

# NZ PRYDA STREN-JOIST

The Pryda Stren-Joist has been designed to allow holes to be cut in floor joists. The fitting of a Pryda Stren-Joist re-instates the integrity of the penetrated joist.

## FEATURES AND BENEFITS

**SIMPLE:** Comes in easily fitted parts for retrofitting on site if required with all necessary fasteners provided with one of the available fixing methods.

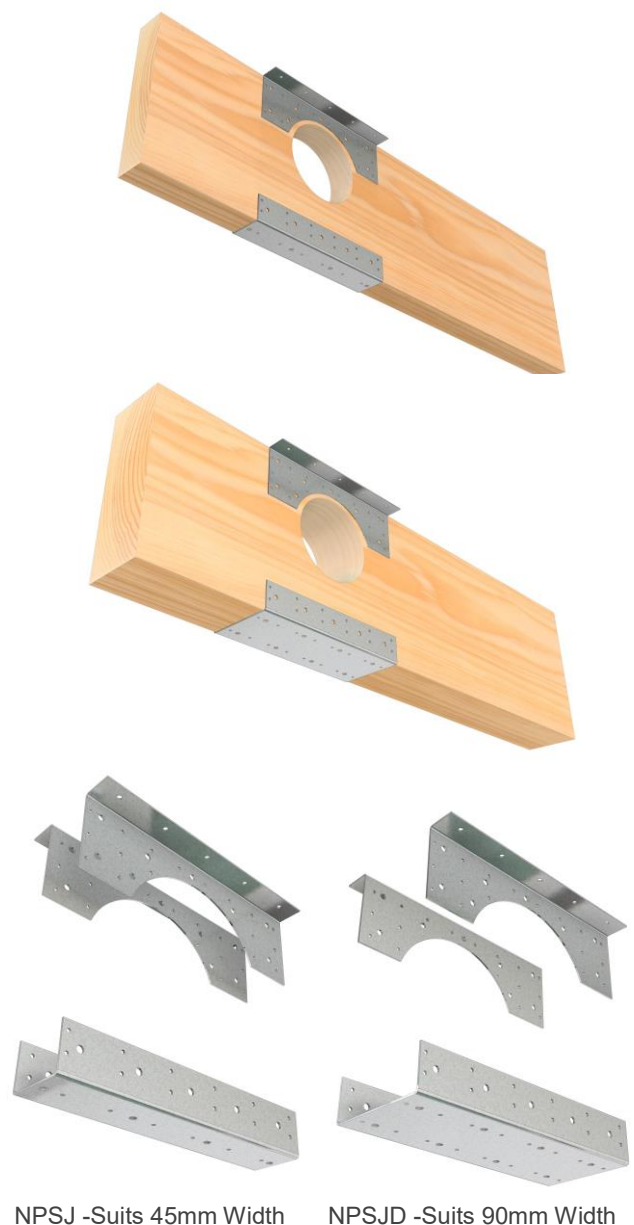
**FAST:** Fixed with nails and screw using standard onsite hand tools.

**DURABLE:** 1.6mm thick, Z275 galvanised steel.

## SPECIFICATIONS

<b>PRODUCT CODE</b>	NPSJ, NPSJD
<b>STEEL</b>	G300
<b>THICKNESS</b>	1.6mm
<b>CORROSION RESISTANCE</b>	Z275
<b>FASTENERS REQUIRED</b>	Pryda 30 x 3.15mm Timber Connector Nails 8G x 20mm screws  (Optional) Pryda 12G x 35mm Timber Connector Screws - painted red head
<b>HEIGHT</b>	Suitable for joist 140mm - 290mm
<b>WIDTH</b>	45mm, 90mm
<b>QUANTITY</b>	Refer to product table for specific kit details

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



\*All dimensions shown are in "mm".

## DURABILITY

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

Pryda Stren-Joist is only available in Z275, therefore suitable for “Closed” environment.

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

Notes:

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

## STORAGE AND HANDLING

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

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

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

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

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

## ALTERNATIVE SOLUTION TO NZS3604:2011

Alternative solution for 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.

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.

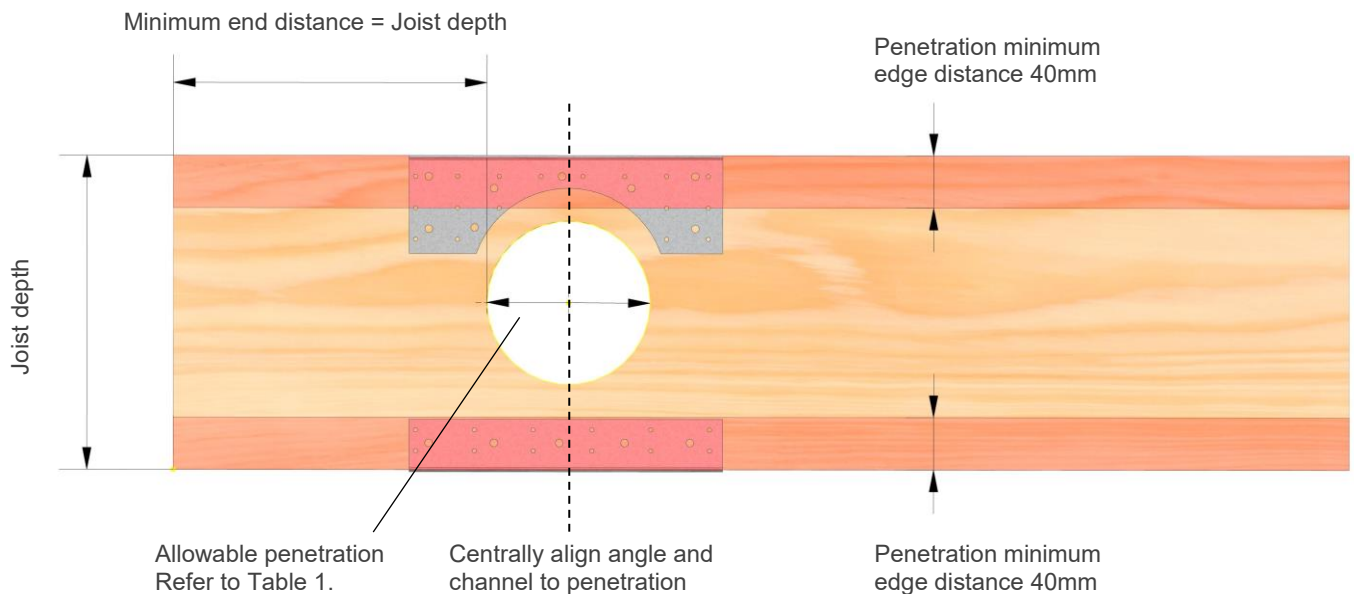
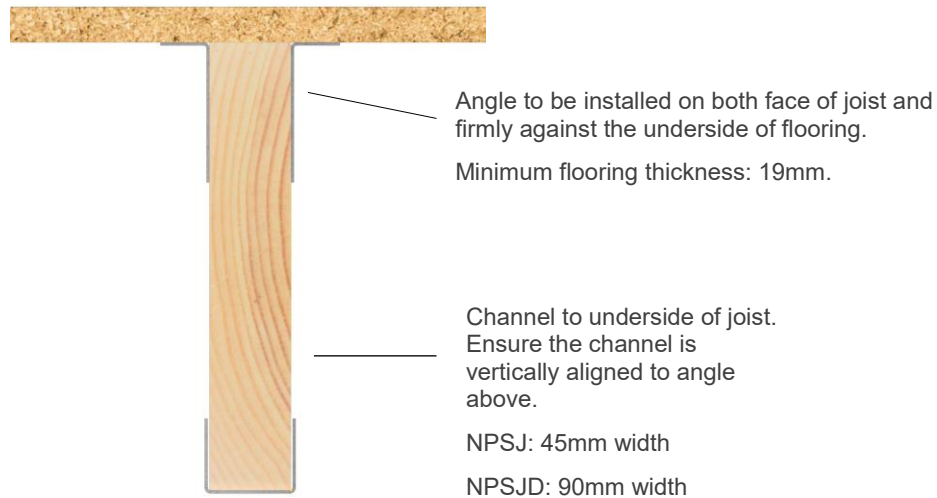
NPSJ JOIST SIZE (MM)	MAXIMUM HOLE SIZE (MM)	NPSJD JOIST SIZE (MM)	MAXIMUM HOLE SIZE (MM)
140 x 45	60	140 x 90	60
190 x 45	110	190 x 90	100
240 x 45	125	240 x 90	110
290 x 45	125	290 x 90	110

Table 1: Maximum Hole Size

## APPLICATION AND SCOPE OF USE

Pryda Stren-Joist is certified when used and installed in accordance with the product datasheet shown connection details. Pryda fasteners approved for the installation form an integral part of the connection and therefore should be used with all Pryda products installation unless otherwise approved by a certified structural Engineer. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS 3604:2011 Table 4.1. (Refer to Durability section for more details).

## INSTALLATION CRITERIA



## INSTALLATION

- Use NPSJ/NPSJD to locate and correct vertical location of hole along the joist. Care shall be exercised when installing NPSJ in 140 x 45mm or NPSJD in 140 x 90mm joist where hole location is critical.
- 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 1 for maximum hole size in joist.
- Penetration region within joist depth shall be free from natural defects such as knots (all types), checks, shakes, wane, twist, cupped, bowed, crooked, splits, and any defects that may compromise the structural integrity of the joist. Example, joist depth 240mm. Within 240mm of penetration, joist shall be free from all defects.
- 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 / 8G x 20mm screws for top flange).
- Present channel to underside of joist and nail or screw into place ensuring a tight and snug fit.
- If hex screw fixing option is used, then 30 / 12G x 35mm T17 hex head screws are required (not supplied with the NPSJ or NPSJD 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.

## INSTALLATION: NPSJ

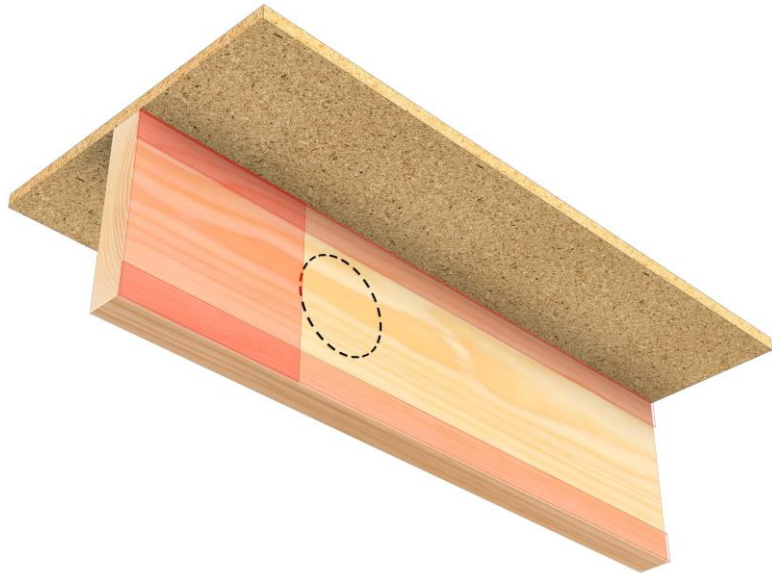
### STEP 1

- Mark hole location within the allowable region. See Installation Criteria for more details on penetration exclusion zone. Refer to Table 1 for maximum hole size for selected joist depth and width.

#### Shaded Regions

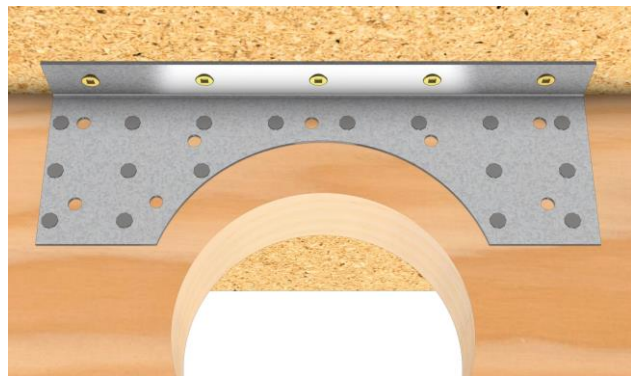
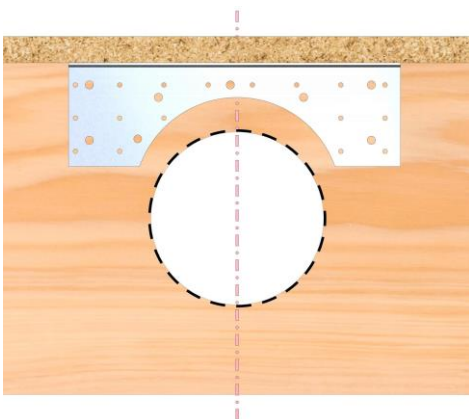
Penetration minimum edge distance 40mm

Penetration minimum end distance = Joist depth



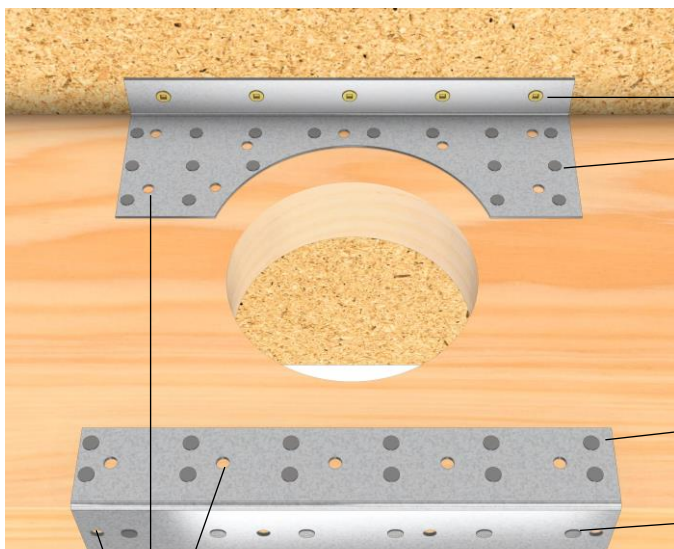
### STEP 2

- Drill hole and mark center line to locate NPSJ angle.
- Vertically center angle to hole and ensure angle is firmly against joist and underside of flooring.
- Fully nail fix angle to joist using supplied 17 nails into small holes. Alternatively, 9 x Pryda 12G x 35mm Timber Connector Screws. (Not Supplied in kit).
- Fasten short flange to underside of flooring with 5 x 10G x 20mm counter sunk screws.
- Repeat the same on opposite face. A pair of NPSJ angles are required for each installation.



**STEP 3**

- Install channel to underside of joist. Ensure channel is vertically aligned with top angles.
- Begin by fixing channel to underside of joist to ensure firm seating of joist into channel.
- Fully nail fix channel to joist using supplied 30 nails into small holes. 24 nails to face and 6 nails to underside.
- Alternatively, 14 x Pryda 12G x 35mm Timber Connector Screws. 10 screw to face and 4 screws to underside. (Not Supplied it kit)



EACH ANGLE

5 x 10G x 20mm counter sunk screws.

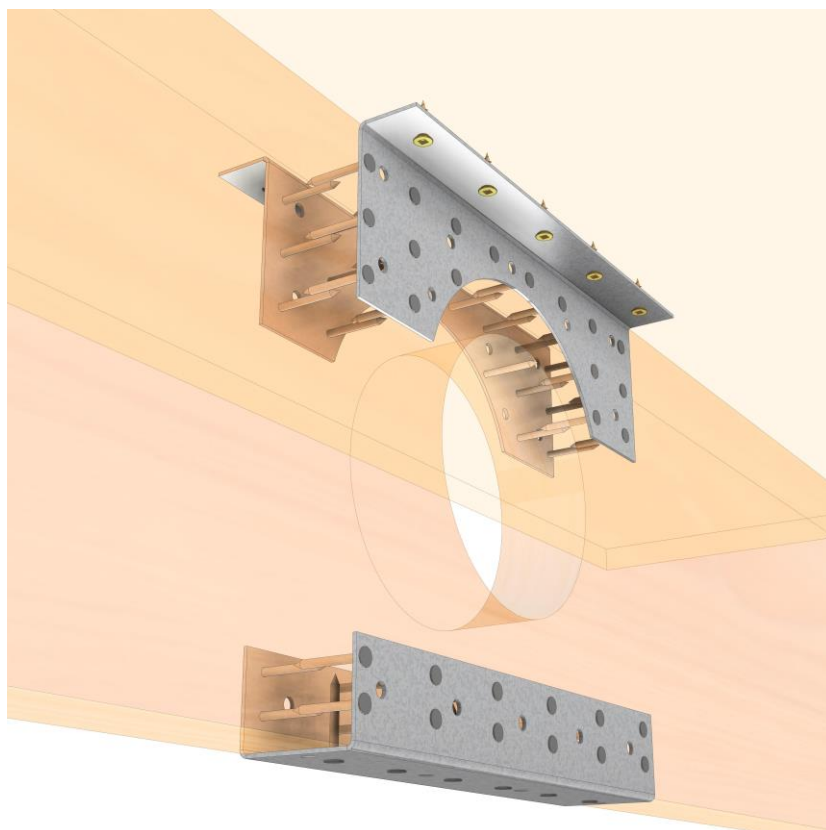
17 x Pryda 30 x 3.15mm Timber Connector Nails

CHANNEL

12 x Pryda 30 x 3.15mm Timber Connector Nails each face. 24 nails in total to faces.

6 x Pryda 30 x 3.15mm Timber Connector Nails to underside.

Alternatively, larger holes can be filled instead using Pryda 12G x 35mm Timber Connector screws. Only select either nail fix (supplied) or screw fix.



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