to Girt Brackets**

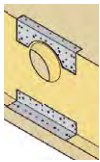


**Codes:** NPP2G. Stainless NPP2G/S

**Material:** 0.95mm G300 Z275 galv steel or stainless steel

The Pryda Pole to Girt bracket provides a robust means of fixing timber girts to poles in Pole & Rafter buildings. The bracket is designed in a butterfly shape to easily wrap around the poles. The nPP2G is a variation of the multigrip but with greater extension into the connected member and with the addition of screw holes provides greater fixing capacity.

**Pryda Stren-joist**

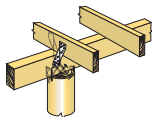


**Codes:** NPSJ, NPSJD

**Material:** 1.6mm G300 Z275 galv steel

The Pryda Stren-joist has been designed to allow service holes to be cut in floor joists. The fitting of a Pryda Stren-joist re-instates the integrity of the penetrated joist. They are quick and easy to install, come in a kit and shall be used on joists 140mm - 290mm high. Each kit contains the 3 part Stren-joist bracket, 1 x 500gr 35 x 3.15mm Pryda Product Nails and 10 x 8g x 20mm screws. If the hex head screwing installation is used then 30 x 12g x 35mm hex head type 17 galv screws will be required.

**6kN & 12kN Pile-Bearer Kits**

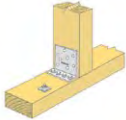


**Codes:** PBK6S & PBK12S for severe conditions

**Materials:** Standard Kit. Severe Corrosion Kit - Stainless Steel

The 6kN kit is suitable for the fixing of cantilever timber piles to bearers and joists and the 12kN kit for the fixing of anchor or braced timber piles to bearers and joists. Each kit includes their fixing requirements of nails and "U" nails.

**Sheet Brace Anchor Kit**

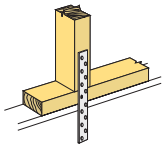


**Codes:** SBA - contains 2 x NPPC8, 16 x 35 x 3.15mm Pryda product nails and 8 x 12g x 35mm Hex Head Type17 screws.

**Material:** 2.0mm G300 Z275 galv steel

Provides 6kn and 12kN capacity wall stud to bottom plate connection. Can be retrofitted if external wall lining and cladding installed. Use 2 connectors where 12kN fixing required.

**Sheet Brace Straps**

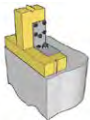


**Codes:** SBS300 - 300mm long, SBS400 - 400mm long, SBS600 - 600mm long, SBS30M - 30m coil. Stainless SBS300/S, SBS400/S, SBS600/S

**Material:** 1.0mm G300 Z275 galv steel or stainless steel

Pryda Sheet Brace Straps are mild steel straps providing 6kN or 12kN capacity fixing for sheet-braced wall panels. They comply with the requirements of NZS3604:2011 for a 6kN capacity strap. Use 2 straps and wrap around bottom plate where 12kN capacity fixing is required. The SBS is also very popular as a method of lintel tie down.

**Pryda Brace Anchor**



**Codes:** PBA

**Material:** 5mm G250 Steel

The PBA is designed to be used in conjunction with all gypsum wallboard manufacturers, bracing systems, references and literature. The PBA can satisfy the hold down requirements and is a substitute for the pre-fitted double strap.

**Bottom Plate Anchors**

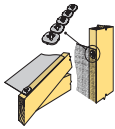


**Codes:** BPA - 235 x 1.2 x 50mm

**Material:** 1.2mm G300 Z600 galv steel

The Pryda Bottom Plate Anchor is a pressed steel bracket for fixing timber wall plates to concrete floors. Removes the need to pre-drill bottom plates. Cost saving over anchor bolts.

**Pryda Fix & Foil Fix**

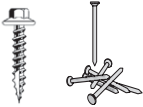


**Codes:** SFI - Pryda Fix

**Material:** 0.8mm galv steel

Pryda Fix (for shade cloth) is designed as a non-tear economical fixing for sheet insulation and shade netting. It eliminates tearing on sharp surfaces, the rounded coined edge holding the material firmly against the timber when the sharp pre-punched fastenings are driven home.

**Fasteners**



**Product Nails**

- OSNGB Galv                      35mm nails x 3.15mm 500g (approx 220 nails)
- OSNBCI/SS Stainless        35mm nails x 3.15mm 500g (approx 203 nails)

**Product Screws**

- HH1235G Galv                    12g x 35mm hex head type 17 (100 pack)
- HH1235SS Stainless        12g x 35mm hex head type 17 (100 pack)
- HH1475S Galv                    14g x 75mm hex head type 17 (100 pack)



# PRODUCER STATEMENT STRUCTURAL BRACKETS

## Pryda Structural Brackets

### December 2020

This Producer Statement is issued by Pryda NZ to cover the use, installation and durability of Pryda Structural Brackets for both structural application and durability as required by the New Zealand Building Code clauses B1 & B2 respectively.

### Description

Pryda Structural Brackets are fabricated from flat bar steel. They are mostly available in hot dipped galvanised finish with a selection also available in stainless steel for use as an architectural feature or in certain exposed and covered situations as covered in NZS3604:2011. The zinc coating is applied in accordance with AS/NZS 4690:1999 and the thickness exceeds 600g/m<sup>2</sup>. The remaining Pryda Structural Brackets are finished in electro galvanised.

### Application

Pryda Structural Brackets are designed to connect timber to masonry, concrete and steel. The brackets are designed for specific connections of timber to other materials. Please contact Pryda technical service should you require assistance for your intended application.

### Installation

The Pryda Structural Brackets should be installed without damage to the finished surfaces. Storage prior to use to be in dry moisture free conditions that would not affect the durability of the product.

### Characteristic Strength

When used with timber, the characteristic strength is derived by the verification method in accordance with the NZBC standard NZS3603:1993. The withdrawal strength of the bracket varies with the type of substrate it is installed in, hence the limit state design capacities shall be determined by the design engineer taking into consideration the above point.

### Durability

The durability of the Pryda Structural Brackets is in excess of the acceptable solutions contained in Table 4.1 of NZS3604:2011 in order to achieve a 50 year life expectancy for the brackets. Pryda Structural Brackets are hot-dipped galvanised to a level exceeding 600g/m<sup>2</sup>. Depending on the environmental conditions and exposure to marine conditions, the surface of the stainless steel brackets can be affected by tea staining. However, tea staining does not affect the structural integrity of the fitting.

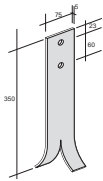
Andre' van Blerk  
BSc (Eng) CPEng CMEngNZ IntPE  
Senior Structural Engineer  
Pryda NZ (A division of ITW)

### Pryda New Zealand

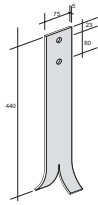
A division of ITW New Zealand Ltd  
8 Orbit Drive, Rosedale, Auckland  
PO Box 100303, North Shore 0757 Auckland

Tel: 0800 88 22 44  
Email: info@prydaanz.com

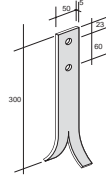
# STRUCTURAL BRACKETS GUIDE



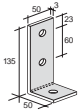
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(B78)



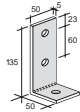
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(B79)



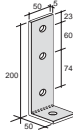
**SBK4** ■  
(B75)



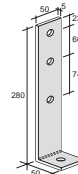
**SBK10**  
(B351)



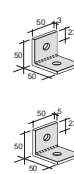
**SBK10A** ■  
(B51)



**SBK11A**  
(B52)



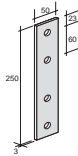
**SBK12A**  
(B53)



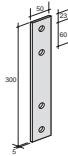
**SBK14**  
(B350)



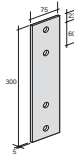
**SBK14A** ■  
(B55)  
(B50)



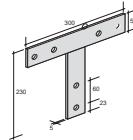
**SBK22** ■



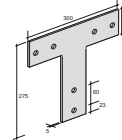
**SBK23** ■  
(B85)



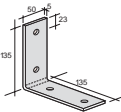
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(B88)



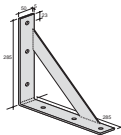
**SBK27** ■  
(B35)



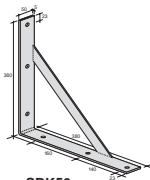
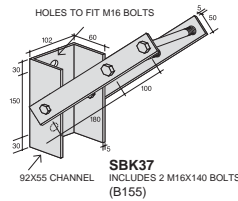
**SBK28**  
(B38)



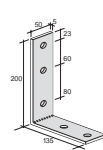
**SBK34**



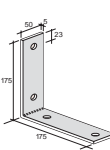
**SBK36**  
(B163)



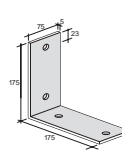
**SBK56**  
(B165)



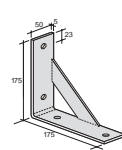
**SBK52A**  
(B54)



**SBK53**  
(B55)



**SBK53A**  
(B58)

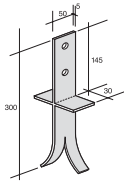


**SBK55**  
(B65)

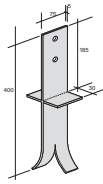
ALL BOLT HOLES TO ACCOMMODATE M12 BOLTS UNLESS NOTED

\* BRACKETS WITH HOLES FOR 6MM COUNTERSUNK SCREWS. ELECTRO GALVANISED FINISH

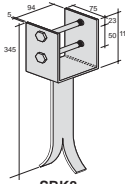
■ ALSO AVAILABLE IN STAINLESS STEEL GALVANISED AND STAINLESS STEEL PLATES AND BRACKETS FOR CONCRETE, TIMBER AND STEEL CONNECTIONS



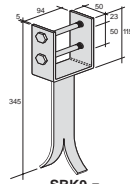
**SBK5** ■  
(B195)



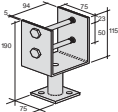
**SBK6** ■  
(B197)



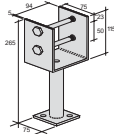
**SBK8** ■  
INCLUDES 2 M 12X120HD G BOLTS  
(B138)



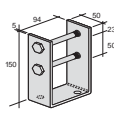
**SBK9** ■  
INCLUDES 2 M12X120 HDG BOLTS  
(B135)



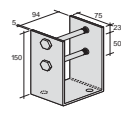
**SBK15** ■  
INCLUDES 2 M12X120 HDG BOLTS  
(B12)



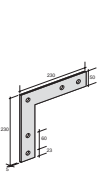
**SBK16** ■  
INCLUDES 2M12X120 HD G BOLTS  
(B14)



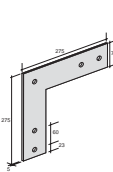
**SBK17** ■  
12MM BOLTS INCLUDED MASONRY  
ANCHOR NOT SUPPLIED  
(B25)



**SBK18** ■  
12MM BOLTS INCLUDED MASONRY  
ANCHOR NOT SUPPLIED  
(B28)



**SBK29** ■  
(B45)

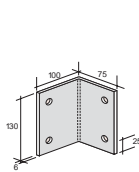


**SBK30** ■  
(B48)

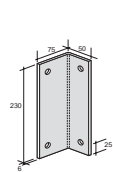


**SBK31 A** ■  
(B176)

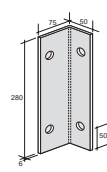
**SBK31** ■  
(B175)



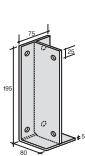
**SBK32** ■



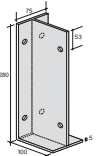
**SBK33** ■  
(B177)



**SBK33A** ■  
(B178)



**SBK38** ■  
(B108)



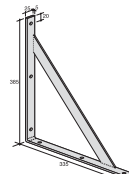
**SBK38A** ■  
(B109)



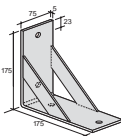
**SBK41** \*  
(B553)



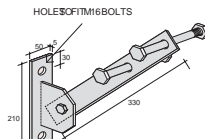
**SBK42** \*  
(B554)



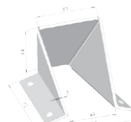
**SBK50** \*  
(B567)



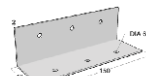
**SBK55A** ■  
(B68)



**SBK57** ■  
INCLUDES 2M 16X120 BOLTS  
(B145)



**SBKFS** ■  
(BSB1)



**P2BB** ■

Whilst reference is made to competitor product it is intended as a best fit only and may not be an identical match - if in doubt please check.

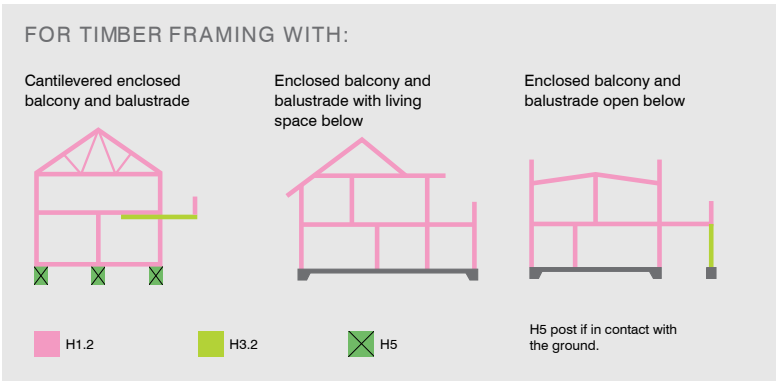
A QUICK GUIDE TO  
**TIMBER TREATMENT**  
**FOR ENCLOSED FRAMING**

A new timber treatment system for Acceptable Solution B2/AS1:

- **tough** against fungal decay and insect attack
- simpler and easier to use
- protects framing from decay
- time and cost effective

Timber treatment in Acceptable Solution B2/AS1 has changed to a new, simpler system:

If you are using the Acceptable Solution to demonstrate compliance with the Building Code, H1.2 is now required for nearly all radiata pine and Douglas fir enclosed timber framing.



## What's new with timber treatment?

The Acceptable Solution B2/AS1 has changed. The timber treatment hazard class H1.2 is now required for radiata pine and Douglas fir timber in buildings, where it is protected from the weather (ie, enclosed timber framing). Consult the tables in a **Quick Guide to Timber Treatment** for Enclosed Framing for the few exceptions to H1.2 treatment.

## Why H1.2?

Research shows that H1.2 gives framing timber good protection from decay. H1.2 boron treatment is colour-coded pink.

## How can I be sure my timber framing complies with the Building Code?

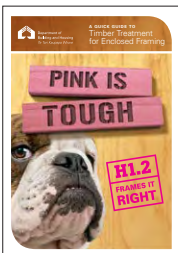
The changes shown here outline one way to comply with the New Zealand Building Code durability clause B2. However, this is only a very brief introduction, so consult Acceptable Solution B2/AS1 for full details.

## Why continue to treat timber?

Timber must be adequately protected against damage from fungal and insect attack so that buildings are durable and comply with the Building Code. The new system improves the overall level of protection against decay.

## What about other species of wood for framing?

For other species of wood and engineered wood products (such as LVL and Glulam), the Acceptable Solution does not change. For information on other species which can be used under the Acceptable Solution, consult NZS 3602:2003 Tables 1 and 2.



This is only a very brief introduction to the changes made to the timber treatment requirements effective July 2011.

For further information see "**A Quick Guide to Timber Treatment for Enclosed Framing**" which is available from the Department of Building and Housing, or consult Acceptable Solutions B2/AS1 for full details.

Pryda New Zealand acknowledges the Department of Building and Housing as the source of this information.

# ENVIRONMENT DEFINITIONS & PRODUCT SELECTION

## Alternative solution to Table 4.1 NZS3604:2011

Under the building code, Clauses B2 Durability, requirements for steel fasteners are:

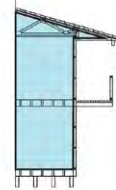
- For structural steel fasteners with difficult access and replacement - 50 years or nominated period
- For structural steel fasteners with moderate ease of access and replacement - 15 years or nominated period

### Environment Definitions

**Exposed/Sheltered**



**Closed**



Zone	Location	Environment	Product
All Zones	Fully enclosed walls, floors & roof spaces	Closed	Pryda Zinc Coated Products
Zones B & 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 Products
		Vented MORE than 7000mm <sup>2</sup> /m <sup>2</sup>	Exposed Pryda Stainless Steel Products
	All subfloor fastenings within 600mm of the ground	Sheltered and exposed Pryda Stainless Steel Products	
	All other structural fixings	Sheltered Pryda Stainless Steel Products	
Exposed Pryda Stainless Steel Products Pryda SBK HDG Brackets			
Zones D	All structural fittings	Sheltered and exposed Pryda Stainless Steel Products	

Notes: All Pryda galvanised products comply with NZS3604:2011 Table 4.2

# EXPOSURE ZONES



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NOTE - The sea spray zone includes all offshore islands, the area within 500m of the coastline of New Zealand and those areas shown in white. The map shall be read in conjunction with clause 4.22 of NZS3604:2011.

**Exposure zones**

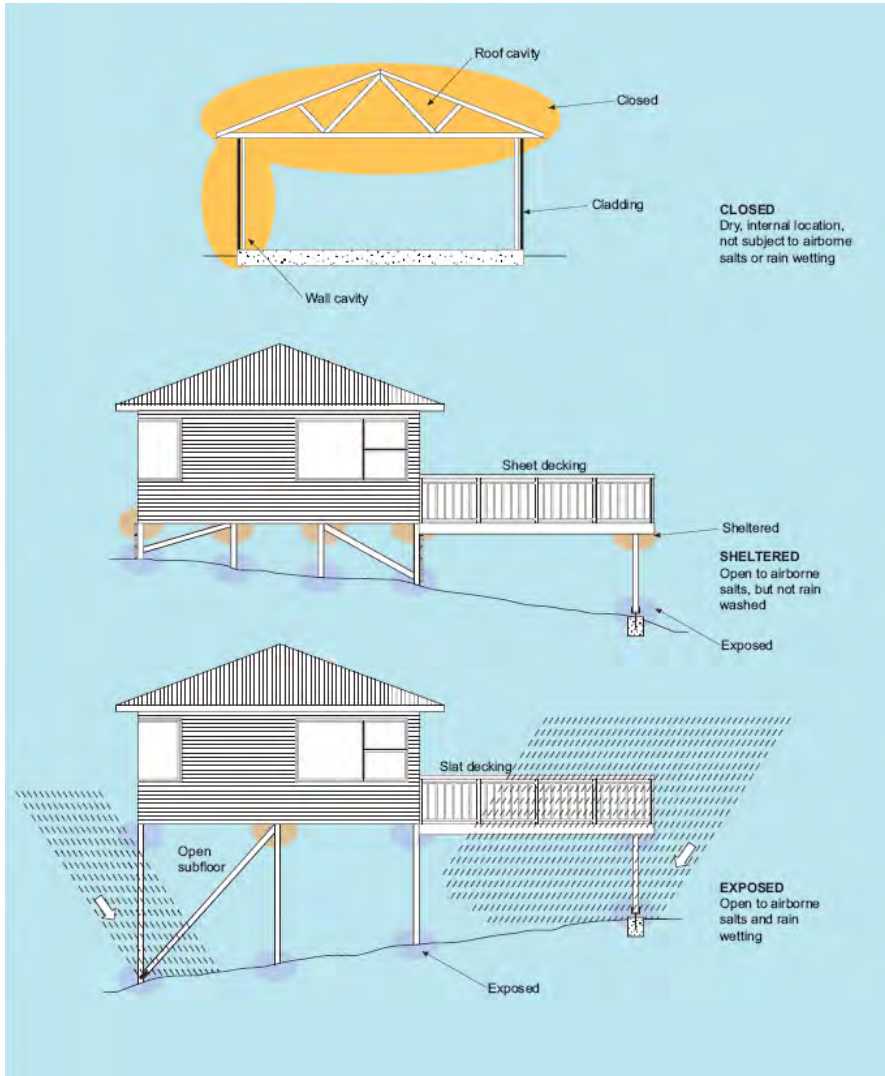
- Zone B
- Zone C
- Zone D



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# EXPOSURE DEFINITIONS



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# 6KN PILE-BEARER KIT

Consent Doc. Ref.  
**P6**

## 6kN Capacity Fixing of Cantilever Pile to Bearer and Joists

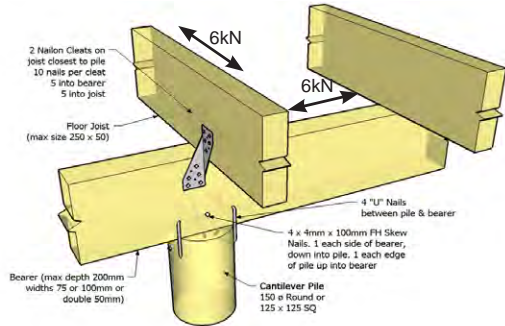
### Features

- Connection detail covers bearer sizes up to 200mm deep, joists up to 250mm deep.
- All components supplied as one complete package.
- Available in all stainless steel components for use in environments with severe corrosion risk.

### Installation

As detailed above but subject to the following:

1. On round pile bearer must be central. Bearer may be offset on square pile but must not overhang edge.
2. Nailon cleats fix to joist closest to pile. At building corner where fixing to boundary joist is precluded fix cleats to next closest joist along bearer.
3. At external wall where joists do not overhang bearer enough for cleats to be fixed on outside face, they may be fixed to inside face only of that bearer provided a similar detail is used on the other side of the floor system.
4. Joist must have lateral support (blocking or perimeter joist) within 300mm of bearer in accordance with NZS3604:2011 cl 7.1.2.1.
5. All components must be protected after installation against wind-blown sea salt deposition by coating with 2mm thick grease, Selseys roof and gutter (silicone) sealant, or other approved coating.



6 kN Horizontal Capacity Fixing of Bearer/Joists to Cantilever Pile in accordance with NZS 3604:2011 Clauses 6.7.3.1, and 6.7.3.3.

### Durability

Complies with NZ Building Code - Clause B2 for a structural component with 50 year durability.

**PBK6S:** Severe Corrosion Kit (All Grade 304 Stainless Steel Components) - suitable for all sea spray zone conditions.

### Specifications

#### “U” Nails:

5mm diameter, 100mm shank and 40mm spikes (4 of)

#### Cleats:

150 x 50 x 1mm diagonally folded (2 of same side)

#### Nails:

45 x 3.15 Flat Head Square Twist (22 of)  
100 x 4.0 Flat Head (4 of)

# 12KN PILE-BEARER KIT

Consent Doc. Ref.  
**P12**

## 12kN Capacity Fixing of Cantilever Pile to Bearer and Joists

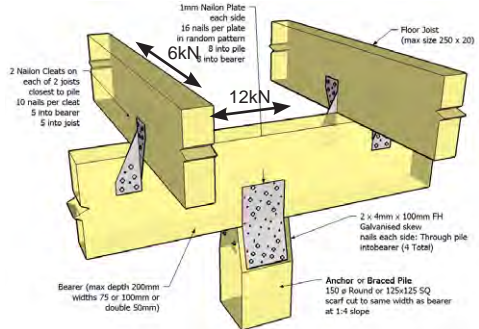
### Features

- Allows Anchor/Braced Pile to be in line with and same height as other piles.
- Connection detail covers both Anchor and Braced Piles, with bearer sizes up to 200mm deep, joists up to 250mm deep.
- All components supplied as one complete package.

### Installation

As detailed above but subject to the following:

1. On round pile bearer must be central. Bearer may be offset on square pile but must not overhang edge.
2. Nail on cleats fix to two joists closest to pile. At building corner where fixing to boundary joist is precluded fix cleats to next two closest joists along bearer.
3. At external wall where joists do not overhang bearer enough for cleats to be fixed on outside face, they may be fixed to inside face only of that bearer provided a similar detail is used on the other side of the floor system.
4. Joists must have lateral support (blocking or perimeter joist) within 300mm of bearer in accordance with NZS3604:2011 cl 7.1.2.1.
5. Braced Piles - connection is required at top of both piles to which each brace attaches.
6. All components must be protected after installation against wind-blown sea salt deposition by coating with 2mm thick grease, Selloys roof and gutter (silicone) sealant, or other approved coating.



12 kN HORIZONTAL CAPACITY Fixing of Bearer/ Joists to ANCHOR PILE or BRACED PILE, in accordance with NZS 3604:2011 Clauses 6.8.5, 6.8.6 and 6.9.3.

### Durability

Complies with NZ Building Code - Clause B2 for a structural component with 50 year durability.

**PBK12S:** Severe Corrosion Kit (All Grade 304 Stainless Steel Components) - suitable for all sea spray zone conditions.

### Specifications

#### Nailon Plates:

100 x 190 x 1 mm (2 of)

#### Cleats:

150 x 50 x 1mm diagonally folded (2 LH and 2 RH)

#### Nails:

45 x 3.15 Flat Head Square Twist (72 of)  
100 x 4.0 Flat Head (4 of)

# CONCENTRATED LOADS ON CONCRETE FLOORS

**Scope:**

To determine the correct adjustments requirement in addition to the requirements of NZS3604:2011 to foundations in the event of concentrated gravity loads by the roof layout. To determine the additional studs required for the above wind uplift and gravity situations.

**Design Assumptions**

1. Buildings within NZS3604:2011 limits - truss spans within 12m.
2. Standard truss spacing applies ie. minimum 600mm crs and max. 1200mm crs. Timber shown in studs SG8 or better.
3. Soil conditions - ultimate bearing strength required - 300kpa or better as per NZS3604:2011 ch.
4. Where 2 or more studs are required, the concentrated load truss face will be within 50mm of the centre of support.
5. The number of top plates to be determined from NZS3604:2011
6. For the design, minimum one face of the wall has been considered fully lined.
7. These details are for pad footings and can be applied in conjunction with continuous slab thickenings as well.

**SLAB THICKENING DETAILS**  
(FOR CONCENTRATED LOADS FROM TRUSS)

HEIGHT OF STUD (m)	STUD SIZE	NO. OF STUDS UNDER LOAD
2.4	90 x 45	AS PER NZS3604:2011
2.7	90 x 45	AS PER NZS3604:2011
3.0	90 x 45	AS PER NZS3604:2011

HEIGHT OF STUD (m)	STUD SIZE	NO. OF STUDS UNDER LOAD
2.4	90 x 45	2
2.7	90 x 45	2
3.0	90 x 45	3

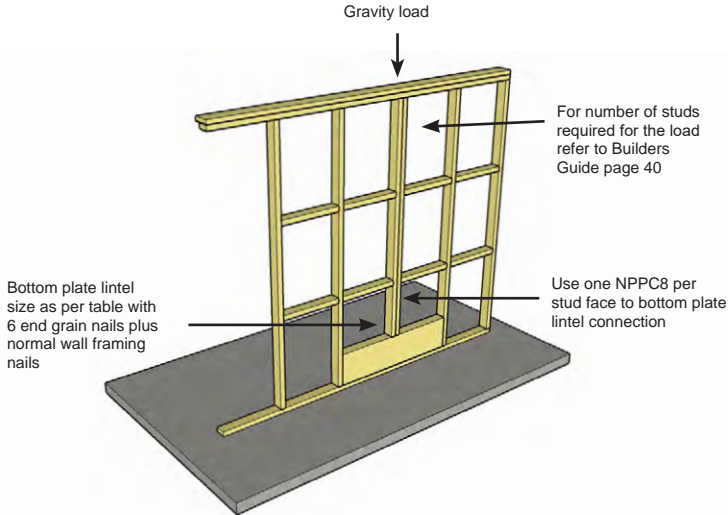
  

HEIGHT OF STUD (m)	STUD SIZE	NO. OF STUDS UNDER LOAD
2.4	90 x 45	3
2.7	90 x 45	3
3.0	90 x 45	4

All capacities are limit state design values and not characteristic strength therefore these may be compared directly to Pryda design software output. Capacities assume a minimum timber grade of SG8.

# CONCENTRATED LOADS ON CONCRETE FLOORS

This retrofit can be used when an internal support has no concrete floor thickening and loads are greater than 12kN provided that:



	Gravity Load		
	12kN - 23kN	24kN - 36kN	36kN
<b>Bottom Plate Lintel Size SG8</b>	1/250 x 100 or 2/250 x 50	1/300 x 100 or 2/300 x 50	SED*

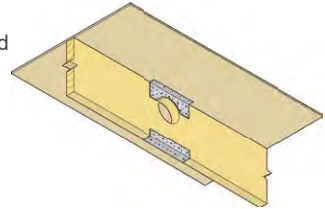
- Minimum length of lintel required is 2m under concentrated load. Use bottom plate lintel size as per table.
- The building to be built within NZS3604:2011 limits with roof spans less than 12m.
- Soil conditions shall be 300kPa ult. bearing or better as per NZS3604:2011 Ch3.
- Where 2 or more studs are required, the concentrated load truss face shall be within 50mm from the centre of the support.
- For number of studs to match load, refer to Pryda Builders Guide page 40.
- If multiple studs are loaded by more than 12kN, the bottom plate lintel shall be extended continuously by one stud spacing past the last loaded stud.
- Concrete is assumed to be 17.5MPa grade or better, 100mm thick with mesh.
- SED required for gravity loads exceeding 36kN.

\*SED = Special Engineering Design

# STREN-JOIST

## Alternative Solution to NZS3604:2011 Cl 8.51.6 and 8.7.5

Alternative solution where strengthening of joists are required after a hole or notch has been made in a joist, refer to NZS3604:2011 cl 8.5.1.6 and cl 8.7.5.



### Specification

**Product Code:** NPSJ, NPSJD

**Material:** 1.65mm G300 Z275 galvanised steel

**Durability:** Suitable for use in closed environment as per NZS3604:2011 Table 4.1

**Application:** Designed to reinstate the structural integrity of a joist after a service hole has been drilled through the member using the verification methods in accordance with the New Zealand Building Code B1 & B2.

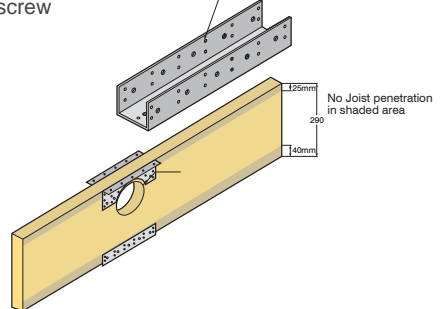
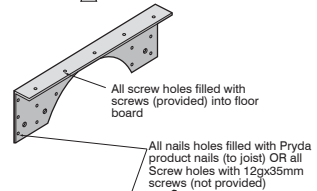
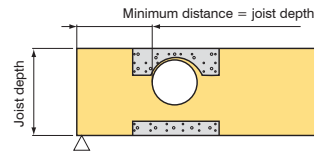
### Advantages:

- Quick and easy to install
- Fixing option of either nails or screws
- Can be retro-fitted
- One size designed for use on 140—290mm joists

NPSJ Joist Size (mm)	Max Hole Size (mm)	NPSJD Joist Size (mm)	Max Hole Size (mm)
140 x 45	72	140x90	60
190 x 45	122	190x90	100
240 x 45	125	240x90	110
290 x 45	125	290x90	110

### Installation:

1. Use NPSJ/NPSJD to locate and correct vertical location of hole along the joist. Care shall be exercised when installing NPSJ in 140x45mm or NPSJD in 140x90mm joist where hole location is critical.
2. The hole can be made in any position along the span of the joist provided that the hole edge is no closer than one joist depth from the end supports of the joist. Refer to table for maximum hole size in joist.
3. Present the two angles to either side of hole as shown and nail or screw into place ensuring a tight snug fit onto joist and underside of flooring (use 10 / 8gx20mm screws for top flange).
4. Present channel to underside of joist and nail or screw into place ensuring a tight and snug fit.



### Notes:

- If hex screw fixing option is used then 30 / 12g x 35mm T17 hex head screws are required (not supplied with the NPSJ kit).
- All nail or screws holes shall be filled.
- Intended for use in internal 'closed space' as per Table 4.1 of NZS3604:2011.
- Maximum of 3 holes per one joist, spacings at two times the joist depth.

## FRAMING BRACKETS

**Features:** Pryda Framing Brackets are suitable for truss to truss, rafter to purlin, and hangers to joists. They are either nailed into place with 35 x 3.15mm Pryda Product nails, or type 17 12g x 35mm hex head galvanised screws.

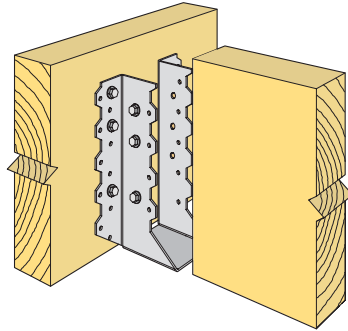
### Fixings Requirements for Joists

Loading as per AS/NZS 1170:2002 (Table 3.1)

**Domestic/Balcony** live loads:  
1.5/2.0kPa and 1.8kN point load

**Commercial/Industrial** live loads:  
3.0kPa max and 2.7kN point load

Select joist span using NZS 3604:2011 tables or similar.  
Hanger size in table corresponds to joist size.



			Domestic and Balcony Loads			Commercial and Industrial Loads			
			Nails per flange		Screws per flange		Nails per flange		Screws & Nails per flange
Joist Size (mm)	Hanger Size	Consent Doc. Ref.	Joist	Bearer	Joist	Bearer	Joist	Bearer	
90 x 45	MPFB4590	A	2	3	1	1	2	4	1 Screw + 1 Nail
140 x 45	MPFB4590	A	2	3	1	1	2	4	1 Screw + 1 Nail
190 x 45	MPFB45120	B	3	5	2	2	3	6	2 Screws + 2 Nails
240 x 45	MPFB45120	B	3	5	2	2	3	6	2 Screws + 2 Nails
290 x 45	MPFB45180	C	4	7	3	3	4	8	3 Screws + 3 Nails

### Notes:

- Use 35 x 3.15 mm Pryda product nails and/or Type 17 12g x 35mm Hex Head Screws
- The above values apply to SG 8 or better
- Framing brackets to suit rough sawn timber also available: MPFB5274, MPFB52124, MPFB52174
- All 45mm and 52mm framing brackets are available in stainless steel

# FLOOR AND RAFTER TRUSSES

## Pryda Longreach Trusses

Pryda Longreach is a premium performance floor and rafter truss system using all timber webs and chords for maximum stiffness, and can be manufactured to any depth required from 235 to 450 mm.

A major feature of all-timber Longreach is that low-cost increases in depth will significantly increase span capacity or stiffness.



## Pryda Span Trusses

Pryda Span floor and rafter trusses have galvanised high strength steel diagonal webs for lightweight and economy, and are available in nominal 250, 300 and 400 mm depths. The steel web design has a patented deep V profile incorporating stiffeners for improved performance and resistance to damage during handling on site.



## Floor Truss Spans and Depth

This table illustrates the significant increase in span capacity by increasing floor truss depth and/or higher timber grade.

**Example: Spans for residential floor loads (1.5kPa/1.8kN) at 450mm centres**

Top & bottom chord timber		Truss depth (mm)			
Size (mm)	Grade	250	300	350	400
90x45	SG 8	4300	4900	5200	5700
90x45	SG 12	5800	6500	7100	7700

## Guide to Specification

This guide contains information for designers on the design principles for Pryda floor and rafter truss systems to incorporate relevant details within their specifications.



## For more information

More information on Pryda floor and rafter truss systems is available from the Pryda website [www.pryda.co.nz](http://www.pryda.co.nz) or contact Pryda New Zealand on 0800 88 22 44.



# BOTTOM PLATE ANCHOR

Consent Doc. Ref.  
BP6

**A pressed steel bracket for fixing timber wall framing to concrete floors**

## Features

- Replaces NZS 3604:2011 Bolt/Dowel fixing of timber wall plate to concrete slab.
- Speedier concrete finishing - allows floating to slab edge and avoids messy hand trowelling around cast-in bolts.
- Easier wall frame placement - no drilling of plates and no lifting/locating over preplaced bolts.
- Cost savings over cast-in anchor bolts.
- Capacities comply with cl 7.5.12.3 NZS3604:2011

## Specification

**Product Code:** BPA

**Material:** 1.2mm G300 Z600 galvanised steel coil

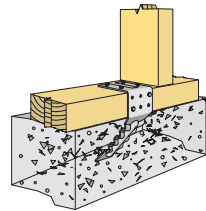
**Nails:** 35 x 3.15mm Pryda Product Nails

## Installation

1. Tack nail anchors to top edge of boxing at maximum 900 ctrs (if wall contains sheet brace element, refer to sheet brace manufacture literature. Position anchors with tabs horizontal and crimped end downwards at 45° angle.
2. After initial concrete cure position wall frame. Bend anchor up and over plate and nail with 35 x 3.15mm Pryda Product Nails-2 into edge of plate and 2 per tab. If tabs coincide with stud position, nail to stud with 2 per tab. Fix one 75 x 4mm concrete nail adjacent to anchor, minimum 70mm from edge of slab.

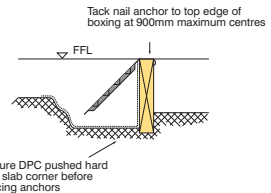
**NOTE:** Bottom plate fixings are designed to be used in DRY service conditions ie. with concrete protected from moisture by continuous damp proof membrane.

*Capacities assume minimum timber grade of SGB.*

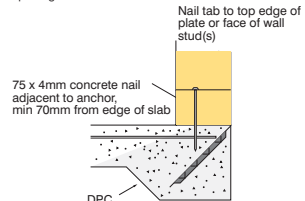


## Installation

### Step 1.



### Step 2.



# PRYDA SHEET BRACE STRAPS

Consent Doc. Ref.  
6kN application **BP1** / 12kN application **BP2**

## 6KN OR 12KN CAPACITY FIXING FOR SHEET-BRACED WALL PANELS

### Features

Pryda Sheet Brace Straps are mild steel straps providing 6kN or 12kN capacity fixing for sheet braced wall panels. They comply with the requirements of section 8 NZS3604:2011 and are also popular as a method of lintel tie down. Where straps longer than 600m are required 30m coils are available. The coils can easily be cut to the required length.

### Specification

#### Code:

SBS30M (25mm x 1.0m x 30m)

SBS300 (25mm x 1.0mm x 300mm)

SBS400 (25mm x 1.0mm x 400mm)

SBS600 (25mm x 1.0mm x 600mm)

**Material:** 1.0mm G300 Z275 galvanised steel coil or stainless steel

**Nails:** 35 x 3.15mm Pryda Product nails

### Installation

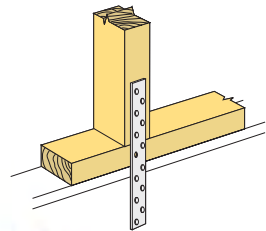
Timber Floor external wall - Install Pryda SBS300 for the connection. Use 6 nails into stud, 3 into bottom plate and 6 into boundary joist/solid blocking. Use 2 straps for connections requiring 12kN capacity.

Timber Floor internal wall - Prior to installation twist Pryda SBS300 and fix using 6 nails into Stud, 3 nails to Bottom Plate and 6 nails to Joist. Install a second strap on the opposite side to achieve 12kN capacity.

Concrete Slab - Form U-shaped strap wrapped under the bottom plate and nail with 3 nails into each side of the Stud (use 6 nails for 12kN capacity) and 3 nails into each side of bottom plate.

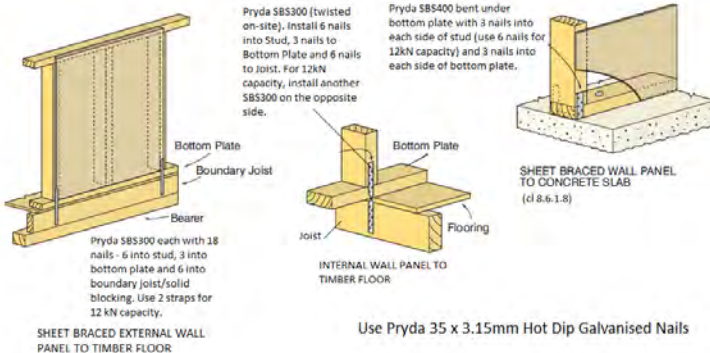
Rafter to rafter connection - Nail Pryda SBS300 with 6 nails into each rafter.

Lintel fixing - Refer to "Lintel Fixing Schedule" on Pg 36 for installation procedure and further information.



## APPLICATIONS

Figures in brackets refer to NZS3604:2011 Clause numbers



All capacities are limit state design values and not characteristic strength therefore these may be compared directly to Pryda design software output. Capacities assume a minimum timber grade of SG8.

# PRYDA STUD ANCHOR

Consent Doc. Ref.  
6kN application **BP3** / 12kN application **BP4**

## 6KN OR 12KN CAPACITY FIXING

### Features

**6kN:** One connector provides 6kN capacity fixing of wall stud to bottom plate.

**12kN:** Use 2 connectors, one each face of stud (eg. Boundary fire wall – single storey garage).

Able to be retrofitted if external wall lining / cladding already installed.

### Specification

**Code:** SBA

**Material:** 1.5mm G300 Z275 Galvanised Steel

**Nails:** 35 x 3.15mm Pryda Product Nails

**Screws:** Type 17 12g x 35mm hex head galvanised screws

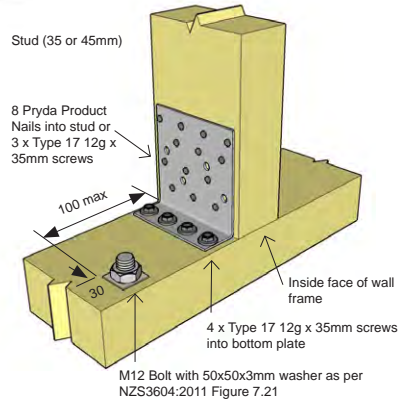
### Installation

Locate fixing hard against face of stud and roughly central about stud width. Fix 4 screws down into bottom plate through the four holes in the narrow flange.

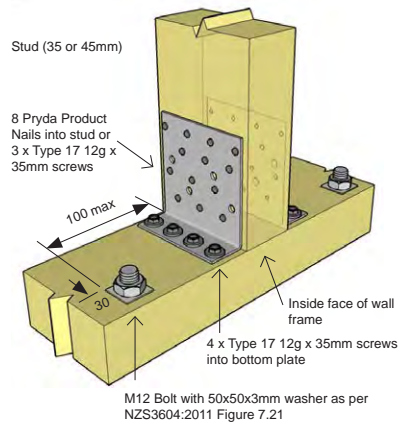
Nail with 8 nails supplied into stud (spread nails evenly over nailing area – not all nail holes will be filled).

Alternately 3x Type 17 12g x 35mm screws can be used. Note: A 6kN fixing of bottom plate to concrete (eg. One M12 bolt) is required within 100mm of the 6kN stud to plate fixing.

### 6kN - 1 x SBA



### 12kN - 2 x SBA



All capacities are limit state design values and not characteristic strength therefore these may be compared directly to Pryda design software output. Capacities assume a minimum timber grade of SG8.

# LINTEL FIXING SCHEDULE

**ACCEPTABLE SOLUTIONS IN CONJUNCTION WITH TABLES 8:14 & FIG 8:12 OF NZS3604:2011**

Span Meters	Wind Zone	LIGHT ROOF Loaded Dimensions Meters						HEAVY ROOF Loaded Dimensions Meters					
		2	3	4	5	6	2	3	4	5	6		
0.6	L	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	
	M	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	
	H	L1	L1	L1	L2	L2	L1	L1	L1	L1	L1	L1	
	VH	L1	L1	L2	L2	L2	L2	L1	L1	L1	L2	L2	
	EH	L1	L2	L2	L2	L3	L1	L1	L2	L2	L2	L2	
0.9	L	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	
	M	L1	L1	L1	L1	L2	L1	L1	L1	L1	L1	L1	
	H	L1	L1	L2	L2	L2	L1	L1	L1	L2	L2	L2	
	VH	L1	L2	L2	L3	L3	L1	L2	L2	L2	L2	L2	
	EH	L2	L2	L3	L3	L3	L2	L2	L2	L3	L3	L3	
1.2	L	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	
	M	L1	L1	L2	L2	L2	L1	L1	L1	L1	L1	L1	
	H	L1	L2	L2	L3	L3	L1	L1	L2	L2	L2	L2	
	VH	L2	L2	L3	L3	L3	L1	L2	L2	L3	L3	L3	
	EH	L2	L3	L3	L3	L3	L2	L2	L3	L3	L3	L3	
1.8	L	L1	L1	L1	L2	L2	L1	L1	L1	L1	L1	L1	
	M	L1	L2	L2	L2	L3	L1	L1	L1	L1	L2	L2	
	H	L2	L3	L3	L3	L3	L1	L2	L2	L3	L3	L3	
	VH	L3	L3	L3	L3	L4	L2	L3	L3	L3	L3	L3	
	EH	L3	L3	L3	L4	L4	L3	L3	L3	L3	L4	L4	
2.1	L	L1	L1	L2	L2	L2	L1	L1	L1	L1	L1	L1	
	M	L2	L2	L2	L3	L3	L1	L1	L1	L2	L2	L2	
	H	L2	L3	L3	L3	L3	L2	L2	L3	L3	L3	L3	
	VH	L3	L3	L3	L4	L4	L2	L3	L3	L3	L3	L3	
	EH	L3	L3	L4	L4	L4	L3	L3	L3	L4	L4	L4	
2.4	L	L1	L1	L2	L2	L2	L1	L1	L1	L1	L1	L1	
	M	L2	L2	L3	L3	L3	L1	L1	L1	L2	L2	L2	
	H	L2	L3	L3	L3	L4	L2	L2	L3	L3	L3	L3	
	VH	L3	L3	L4	L4	L4	L3	L3	L3	L3	L4	L4	
	EH	L3	L4	L4	L4	L4	SED	L3	L3	L4	L4	L4	
3	L	L1	L2	L2	L3	L3	L1	L1	L1	L1	L1	L1	
	M	L2	L3	L3	L3	L3	L1	L1	L2	L2	L2	L2	
	H	L3	L3	L3	L4	L4	L2	L3	L3	L3	L3	L3	
	VH	L3	L4	L4	L4	L4	SED	L3	L3	L3	L4	L4	
	EH	L3	L4	L4	SED	SED	L3	L4	L4	L4	SED	SED	
3.6	L	L2	L2	L2	L3	L3	L1	L1	L1	L1	L1	L1	
	M	L2	L3	L3	L3	L3	L1	L2	L2	L2	L3	L3	
	H	L3	L3	L4	L4	L4	L2	L3	L3	L3	L4	L4	
	VH	L3	L4	L4	SED	SED	L3	L3	L4	L4	L4	L4	
	EH	L4	L4	SED	SED	SED	L3	L4	L4	L4	SED	SED	
4.2	L	L2	L2	L3	L3	L3	L1	L1	L1	L1	L1	L1	
	M	L3	L3	L3	L3	L4	L1	L2	L2	L3	L3	L3	
	H	L3	L4	L4	L4	SED	L3	L3	L3	L4	L4	L4	
	VH	L4	L4	L4	SED	SED	L3	L4	L4	L4	L4	SED	
	EH	L4	L4	SED	SED	SED	L4	L4	L4	L4	SED	SED	
4.8	L	L2	L3	L3	L3	L3	L1	L1	L1	L1	L1	L1	
	M	L3	L3	L3	L4	L4	L1	L2	L2	L3	L3	L3	
	H	L3	L4	L4	L4	SED	L3	L3	L3	L4	L4	L4	
	VH	L4	L4	SED	SED	SED	L3	L4	L4	L4	SED	SED	
	EH	L4	SED	SED	SED	SED	L4	L4	SED	SED	SED	SED	

**Notes:**

Lintel spans and loaded dimensions measured in metres.

All frame nailing not indicated, refer to table 8.19 of NZS 3604:2011.

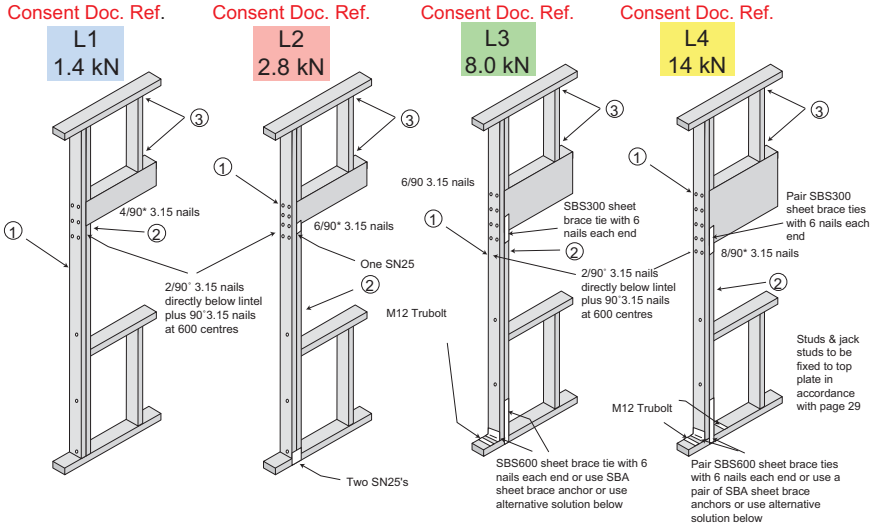
In all cases a 90mm thick external wall is assumed.

For girder truss loads use a minimum of: L3 where girder carries more than 10sq.m. of roof and L4 where girder carries more than 18sq.m. of roof.

600mm overhangs allowed for in the tables.

**SED** designates that a Specific Design is required.

**ACCEPTABLE SOLUTIONS IN CONJUNCTION WITH TABLES 8:14 & FIG 8:12 OF NZS3604:2011**



1. For trimming stud thickness refer to Table 8.5 NZS 3604:2011. Additional studs to that shown to have a minimum stud to stud fixing of 11/90\*3.15 nails.
2. Where a double stud which provides support for a lintel is shorter by 400mm or more than the full stud height, its thickness shall not be included as contributing to the thickness of trimming studs.
3. Studs & jacks to be fixed to top plate in accordance with the Top Plate to Stud Fixing Guide on pg. 39. Same fixing is required for jack stud to lintel.

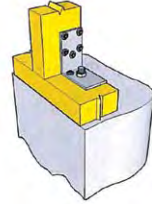
**Alternative solution for L3 & L4 SBS use**

**400 strap taker 400 straps  
 3 / 30 x 3.15 na with 3 / 30 x 3.  
 6 / 30 x 2.5 mn with 6 / 30 x 2.  
 stud of each stud**

*All capacities are limit state design values and not characteristic strength therefore these may be compared directly to Pryda design software output. Capacities assume a minimum timber grade of SG8.*

# PRYDA BRACING ANCHOR

The Pryda Bracing Anchor (PBA) has been designed to be used in conjunction with gypsum wallboard manufacturers bracing systems, references or literature. The PBA can satisfy the hold down requirements and is a substitute for the pre-fitted double strap or other bracing anchors / brackets.



**Product Code:** PBA

**Material:** 5mm electro galv steel

**Size:** 85/85 x 5 x 50mm

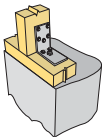
**Packing:** 10 sets per ctn (Set includes 2 x PBA plus 14 / 12g x 35mm T17 screws)

**Features:**

- Installation is quick and simple.
- No checking of timber frame to achieve a flush fitting of gypsum wallboard.
- PBA is a one piece anchor for either side of stud.
- Slotted bolt hole provides flexibility in bolt and bracket position ensuring a tight snug fit into stud and bottom plate.
- Can be retrofitted or installed at any stage prior to the fixing of interior gypsum wallboard.
- Allows easy and visible inspection.

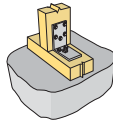
**Installation:**

- Identify where PBA is to be located from details below. Ensure PBA fits within the wall frame plane.
- Present PBA to junction of bottom plate and stud ensuring a snug fit to both surfaces referring to relevant floor installation detail below to ensure correct placement across face of bottom plate.
- Mark position of 15kN bolt or M12 screw using the PBA as a guide and remove PBA.
- Drill appropriate size hole for bolt or screw with reference to supplier's data sheet for correct hole size and use of the fastening.
- Place the PBA into position and fasten home the screw or bolt to a snug fit, ensuring face of PBA is tight against face of stud.
- Screw 5 / 12g x 35mm hex head tek screws in to the stud flange.
- Re-check the tightness of the M12 screw or 15kN bolt.
- Finally screw 2 / 12g x 35mm hex head tek screws into the bottom plate flange.



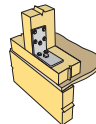
**External Brace Wall**

Minimum concrete edge distance shall be maintained in accordance with the 15kN proprietary fixing manufacturer's requirements.



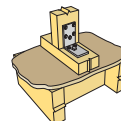
**Internal Brace Wall**

PBA shall be fixed centrally to the wall frame.



**External Brace Wall**

PBA shall be fixed centrally over a solid joist using an M12 x 150mm galv coach screw.



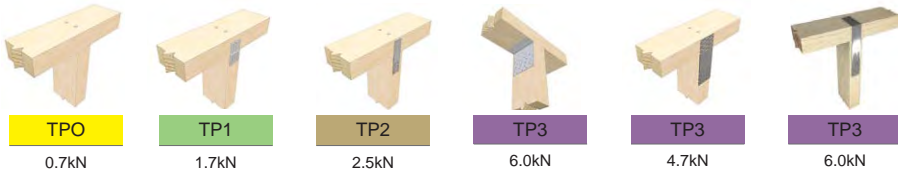
**Internal Brace Wall**

PBA shall be fixed centrally on the bottom plate using an M12 x150mm galv coach screw ensuring that screw is fixed centrally into a solid joist. Extra solid nog may be required to achieve solid fixing.

# TOP PLATE TO STUD FIXING GUIDE

## ALTERNATIVE SOLUTION TO NZS3604:2011 TABLE 8.18

It is proposed that Pryda Strapnails and Pryda Concealed Cleats be preferred as opposed to Pryda Z and U nails for ease of fixing and to lessen interference with the cladding.



Minimum Top Plate to Stud Joint Fixing Table for roof member 600, 900 & 1200 Centres										
Loaded Dimension (m)	Light Weight Roof Wind Zone					Heavy Weight Roof Wind Zones				
	L	M	H	VH	EH	L	M	H	VH	EH
2.0	TPO	TPO	TP1	TP2	TP3	TPO	TPO	TPO	TP1	TP2
3.0	TPO	TP1	TP2	TP3	TP3	TPO	TPO	TP1	TP2	TP3
4.0	TPO	TP2	TP3	TP3	TP3	TPO	TPO	TP2	TP3	TP3
5.0	TP1	TP2	TP3	TP3	TP3	TPO	TPO	TP2	TP3	TP3
6.0	TP2	TP3	TP3	TP3	TP3	TPO	TPO	TP3	TP3	TP3

Consent Doc Ref.	Fixing Capacity	Fixing Detail
TPO	0.7kN	2/End Nails
TP1	1.7kN	2/End Nails + MP2R4 Knuckle Plate
TP2	2.5kN	2/End Nails + MPSN2 Strapnail
TP3	4.7kN	2/End Nails + SN50L Strapnail
TP3	6.0kN	2/End Nails + NPPC8 with 3/T17 14g x 75mm hex head screws
TP3	6.0kN	2/End Nails + SST

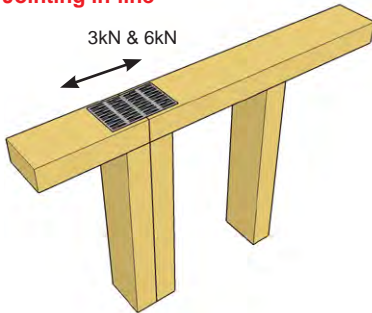
### Notes:

- Refer to NZS3604:2011 Table 8.19 and 8.18.
- All truss to top plates to be fixed as per truss manufacturer's fixing schedule and details .
- SG8 min dry wall framing with moisture content <18%.
- Studs at 600mm centres. For 400mm stud centres divide loaded dimension by 1.5.
- Nails specified are 90 x 3.15mm power driven or 100 x 3.75mm hand driven.
- Assumed that the top plate is 45mm.
- Ceiling Plate must be fixed to the top plate with a connection meeting and exceeding the capacity of the stud and top plate connection

# TOP PLATE JOINTING GUIDE

As per Cl.8.7.3 of NZS3604:2011

## Jointing in-line

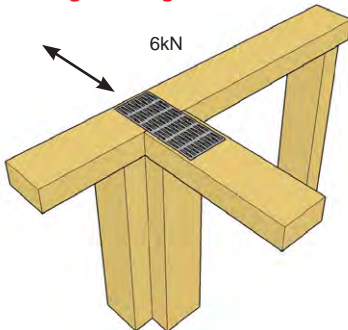


Pryda Connectors to achieve capacities

3kN: SN50 or MP6R5

6kN: SN50L or MP6R10

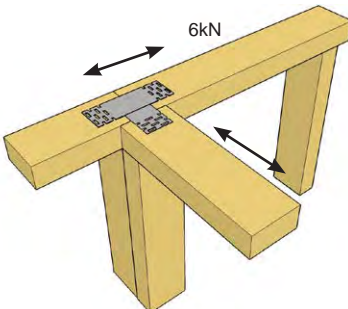
## Jointing at 90deg



Pryda Connectors to achieve capacities

6kN: SN50L or MP6R10

## Jointing in-line and 90deg



Pryda Connectors to achieve capacities

6kN: 2 x SN50L



## FRAME FIX

### Alternative Solution to NZS3604:2011 C8.5.1.6 and C8.7.5

Alternative solution where strengthening of top plate or stud is required after a notch or hole has been made, refer to NZS3604:2011 C8.5.1.6 and C8.7.5.

**Product Code:** PFF

**Material:** 1.65mm G300 Z275 galvanised steel

**Durability:** Suitable for use in closed environment as per table 4.1 NZS3604:2011

**Usage:** Designed to reinstate top plate or stud to FULL STRENGTH after a hole size up to 60mm has been drilled through the member.

- For internal vacuum and air conditioning systems
- Unique design provides greater top plate uplift resistance capacity
- Quick and easy to install to either top plate or stud
- Leaves clean faces to outside edges of the timber frames
- Fixing is by Type17 hex head screws
- Can be used with 90x45mm and 140x45mm

### Installation:

Use Type17 14g x 75mm hex head screws when fixing to top plate with a top plate packer. Use Type17 12g x 35mm hex head screws when fixing to stud.

Service hole shall be centred across the timber member and the hole to be a maximum of 60mm diameter.

Maximum stud height shall be 2400mm.

Service hole can be made in any position along the top plate or stud provided that the hole edge is no closer than 45mm from a stud or nog/dwang.

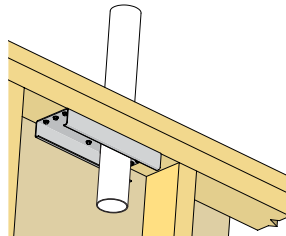
PFF shall be fitted to the inside of the frame to ensure clean outside faces of the timber.

All screws holes shall be filled.

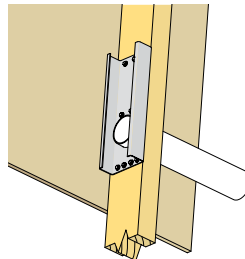
Not intended for use with 70 x 45mm timber.

Intended for use in internal 'closed space' as per Table 4.1 of NZS3604:2011.

### Top Plate Application

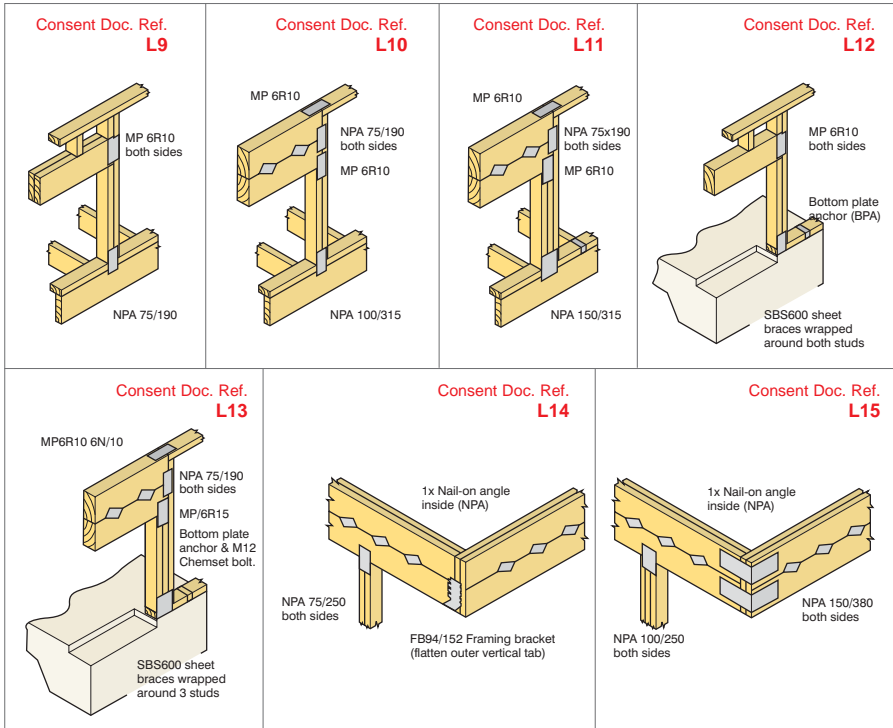


### Stud Application



# CLAW BEAM LINTELS

Claw Beams are engineered timber beams made of commonly available timber sizes which are mechanically joined together to make up large sections for long spans. The individual members are held together by Pryda Claw nail plates. Clawbeams are manufactured by licensed Pryda Fabricators.

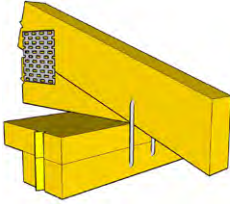


Roof Type	Beam Depths For Fixing Details Shown Above						
	L9	L10	L11	L12	L13	L14	L15
Light Roof standard trusses	150-200	250-300	350-600	150-200	250-300	-	-
Light Roof supported by Girder	-	150-250	350-600	-	150-300	-	-
Heavy Roof standard trusses	150-200	250-450	500-600	150-200	250-600	-	-
Heavy Roof supported by Girder	150-200	250-450	500-600	150-200	350-600	-	-
Light Roof cantilever	-	-	-	-	-	150-200	250-350
Heavy Roof cantilever	-	-	-	-	-	150-200	250-350

Details as specified are suitable for all wind conditions up to and including Very High wind, Extra High wind requires special engineering design.

# ROOF COMPONENT TIE DOWN CONNECTIONS

## Z-Nail

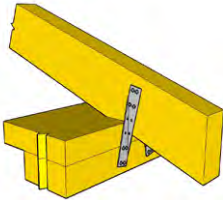


**Product Code:** MPZR, MPZL & MPZU  
**Durability:** Suitable for all roof spaces that are closed. Stainless required in open soffits. Compliant with Table 4.1 of NZS3604:2011.  
**Application:** Used in pairs when employed as a truss tie down.

Consent Doc. Ref	Product Code	Capacity Up Pair
Z	MPZR & MPZL	2.6kN
U	MPZU	2.4kN

**Note:** The Z-nails should extend to the lower wall plate and may not terminate in the ceiling plate.

## Ceiling & Purlin Hanger

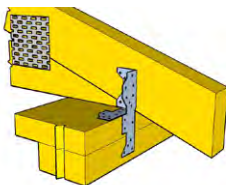


**Product Code:** CPH190 -LH & -RH  
**Durability:** Suitable for all closed roof spaces. Stainless required in open soffits. Compliant with Table 4.1 of NZS3604:2011.  
**Application:** Usually used in pairs when employed as a truss tie down. All holes filled with 35mm x 3.15mm Pryda product nails.

Consent Doc. Ref	Product Code	Capacity Up Pair
CP9	CPH190	5.0kN

**Note:** The fixing is only used as a left and right handed pair.

## Multigrip (long)



**Product Code:** MGL  
**Durability:** Suitable for all roof spaces that are closed. Stainless required in open soffits with MG/S with single top plate. Compliant with Table 4.1 of NZS3604:2011.  
**Application:** All holes filled with 30mm x 3.15mm Pryda product nails.

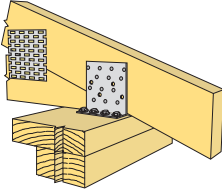
Consent Doc. Ref	Product Code	Capacity
X	MGL	2.6kN
2X	MGL (pair)	5.2kN

**Note:** MG (short) shall not be used in a double top plate scenario.

All capacities are limit state design values and not characteristic strength therefore these may be compared directly to Pryda design software output. Capacities assume a minimum timber grade of SGB.

# ROOF COMPONENT TIE DOWN CONNECTIONS

## Concealed Purlin Cleat



**Product Code:** NPPC4, NPPC6, NPPC8 or SBA

**Durability:**

Suitable for all closed roof spaces. Compliant with Table 4.1 of NZS3604:2011.

**Application:**

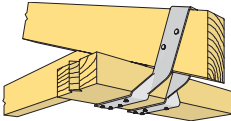
All holes in large flange filled with 35 x 3.15mm Pryda product nails or 12g x 35mm hex head screw. In small flange either Type 17 12g x 35mm or 14g 75mm hex head galv. screws.

Consent Doc. Ref	Product Code	Capacity Up	
		Single	Double
NC4	NPPC4	3.2kN	6.4kN
NC6	NPPC6	4.6kN	9.2kN
NC8	NPPC8	6.0kN	12kN

**Note:**

12g x 35mm screws can be used in single top plate.  
14g x 75mm screws required in top plates more than 45mm thick.

## Cyclone Strap



**Product Code:** MPQHS4, MPQHS6, QHS9

**Durability:**

Suitable for all closed roof spaces. Stainless not available. Compliant with Table 4.1 of NZS3604:2011.

**Application:**

Consent Doc. Ref	Product Code	Capacity Up	
		Single	Double
Q4	MPQHS4	5.0kN	10kN
Q6	MPQHS6	6.3kN	12.6kN
Q9	QHS9	6.3kN	12.6kN
Q6*	MPQHS6	11.2kN	22.4kN
Q9*	QHS9	11.2kN	22.4kN

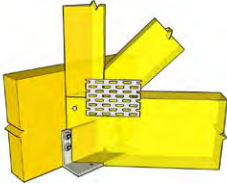
**Note:**

Values based on 6 nails per leg, except for MPQHS4 which can only hold 4 nails per leg  
\*With strap wrapped under support member.  
Single windstrap to be placed on the outside face of wall. The ceiling plate requires notching on the inside when used in double strap scenario.

All capacities are limit state design values and not characteristic strength therefore these may be compared directly to Pryda design software output. Capacities assume a minimum timber grade of SG8.

# ROOF COMPONENT TO ROOF COMPONENT CONNECTIONS

## Variable Skew Hanger



**Product Code:** LVSIA  
**Durability:**

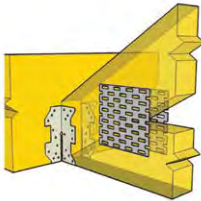
Suitable for all closed roof spaces. Stainless steel not available. Compliant with Table 4.1 of NZS3604:2011.

**Application:**

Suitable for short span trusses only to accommodate angles. Notch truss to achieve flush finish. Top flange - fill all screw holes with Type 12g 17 x 35mm hex head screws. Bottom flange - fix with one 6g 30mm type 17 bugle head screw. Skew nail fix top of bottom chord to bearer.

Consent Doc. Ref	Product Code	J5 Capacity	
		Up	Down
VS	LVSIA	1.3kN	2.8kN

## Multigrip



**Product Code:** MG\*/MGL  
**Durability:**

Suitable for all closed roof spaces. Stainless steel required in open roofs in Sea spray zone and zone 1 in order to be compliant with Table 4.1 of NZS3604:2011.

**Application:**

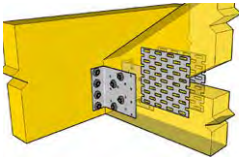
Variable width 90 degree connection option. Used in pairs when employed as a truss to truss fixing. All holes filled with 35mm x 3.15mm Pryda product nails.

Consent Doc. Ref	Product Code	J5 Capacity Pair	
		Up	Down
MG	MG	5.1kN	4.1kN

**Note:**

Long multigrip (MGL - 125mm long) to be used when top chord of supported truss is deeper than 90mm.

## Concealed Purlin Cleat



**Product Code:** NPPC8  
**Durability:**

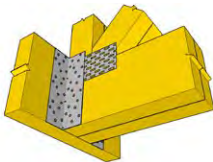
Suitable for all closed roof spaces. Compliant with Table 4.1 of NZS3604:2011.

**Application:**

Variable width connection utilising screws. All screw holes filled.

Consent Doc. Ref	Product Code	J5 Capacity Pair	
		Up	Down
NC8	NPPC8	8.6kN	6.8kN

## Nail-on Angle



**Product Code:** NPA  
**Durability:**

Suitable for all closed roof spaces. Compliant with Table 4.1 of NZS3604:2011.

**Application:**

Variable width connection utilising nails. Suitable for a high truss uplift and gravity loads. All nail holes to be filled

Consent Doc. Ref	Product Code	J5 Capacity Pair	
		Up	Down
NPA	NPA	20.5kN	16.4kN

The down capacities provided above are for 1.2G+1.5Qr (Dead+Roof Live Load). All capacities are limit state design values and not characteristic strength therefore these may be compared directly to Pryda design software output. Capacities assume a minimum timber grade of SG8.

# ROOF PLANE DIAGONAL BRACING

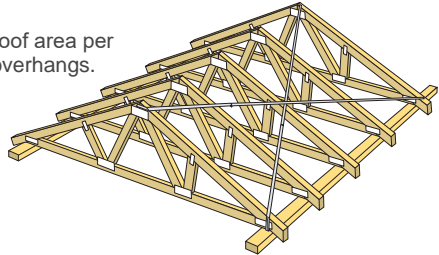
**AS PER NZS3604:2011 SECTION 10**

## ROOF BRACE Definition

A “roof brace” comprises a diagonal pair of Pryda Strap Braces intersecting at 45°, connecting the ridge of the roof to the top plate of the wall with both ends fixed as shown in the diagrams below. A “roof brace” can also be a valley or hip connected continuously.

## Light Weight Roofs

Require ONE “roof brace” in each plane of the roof area per 50m<sup>2</sup> of plan roof area which also includes any overhangs.

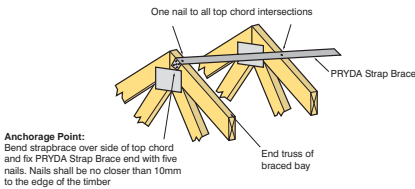


## Heavy Weight Roofs

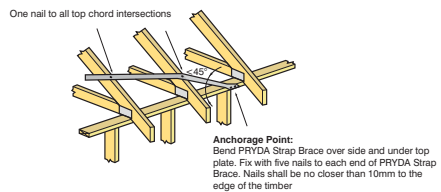
Require ONE “roof brace” in each plane of the roof area per 25m<sup>2</sup> of plan roof area which also includes the overhangs.

Note: Porches, dormers and small roof planes of less than 6m<sup>2</sup> do not require bracing.

**END FIXING DETAIL AT APEX**



**END FIXING DETAIL TO TOP PLATE**

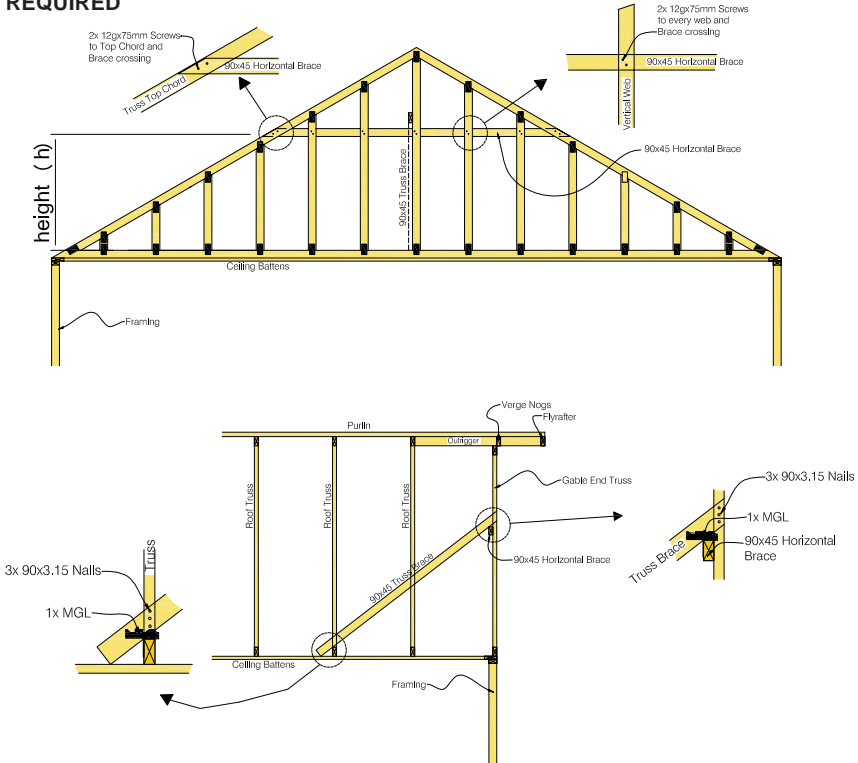


## Installation Notes

1. The distribution of roof braces should be performed in an even and balanced fashion
2. For purlins / battens 50mm or deeper, the roof brace shall occupy the plane directly on top of the top chords or rafters
3. Pryda Strap Brace shall be used for spans up to 12m. For spans over 12m Pryda Maxibrace shall be used
4. Nail off Pryda Strap Brace at apex end with 5 nails. Layout Pryda Strap Brace at 45° and nail off at heel end with 5 nails
5. Tension Pryda Strap Brace using Pryda Tensioner before final nailing of one nail per top chord crossing

# GABLE TRUSS WEB LATERAL BRACING GUIDE

## MAXIMUM HEIGHT (H) FOR VERTICAL TRUSS WEB BEFORE A LATERAL BRACE IS REQUIRED



	Web size (mm) SG8 or better	Wind Zone				
		Low	Medium	High	Very High	Extra High
Single Truss	70x45 SG8 at 400crs	2200	2000	1750	1600	1500
	90x45 SG8 at 400crs	2400	2150	1900	1850	1650
	70x45 SG8 at 600crs	1900	1700	1500	1400	1250
	90x45 SG8 at 600crs	2100	1900	1650	1500	1400
Double Trusses	2/70x45 SG8 at 400crs	2800	2550	2250	2050	1900
	2/90x45 SG8 at 400crs	3050	2750	2450	2250	2100
	2/70x45 SG8 at 600crs	2450	2200	1950	1750	1650
	2/90x45 SG8 at 600crs	2650	2400	2100	1950	1800

## PRODUCT SUBSTITUTION

The Building Act was amended in July 2009 to provide for minor variations to building consents. Subsequently the "Building (Minor Variations) Regulations 2009 came into effect on 1 February 2010.

The reasons for amending the Act to allow for minor variations were to:

- Formalise a number of pragmatic and efficient practices already being operated by some BCAs to deal with minor changes during construction.
- Improve national consistency in BCA practices.
- Enable BCAs to lawfully distinguish between minor and other more significant changes to building consents and treat them differently.
- Provide time and cost savings for building owners, builders, BCAs and others when dealing with minor changes to building work for which a consent has already been granted.

Examples of variations that are minor to building consents include:

- Substitute one internal lining for another.
- Minor wall bracing changes.
- A change to a component (for example fixing bracket).
- A construction change (for example the framing method around a window when the window is changed to a door).

Where a minor variation is proposed all parties, eg designers, builders, BCA's, are responsible for managing the process and early communication is paramount. In most cases the applicant will need to supply specific product information to show compliance with the building.

All such information for Pryda products is included within this builders guide.

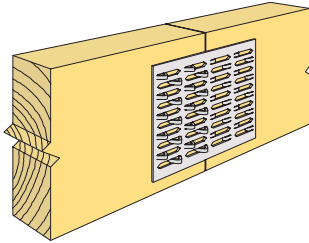
For any additional product information please contact Pryda on 0800 88 22 44.

Andre' van Blerk  
BSc (Eng) CPEng CMEngNZ IntPE  
Senior Structural Engineer  
Pryda NZ (A division of ITW)



## PRYDA SUBSTITUTION GUIDE

### Knuckle Nail plates (Tylok Plate)



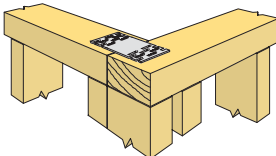
Competitor Code	Pryda Code	Dimensions
2T4	MP2R4	33 x 63mm
2T5	MP2R5	38 x 63mm
4T5	MP4R5	38 x 127mm
6T5	MP6R5	38 x 190mm
8T5	MP8R5	38 x 254mm
4T10	MP4R10	76 x 127mm
6T10	MP6R10	76 x 190mm
8T10	MP8R10	76 x 254mm
10T10	MP10R10	76 x 317mm
-	MP4R16	134 x 127mm
6T20	MP6R16	134 x 190mm

### Knuckle Nail plates Coil (Tylok Coil)



Competitor Code	Pryda Code	Dimensions
Coil T10	NCR10	76mm x 12.7m
Coil T20	NCR16	134mm x 8.45m

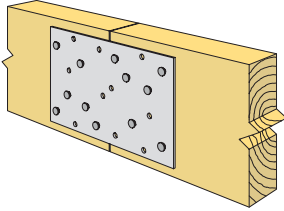
### Strap Nail (Strap Nail)



Competitor Code	Pryda Code	Dimensions
SNS	SN25 or MPSN2	25x100mm
—	SN50 or MPSN50	50x100mm
—	SN50L	50x150mm

\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

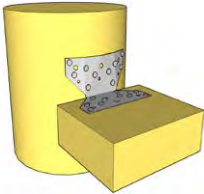
**Nail-on Plate**  
(Nail On Plate)



Competitor Code	Pryda Code	Dimensions
—	NPA75 BAR^	1 x 75 x 1260mm
—	NPA75/190	1 x 75 x 190mm
—	NPA75/250	1 x 75 x 250mm
—	NPA75/315	1 x 75 x 315mm
—	NPA75/380	1 x 75 x 380mm
NP1	NPA100BAR^	1 x 100 x 1260mm
NP120	NPA100/190*	1 x 100 x 190mm
NP132	NPA100/315	1 x 100 x 315mm
—	NPA150/315	1 x 150 x 315mm
RAFTERSPLICE	NPB75/380	2 x 75 x 380mm
—	NPB75 BAR	2 x 75 x 1260mm
NP2	NPB100BAR	2 x 100 x 1260mm
—	NPB150BAR	2 x 150 x 1260mm

^ Only available in stainless steel

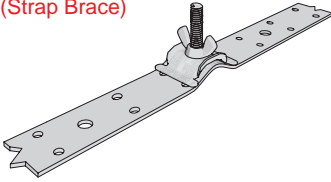
**Pole to Girt Bracket**  
(Girt Plate)



Competitor Code	Pryda Code	Dimensions
GIRTPLATE	NPP2G*	—

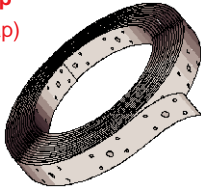
\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Strap Brace**  
(Strap Brace)



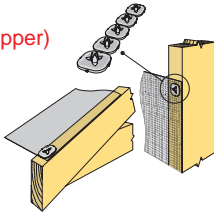
Competitor Code	Pryda Code	Dimensions
SB10	SB10	25 x 0.8mm x 10m
SB30	SB30	25 x 0.8mm x 30m
SB30T	SB30T	25 x 0.8mm x 30m 5x Tensioners
SBTENS	SBT*	Tensioners
SB15/S		25x0.8mm x15m stainless

**Maxi Strap**  
(Maxi Strap)



Competitor Code	Pryda Code	Dimensions
MB15	SBI/15	50 x 0.8mm x 15m
MB30	SBI*	50 x 0.8mm x 30m
MBTENS	SBI/T	Tensioners

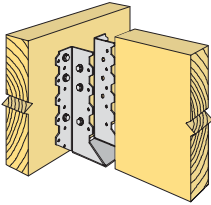
**Fixes**  
(Little Gripper)



Competitor Code	Pryda Code	Dimensions
LG	SFI	Pryda Fix 30 x 30mm

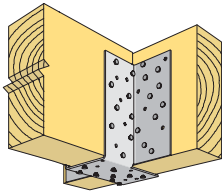
\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Framing Brackets**  
(Joist Hangers)



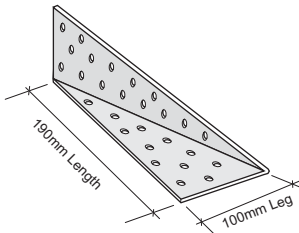
Competitor Code	Pryda Code	Dimensions
JH4790	MPFB4590*	47mm x 77mm
JH47120	MPFB45120*	47mm x 111mm
JH47190	MPFB45180*	47mm x 177mm
JH5290	MPFB5274	52mm x 74mm
JH52120	MPFB52124*	52mm x 124mm
JH52190	MPFB52174	52mm x 177mm
—	FB65/170	65mm x 170mm
JH95	FB94/152*	94mm x 152mm
—	FB90200	90x195mm

**Heavy Duty Joist Hangers**  
(Split Hangers)



Competitor Code	Pryda Code	Dimensions
SPH180	JHH100	For 95mm timber
SPH220	JHHS	Adj. width
	JHSS212	212mm
	JHSS275	275mm

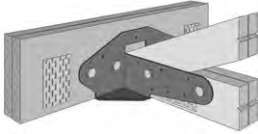
**Nail-on Angle & Diagonal Cleat**  
(Diagonal Cleat)



Competitor Code	Pryda Code	Dimensions
NP160F	NPA	50x50x1x190mm
N21	NPD	Ex 190 x 100 x 1mm plate

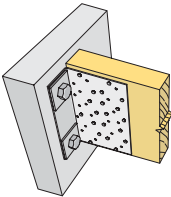
\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Truss Boots**



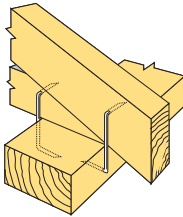
Competitor Code	Pryda Code	Dimensions
—	TB45/16	Truss Boot
—	TBHD75	Heavy Duty Truss Boot

**Tim-Con Brackets  
(Concrete Fixing Cleat)**



Competitor Code	Pryda Code	Dimensions
CF1	TCF130	130 x 2.0mm
CF2	TCF190	190 x 2.0mm

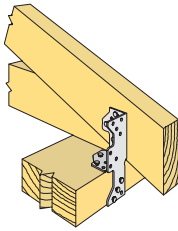
**Z & U Nails  
(Wire Dogs)**



Competitor Code	Pryda Code	Dimensions
—	MPZL*	—
—	MPZR*	—
—	MPZU*	—

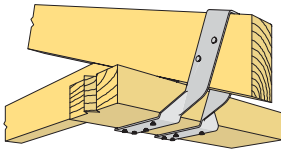
\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Multigrip**  
(Multigrip)



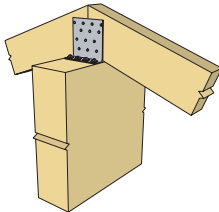
Competitor Code	Pryda Code	Dimensions
—	MG* or MPMG*	36x36x100mm
MGS	MGL	36x36x132mm

**Cyclone Straps**  
(Cyclone Ties)



Competitor Code	Pryda Code	Dimensions
CT400	MPQHS4	32 x 1.2 x 400mm
CT600	MPQHS6	32 x 1.2 x 600mm
—	QHS9	32 x 1.2 x 900mm

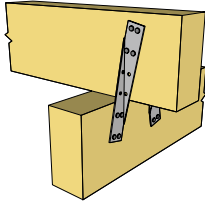
**Concealed Purlin Cleats**  
(Concealed Purlin Cleats)



Competitor Code	Pryda Code	Dimensions/Rating
CPC40	NPPC4*	40 x 2.0mm
—	NPPC6	60 x 2.0mm
CPC80	NPPC8*	80 x 2.0mm
SBP	SBA	6kN / 12kN
9KNTPP	TTP9KN	9kN
16KNTPP	TTP16KN	16kN

\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Ceiling & Purlin Hanger  
(Ceiling Tie)**



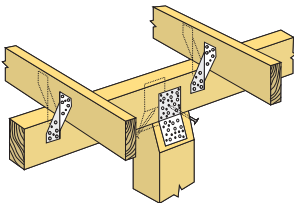
Competitor Code	Pryda Code	Dimensions
CT200LH	CPH190-LH*	190 x 25mm LH
CT200RH	CPH190-RH*	190 x 25mm RH

**Easy Stud Tie**



Competitor Code	Pryda Code	Dimensions
STUDSTRAP	SST	185/65x30mm

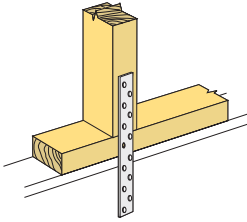
**6kN & 12kN Pile Bearer Kit  
(Subfloor Fixings)**



Competitor Code	Pryda Code	Dimensions
6KNH	PBK6/S	6 kN Severe Corrosion
12KNH	PBK12/S	12 kN Severe Corrosion
CT160HD	NPD150/63/S	150 x 50mm

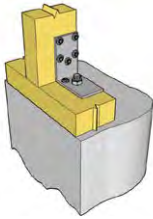
\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Sheet Brace Strap**



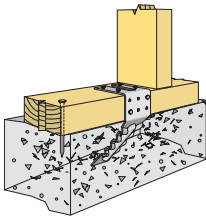
Competitor Code	Pryda Code	Dimensions
SBS3100	SBS300*	25x1x300mm
SBS4100	SBS400*	25x1x400mm
SBS6100	SBS600*	25x1x600mm
	SBS30M	25x1x30m
SBP	SBA	6kN Anchor

**Pryda Brace Anchor  
(Gib Handibrac®)**



Competitor Code	Pryda Code	Dimensions
Gib Handibrac	PBA	50x5x85/85mm

**Bottom Plate Tie Down  
(Bottom Plate Fixing Anchor)**

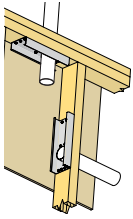


Competitor Code	Pryda Code	Dimensions
BPA	BPA	50x1.2x235mm

\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

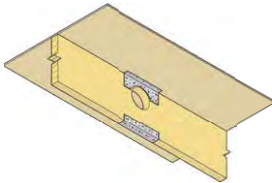


**Frame Fix**  
(Top Plate / Framing Stud Stiffener)



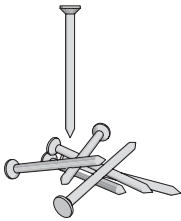
Competitor Code	Pryda Code	Dimensions
TPS & FSS	PFF	85x1.6x240mm

**Stren-joist**



Competitor Code	Pryda Code	Dimensions
—	NPSJ	3 pce kit for 45mm
	NPSJD	3 pce kit for 90mm

**Product Nails**



Competitor Code	Pryda Code	Dimensions
PN300500	OSNGB	500gm Clam

**Screws**

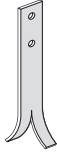


Competitor Code	Pryda Code	Dimensions
SC3512DG	HH1235G*	12g x 35mm type 17
SC7514EG	HH1475S	14g x 75mm type 17

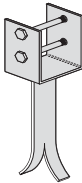
\* All available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Structural Brackets**

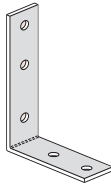
Rag Strap



Post Support



Angle Brackets



Strap

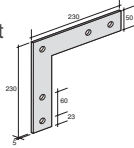


Competitor Code	Pryda Code
B78	SBK3■
B79	SBK3H■
B75	SBK4■
B195	SBK5■
B197	SBK6■
B138	SBK8■
B135	SBK9■
B12	SBK15
B14	SBK16■
B25	SBK17■
B28	SBK18■
B351	SBK10
B51	SBK10A■
B52	SBK11A
B53	SBK12A
B350	SBK14
B50	SBK14A■
—	SBK34
B54	SBK52A
B55	SBK53
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B85	SBK23■
B88	SBK25■
B35	SBK27■
B38	SBK28

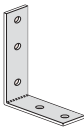
\* Electroplated. ■ Also available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

**Structural Brackets**

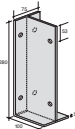
L Bracket



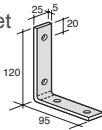
Angles



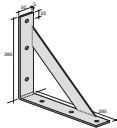
Beam Support



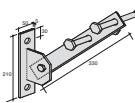
Shelf Bracket



Angles Gusseted



Pole Brace



Fence Stay



Competitor Code	Pryda Code
B45	SBK29■
B48	SBK30
B175	SBK31■
B176	SBK31A■
—	SBK32■
B177	SBK33■
B178	SBK33A■
B109	SBK38■
B98	SBK38A■
—	
B553	SBK41
B554	SBK42
B567	SBK50
B163	SBK36
B65	SBK55
B68	SBK55A
B165	SBK56
B145	SBK57■
B155	SBK37
BSB1	SBKFS

\* Electroplated. ■ Also available in stainless steel. Please Note: Whilst reference is made to competitor products it is intended as best fit only and may not be an identical match - if in doubt check.

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[www.pryda.co.nz](http://www.pryda.co.nz)

FOR MORE INFORMATION CALL 0800 88 22 44 OR EMAIL [INFO@PRYDA.CO.NZ](mailto:INFO@PRYDA.CO.NZ)

VER DEC 2020