



DESIGN GUIDE

BRACKETS & FIXES

2022

BRACKETS & FIXES - DESIGN GUIDE

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Product Information Updates

Information contained in this product guide is subject to change.

The latest updates are available from www.pryda.com.au.

ESSENTIAL NOTES

Introduction

The information in this Product Guide is provided for use in Australia by architects, engineers, building designers, builders and others. It is based upon the following criteria:

- 1. No Substitution:** The products covered by or recommended in this guide must not be substituted with other products.
- 2. Design Capacity Basis:** See Codes & Standards following.
- 3. Supporting Constructions:** Constructions using Pryda products must be built in accordance with the NCC (BCA) or an appropriate Australian Standard. *Note: This includes appropriate corrosion protection- See Corrosion Protection following.*
- 4. Correct Installation:** Installation of Pryda products must be strictly in accordance with the instructions in this guide.
- 5. Current Guide Version Used:** The current version of this guide, including any amendments or additions, must be used. Users are advised to check the Pryda website, www.pryda.com.au, on a regular basis for the most current design guides.

Codes & Standards

Product design capacities in this guide have been derived from:

- Results of laboratory tests carried out by or for Pryda Australia
- Engineering computations in accordance with the relevant Australian Standards, ie:
 - AS1720.1-2010 Timber Structures. Part 1: Design Methods.
 - AS/NZS1170 series Structural Design Actions.
 - AS4055-2006 Wind Loads for Housing.

Design capacities tabulated in this guide apply directly for **Category 1** joints. For all other joints, reduce design capacities by using the factors as specified in *General Notes (if applicable)*. Design capacities are related to the **Joint Group** of the timber as defined in AS1720 and AS1684. If the Joint Group of timber members joined together varies, the lower group must be assumed for design, for example, JD5 is lower than JD4.

Definitions

Special terms used in this guide are as defined in Australian Standards, including:

Design Capacity: The maximum Limit State Design load (aka "action") which the product can safely support under the specified load condition, eg, 1.2G + 1.5Q (dead+roof live). *See General Notes for details (if applicable).*

Joint Group: Classification of a timber according to its fastener-holding capacity. *See General Notes for details (if applicable).*

Corrosion Protection

Most Pryda products are manufactured using Z275 light-gauge steel, having zinc coating of 275 gsm (total weight). This protection is adequate only for INTERNAL applications in most corrosive environments, except areas that are classified as heavy industrial or those subject to high humidity (eg, enclosed swimming pools). Under these circumstances, seek advice from experts as special protection will be required. *Note: INTERNAL areas are those within the building envelope that are kept permanently dry.*

AS1684.2-2010 and AS1684.3-2010, Australian Standards for Residential Timber Frame Construction stipulate a minimum Z275 steel for all sheet metal products used in an internal environment.

In areas outside the building envelope that are exposed to repeated wetting (EXTERNAL areas), Pryda's stainless steel products or equivalent should be considered. Some alternatives include hot dip galvanised or powder coated steel, which are not supplied by Pryda. For more detailed information, read Pryda's Technical Update on *Corrosion Resistance of Pryda Products* or contact a Pryda office.

Product Certification

Pryda Australia warrants:

- Products in this guide are free from defects in the material and manufacturing
- Design capacities are in accordance with test results or current, relevant Australian Standards and the Building Code of Australia.
- Pryda products are structurally adequate provided they are designed, installed and used completely in accordance with this guide.

This warranty applies only to:

- Products in this guide.
- Products used in the specified applications and not damaged after manufacture and supply.
- Joints free from wood splitting, decay or other timber defects at the joint or within 150 mm of the joint.

Instructions for Installation

These notes are provided to ensure proper installation.

- All fasteners used must be manufactured by reputable companies and be of structural quality.
- Connectors must not be installed on timber which is split before or during installation. If the timber is likely to split as fasteners are driven, fastener holes must be pre-drilled.
- Do not overload the joints during construction or in service.
- Hole diameter for bolts in seasoned timber must not be more than 1.0 mm larger than the bolt diameter to achieve a snug-tight connection. Specified washers must be installed against the timber face.
- Use proper safety equipment and due care in installing these connectors.
- Any gaps in joints between the timber members must not exceed 3 mm.
- Do not over-tighten screws.

GENERAL NOTES

Timber Joint Groups

Joint groups for some common timber are tabulated below. A more comprehensive table is given in AS1720.1 Timber Structures Part 1: Design Methods.

TIMBERS	STRENGTH GROUP		JOINT GROUP	
	DRY	GREEN	DRY	GREEN
Oregon (Douglas fir) – America	SD5	S5	JD4	J4
Oregon from elsewhere	SD6	S6	JD5	J5
Radiata pine, heart-excluded	SD6	NA	JD4	NA
Radiata pine, heart-in	SD6	NA	JD5	NA
Slash pine	SD5	S5	JD3	J3
Ash type hardwoods from Vic, NSW highlands & Tas	SD4	S4	JD3	J3
Non-Ash type hardwoods from Qld & NSW	SD3	S3	JD2	J2

Material Thickness

All material thicknesses referred to in this guide are the total coated thickness. This includes the zinc coating thickness, which is typically around 0.04mm for Z275 steel.

Machine Driven Nail Use

Where appropriate, 32x2.3 mm Duo-Fast C SHEG (ie: screw hardened electro galvanized) machine driven nails (code D40810) or equivalent may be used instead of the specified 35x3.15 mm Pryda Timber Connector Nails to fix Pryda connectors provided that:

- 20% more nails are used (eg: 5 instead of 4, 4 instead of 3, 3 instead of 2) or alternatively, design capacities are to be reduced by 20% where the same number of nails are used
- machine driven nails are driven at nail spacings and edge distances similar to the hole pattern, ensuring that these nails are not driven into the holes or located not closer than 5mm from the edge of a hole.

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

Important considerations includes:

- Driven into the blank metal between the pre-punched holes
- not located closer than 5mm from the edge of a hole
- not tightly clustered together
- not within 15 mm from the edge of the supported beam or 10mm from the edge of the supporting beam
- Screw hardened, electro galvanised Paslode nails that are appropriate include:
 - Duo-Fast C SHEG 32 x 2.3 (D40810)
 - Paslode 32 x 2.5 mm (B25110)
 - Duo-Fast 32 x 2.5 mm (D41060)
 - Pas Coil 32 x 2.5 SHEG 2 Pack (B25250)
 - Impulse 32 x 2.5 SHEG (B40020)

Design Load Cases

Following is a description of the combined load cases adopted in this design guide. These load cases are in compliance with AS/NZS1170.0:2002 – Structural design actions Part 0:General principles.

LOAD CASE	DESCRIPTION
1.35G	Permanent Action (or Dead Load) only
1.2G+1.5Qr	Permanent and Roof Imposed Actions (or Dead & Roof Live)
1.2G+1.5Qf	Permanent and Floor Imposed Actions (or Dead & Floor Live)
1.2G+Wd	Permanent and Wind Down Actions (or Dead & Wind down)
Wind Uplift (0.9G – Wup)	Permanent and Wind Up Actions (or Dead & Wind up)

Design Loads & Capacities

The tabulated capacities are for Category 1 joints. For all other joints, reduce design capacities by using the following factors:

- Category 2 Joints: **0.94**
- Category 3 Joints: **0.88**

Note: Category 1 joints are defined in Table 2.2 AS1720.1:2010 as structural joints for houses for which failure would be unlikely to affect an area of 25 sqm OR joints for secondary elements in structures other than houses.

Fixing into steel supporting structure

Pryda products can be fixed into steel using Tek screws or similar. Design Capacities can be obtained at request from a Pryda Design Office.

ANTI-CRUSH PLATE

FEATURES AND BENEFITS

EASY: Simple design

FAST: Fixed with Pryda Connector Nails 35x3.15mm

VERSATILE: Can improve bearing capacity for Prefabricated trusses or stick build components. Common applications are where girder trusses are supported on corner wall junctions and on internal supports.

SPECIFICATIONS

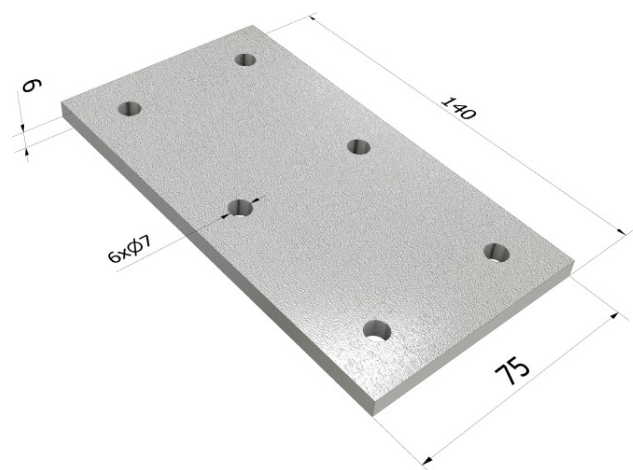
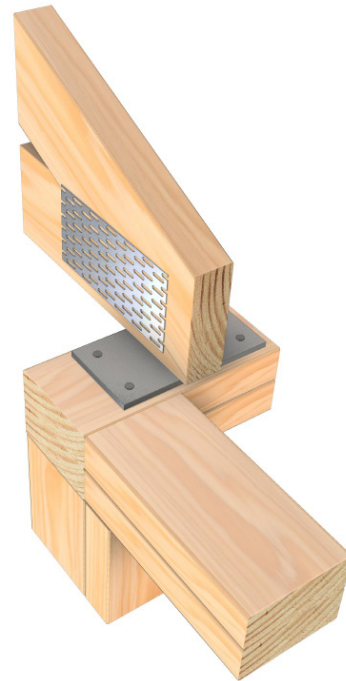
PRODUCT CODE	ACP
STEEL	G250
THICKNESS	6mm
CORROSION RESISTANCE	Hot Dipped Galvanised Steel
FASTENERS REQUIRED	6
QUANTITY	10

Pryda Anti-crush Plates are used to avoid crushing of the timber wall plate at supports of heavily loaded timber trusses. They do this by increasing the width of bearing and, therefore, the bearing capacity.



AS1720 COMPLIANT

- Design values tested in accordance with the relevant standard



DESIGN CAPACITIES

Design bearing (aka “crushing”) capacities for truss to wall plate joints are tabulated below for common truss thicknesses.

WALL WIDTH (MM)	TRUSS THICKNESS (MM)	BEARING CAPACITY (KN)				MINIMUM STUD THICKNESS REQUIRED²
		WITHOUT ANTI-CRUSH PLATE		WITH ANTI-CRUSH PLATE		
		LOAD CASE:				
		1.35G	1.2G + 1.5QR	1.35G	1.2G + 1.5QR	
HARDWOOD: SD4 STRENGTH GROUP, E.G.: ASH-TYPE EUCALYPTUS						
70	35	19.2	31.7	41.5	68.5	2/45
	45	24.6	40.6	47.9	79	2/45
	70	38.3	63.2	63.8	105.3	3/35
	90	49.2	81.2	76.6	126.4	4/35
90	35	25.5	42.1	47.1	77.7	2/45
	45	32.8	54.1	54.4	89.6	2/45
	70	51.1	84.3	72.4	119.6	3/35
	90	65.6	108.2	86.9	143.4	3/45
SOFTWOOD: SD6 STRENGTH GROUP, E.G.: ALL MGP AND MOST LVL TIMBERS						
70	35	11.5	19	24.9	41.1	2/45
	45	14.8	24.4	28.7	47.4	2/45
	70	23	38	38.3	63.2	3/35
	90	29.5	48.7	46	75.9	4/35
90	35	15.3	25.2	28.2	46.6	2/45
	45	19.7	32.5	32.6	53.7	2/45
	70	30.6	50.5	43.4	71.6	3/35
	90	39.4	65	52.1	86	3/45

NOTES:

1. The Anti-crush Plate increases the bearing capacities of the wall plate only. The bearing capacities of the truss are the “Without Anti-crush Plate” capacity values tabulated above.
2. Where the Anti-crush Plate is used, the wall studs directly supporting the truss must have a combined thickness of not less than the Minimum Stud Thickness tabulated, eg: for “2/35” use two 35 mm studs.
3. If the truss does not bear across the full wall frame width, reduce the capacity in proportion to the width of the bearing.
4. The top plate and end of the truss must have no large knots or other large strength-reducing characteristics in the bearing area or within 100 mm of the bearing area.

IMPORTANT:

READ THIS DATASHEET IN CONJUNCTION WITH PRYDA BRACKETS & FIXES DESIGN GUIDE AND REFER TO ESSENTIAL NOTES AND GENERAL NOTES.

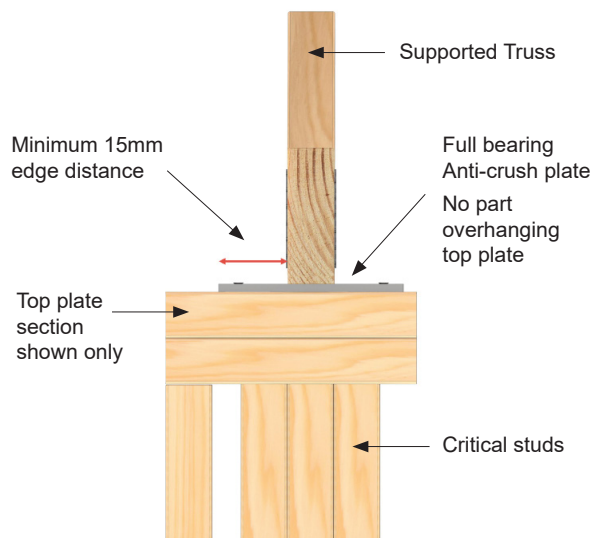
INSTALLATION

STEP 1



- Locate the Anti-crush Plate length along the top plate and fully supported on wall frame.
- Place the Anti-crush plate centrally to width of top plate and secure into position with 6 x 35x3.15mm Pryda Connector Nails or other similar size nails.
- Ideally the Anti-crush plate should also be located centrally to the supported truss whenever possible.

STEP 2



- Locate truss over Anti-crush plate and tie truss to frame as per the projects Engineers details.
- The truss must be located a minimum of 15mm from the end of the Anti-crush Plate and completely across the width of the wall frame.



LOOKING FOR MORE DETAILS OR OTHER BRACKETS & FIXES IN OUR RANGE?

SEE OUR BRACKETS & FIXES DESIGN GUIDE AVAILABLE AT [PRYDA.COM.AU](https://www.pryda.com.au)

PERGOLA ANGLES

FEATURES AND BENEFITS

EASY: Simple and effective design.

FAST: Fixed with Pryda Connector Nails 35x3.15mm and Pryda TCS12-65 screw.

VERSATILE: Can be installed on to existing framing with restricted access to edge of top plate for internal tie down. Installed on top making it less visible from side view.

SPECIFICATIONS

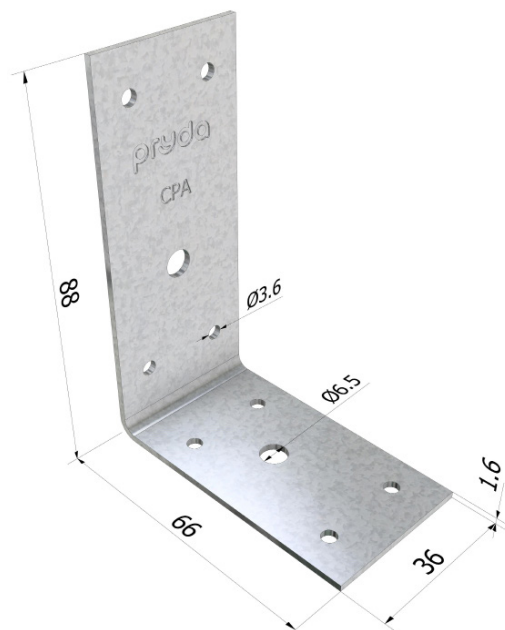
PRODUCT CODE	MPCPA
STEEL	G300
THICKNESS	1.6
CORROSION RESISTANCE	Z275
FASTENERS REQUIRED	8 x 35x3.15mm nails 1xTCS12-65 screw
QUANTITY	100

Heavy duty, multi-purpose building brackets.

AS1684 & AS1720 COMPLIANT



- Minimum Z275 galvanised steel
- G300 min. Steel grade
- Design values tested in accordance with the relevant standard



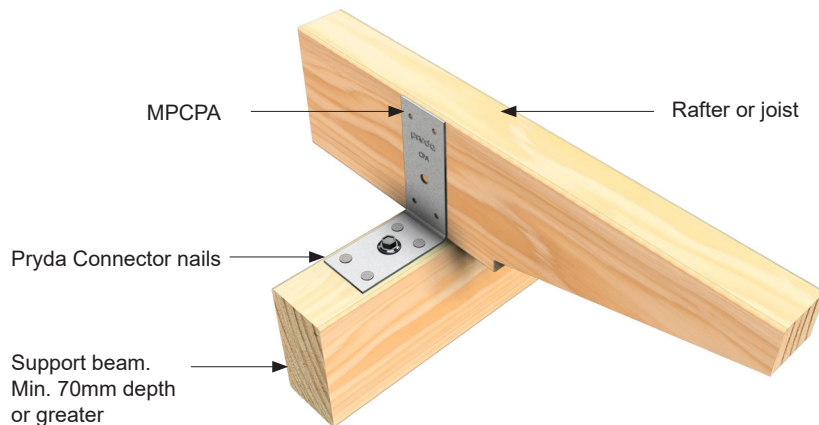
DESIGN CAPACITY

For indoor, dry use conditions and JD5 timber, design wind uplift capacity (ϕN_j) for a CPA Angle fixed with 4 nails on each member plus one Pryda TCS12-65 screw into supporting member of minimum 70mm deep is 3.2 kN.

To achieve greater capacity, use the MPCPAH hold-down bracket. Details are available in the connectors and Tie-down guide.

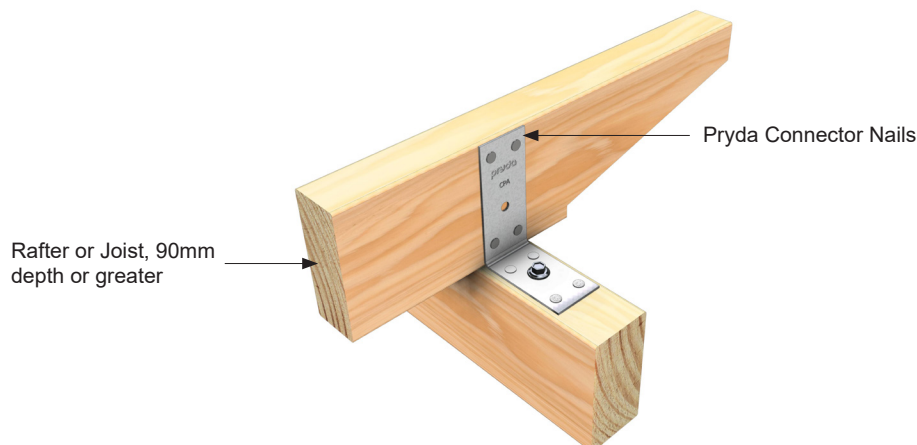
INSTALLATION

STEP 1



- Locate the MPCPA firmly against rafter or joist and directly bearing on the support beam.
- Suggested support beam minimum depth 70mm.
- Fasten MPCPA to support beam with 4 x 35x3.15 Pryda connector nails using the smaller holes and one TCS12-65 screw to larger hole at centre.
- The MPCPA should be positioned centrally on supporting beam width.

STEP 2



- Position rafter or joist firmly against the CPA bracket and directly bearing on support beam.
- Fix the CPA bracket to the rafter or joist with 4x 35x3.15 Pryda Connector nails.
- The selected rafter or joist overall depth should be 90mm or greater.

UNIVERSAL HEAVY-DUTY ANGLE

FEATURES AND BENEFITS

EASY: Simple and effective design.

FAST: Fixed with 6 Pryda Hex Head screws.

VERSATILE: A wide range of applications and can be used vertically or horizontally. Also available in stainless.

SPECIFICATIONS

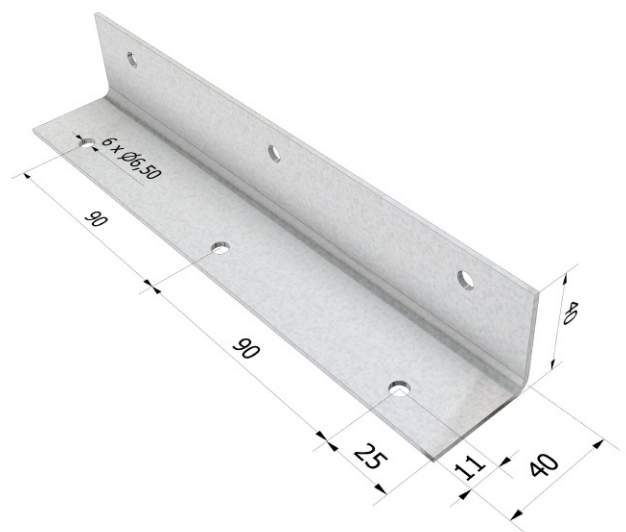
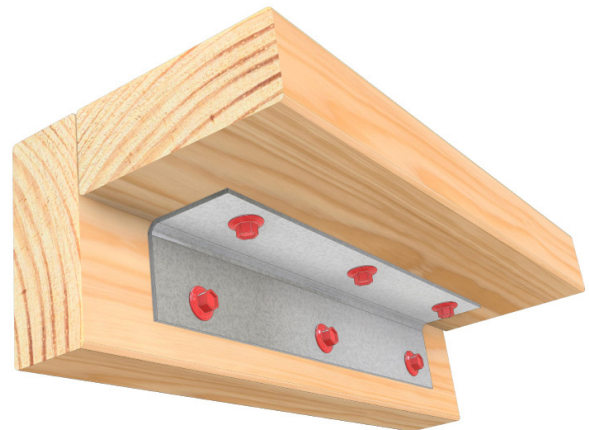
PRODUCT CODE	MPUHDA
STEEL	G300
THICKNESS	2.0mm
CORROSION RESISTANCE	Z275
FASTENERS REQUIRED	6 x TCS12-35 or 6 x TCS12-65
QUANTITY	Pack of 20 individually bar-coded.

A heavy-duty angle for a wide range of applications.



AS1684 COMPLIANT

- Minimum Z275 galvanised steel
- Grade 300 Steel

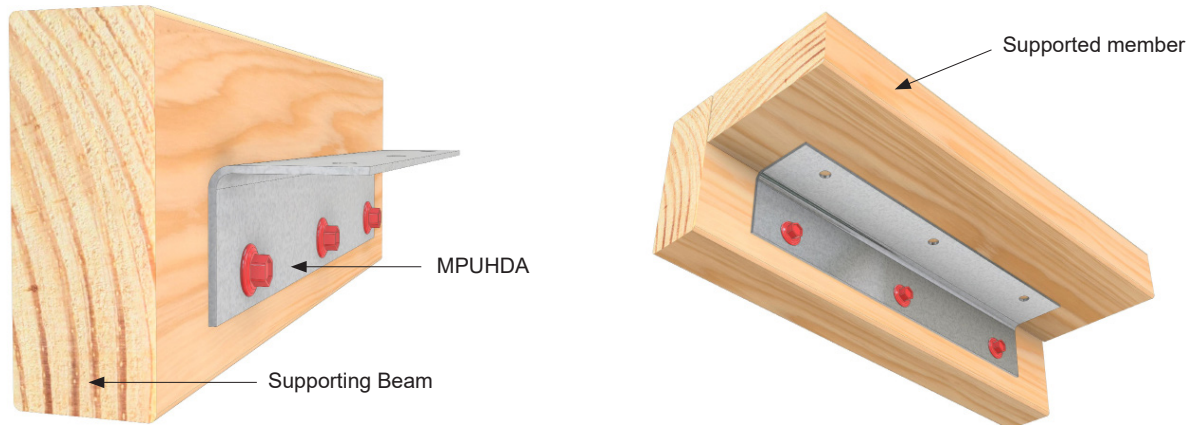


APPLICATION

MPUHDA angle can be used in a wide range of applications. It is suitable for use as either left or right hand and either vertical or horizontal. Suggested uses include stair or shelf brackets, as well as an internal or external corner support.

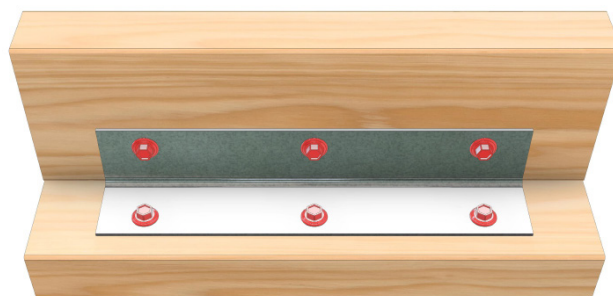
INSTALLATION

STEP 1



- Locate the MPUHDA firmly against support beam at required level.
- Ensure adequate fastener end and edge distance are satisfied to the pre-drilled holes to suit application and selected timber. Seek advice from project designer if in doubt.
- Pre-drill holes if required using MPUHDA as stencil for timber prone to splitting.
- Fasten MPUHDA to support beam with 3 x TCS12-35 or TCS12-65 screws, holding angle at set position.
- Locate supported member over MPUHDA, ensuring the supported member is hard against supporting beam and directly bearing on MPUHDA.

STEP 2



- Fasten MPUHDA to supported member with 3 x TCS12-35 or TCS12-65 screws.
- Selected screws must not penetrate past supported or supporting member.

IMPORTANT:

READ THIS DATASHEET IN CONJUNCTION WITH PRYDA BRACKETS & FIXES DESIGN GUIDE AND REFER TO ESSENTIAL NOTES AND GENERAL NOTES.

FOIL FIX

FEATURES AND BENEFITS

EASY: Simple and effective design.

FAST: Fixed with pre-punched nails. No additional fasteners required. Foil Fix is supplied in easy span-off sticks of 10 for fast, convenient, and safe use on-site.

VERSATILE: A simple and economical method of fixing building foil insulation to timber framing, roof insulation to trusses or rafters. It holds the insulation foil securely and prevents tearing.

SPECIFICATIONS

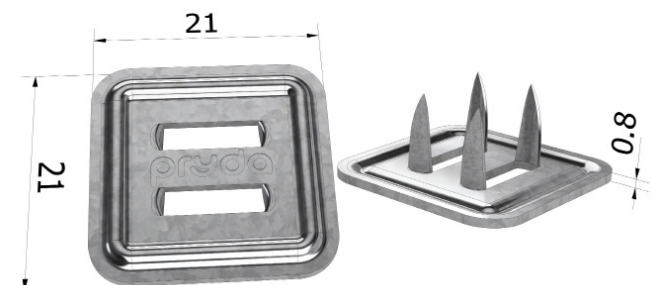
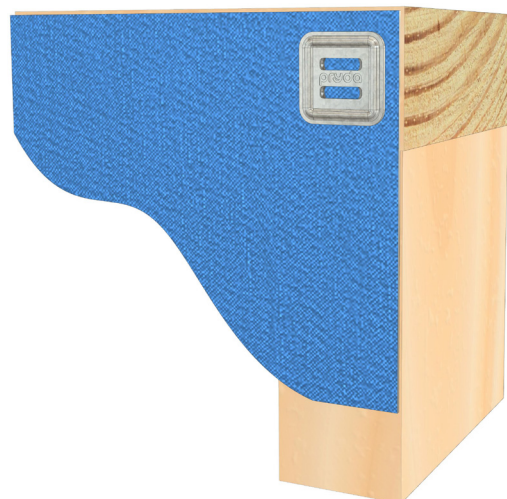
PRODUCT CODE	SFF
STEEL	G300
THICKNESS	0.8mm
CORROSION RESISTANCE	Z275
FASTENERS REQUIRED	NIL Pre-punched nails
QUANTITY	50 strips of 10 i.e.500

A non-tear economical fixing for sheet insulation.



AS1684 COMPLIANT

- Minimum Z275 galvanised steel
- G300 Min. Steel Grade



DESIGN LOADS

Adaptability: Foil fix can be used to fix foil insulation to both wall and roof frames.

Withdrawal Strength: In timbers of joint group JD4 (e.g.: dry radiata pine) or better, Foil Fix's withdrawal resistance is greater than that of the foil. This is due to the twisted nail profile which allows ready penetration into and excellent holding power in all timbers, from the softest to the hardest.

Tear Resistant Design: The special design of Foil Fix includes rounded and coined edges and a wide size (21mm) which greatly reduces the tendency of the foil to tear in windy conditions.

Note: for all timbers with joint group JD4 or better, the holding power of Foil Fix exceeds the strength of the foil.

DESIGN LOADS & TEST RESULTS - LIGHTWEIGHT FOILS		
TEST TYPE	TEST RESULTS	DES. CAP.
Foil tested in pull-out	Tending to tear around perimeter of Foil Fix	0.09 kN
Foil in tension	Tending to pull through between Foil Fix and timber.	0.14 kN
Foil Fix in pull-out (Withdrawal) from timber of Joint Groups JD4, J3, JD2	No significant difference between results for different joint groups	0.17 kN

INSTALLATION

STEPS



- Position foil and align foil corners with timber frame.
- Place Foil fix at corner leaving a 10mm edge distance to both edges.
- Firmly press Foil fix against frame, temporarily securing the foil and partially embedding the Foil fix into timber.
- Carefully hammer in the Foil fix evenly with moderate force until all pre-punched claw-nails are fully embedded and Foil fix is sitting flat against foil and frame.

IMPORTANT:

READ THIS DATASHEET IN CONJUNCTION WITH PRYDA BRACKETS & FIXES DESIGN GUIDE AND REFER TO ESSENTIAL NOTES AND GENERAL NOTES.

PRYDA FIX

FEATURES AND BENEFITS

EASY: Simple and effective design.

FAST: Fixed with pre-punched nails. No additional fasteners required.

VERSATILE: A simple and economical method of fixing building foil insulation to timber framing, roof insulation to trusses or rafters, enables quick and efficient installation of netting on privacy screens, and shade clothes to timber framing. It holds the insulation foil securely and prevents tearing.

SPECIFICATIONS

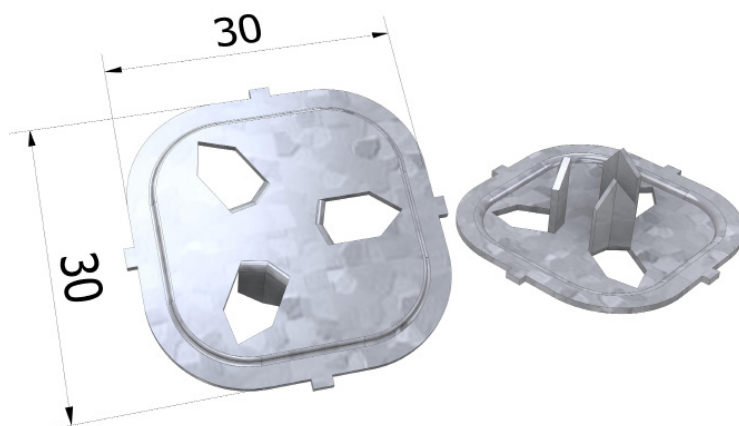
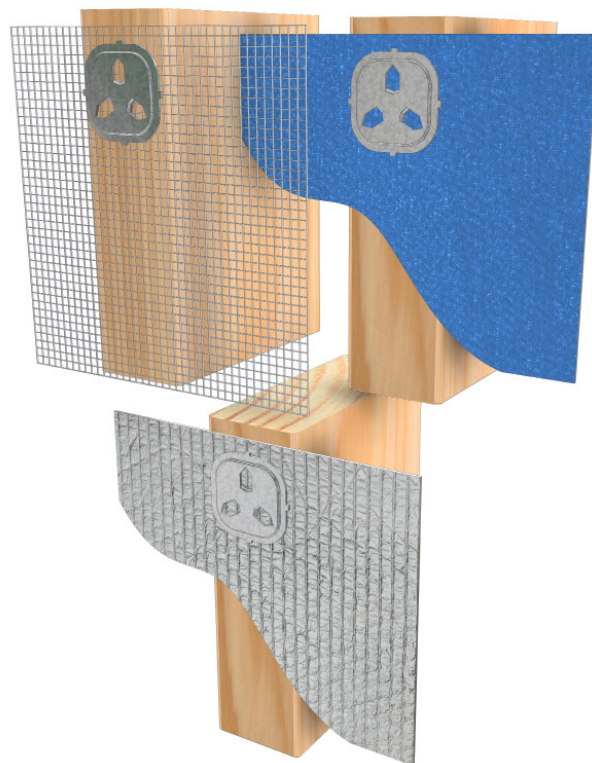
PRODUCT CODE	SFI
STEEL	G300
THICKNESS	0.8mm
CORROSION RESISTANCE	Z275
FASTENERS REQUIRED	NIL Pre-punched nails
QUANTITY	150 x 5 =750 per carton

A non-tear economical fixing for foil insulation and shade cloth.



AS1684 COMPLIANT

- Minimum Z275 galvanised steel
- G300 Min. Steel Grade



APPLICATIONS

WALL INSULATION

Pryda Fix is a simple and economical method of fixing building foil insulation to timber framing. It holds the insulation foil securely and prevents tearing. Recommended fixing spacing is 600 mm.

ROOF INSULATION

Pryda Fix may be used for fixing insulation foil in roof construction. Again, it holds the insulation foil securely and prevents tearing due to the rounded corners of the product. Recommended fixing spacing is 600 mm.

PRIVACY SCREENS

Pryda Fix enables quick and efficient installation of netting on privacy screens. Recommended fixing spacing is 400 mm.

SHADE CLOTH

Pryda Fix also facilitates fixing of shade cloth onto timber pergolas or other framework, eliminating the need for battens to hold the shade cloth in position. Recommended fixing spacing is 400 mm.

HOT HOUSE COVERING

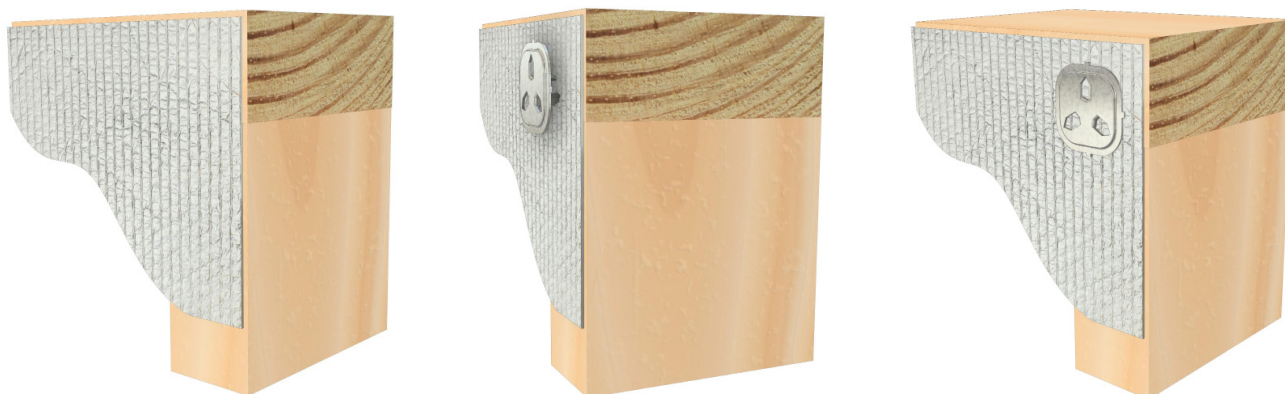
Pryda Fix is also suited to fixing sheet p.v.c. onto hot houses for both domestic and commercial use. Again Pryda Fix prevents tearing of the sheeting.

DESIGN LOADS

LOADING	TIMBER	LIMIT STATE DESIGN CAPACITY ϕN_J
Pryda Fix pull-out	Radiata pine Hardwood	0.085 kN 0.17 kN
Shade cloth tearing (Shear)	Radiata pine or hardwood	0.26 kN

INSTALLATION

STEPS



- Position foil and align foil corners with timber frame.
- Place Pryda fix at corner leaving a 10mm edge distance to both edges.
- Firmly press Pryda fix against frame or lightly hammer in, temporarily securing the foil and partially embedding the Pryda fix into timber.
- Carefully hammer in the Pryda fix evenly with moderate force until all pre-punched claw-nails are fully embedded and Pryda fix is sitting flat against foil and frame.

FRAME FIX

FEATURES AND BENEFITS

STRONG: Stiffens the top plate for areas in the region of the penetrations

EASY: Quick installation to top plate by using Pryda self-drilling screws

VERSATILE: Suitable for both single & double top plates (35mm or 45mm). Can be installed before or after service pipe penetration

SPECIFICATIONS

STEEL	G200
THICKNESS	1.55mm
CORROSION RESISTANCE	Z275
DIMENSIONS	240 x 34 x 31mm Hole Diameter 60mm max

FASTENERS REQUIRED

SINGLE TOP PLATE	Pryda 12Gx35mm Timber Connector Screw
DOUBLE TOP PLATES	Pryda 12Gx35mm Timber Connector Screw

Reinforces a top plate containing penetrations for services or ventilation pipes.



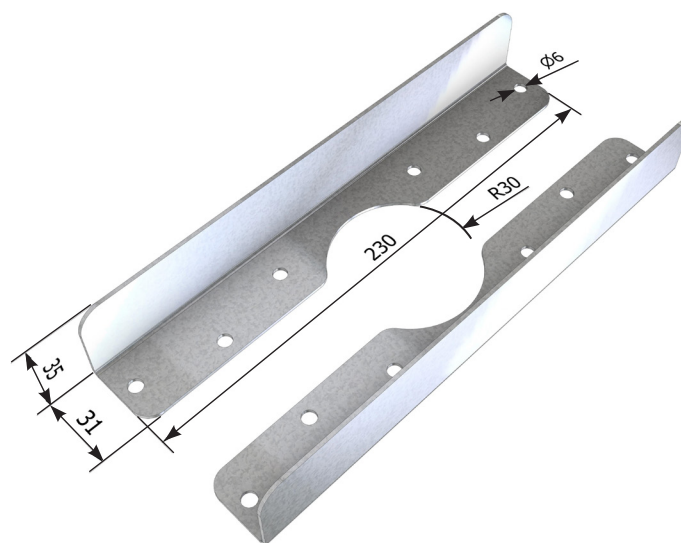
AS1684 & AS1720 COMPLIANT

- Minimum Z275 Galvanised Steel
- Design values tested in accordance with AS1649



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RANGE

PRODUCT CODE	MATERIAL	SIZE	MINIMUM TIMBER GRADE	SUITABILITY	QUANTITY
PFF2	G200 Z275 Galvanised Steel	240mm x 34mm x 31mm	MPG10	Top Plate	10

*Suitable for single or double 90x35mm and 90x45mm MPG10 top plates only.

SCOPE OF USE

Pryda Frame Fix is suitable for Residential light timber frame dwellings designed in accordance with AS1684.

The Frame Fix must be used in accordance with the installation procedures outlined in this document to provide structural support to 90x35 and 90x45 MPG10 single or double top plates for a centrally located hole of max 60mm diameter

The Frame Fix is suitable for use on 90mm wide frames ONLY.

Only 1 Frame Fix is to be installed between a set of studs – multiple penetrations are not permitted.

Any further penetrations should skip at least 1 bay of studs from the existing location.

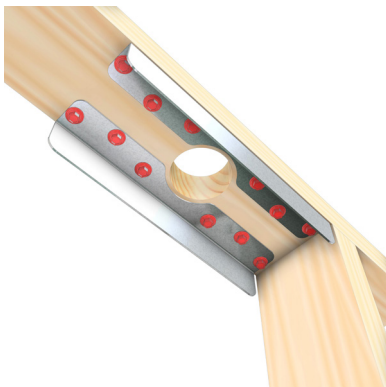
If the Frame Fix is installed in accordance with this document, then the top plates in the section that the Frame Fix is installed, can be considered structurally adequate if the top plates were originally designed in accordance with AS1720.3 or AS1684 span tables.

The Frame Fix must not be modified in any way, shape or form under any circumstances or conditions.

Note: There should be no large point loads (e.g., from girder trusses, floor beams, etc) in the top plate sections containing the Frame Fix, or penetrations in general - typically large point loaded elements should be supported directly by studs. The Frame Fix is to be installed on continuous top plates and not over or adjacent to any splice joint.

INSTALLATION

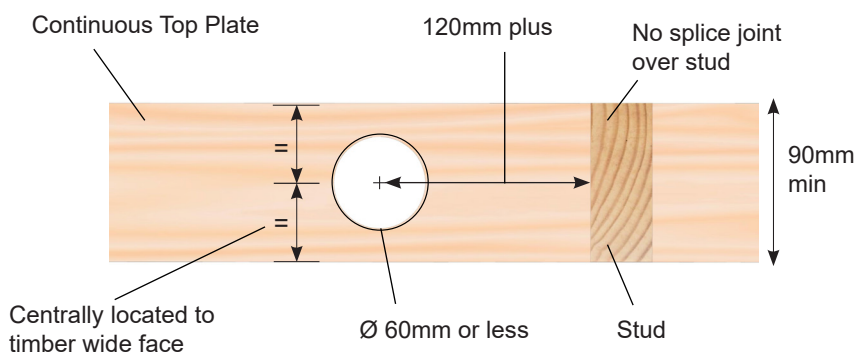
Fixing to underside of top plate where centre of hole is at least 120mm from the nearest stud.



STEP 1

Measure and mark the location on the top plate to be reinforced, ensuring the centre of the hole is no closer than 120mm from the face of the stud. Holes within 120mm of the stud can be reinforced by installing Frame Fix on the top face (see following section). Hole size should be no greater than 60mm diameter and must be centrally located within the 90mm plate width. The Frame Fix can be installed before or after the hole is drilled.

Important Note: Ensure there are no timber defects (i.e., knots, wane, want, resin pockets) within 100mm of the Frame Fix or hole location.



STEP 2

Drill a hole through the timber to the required diameter at the marked location.



STEP 3

Place the Frame Fix centrally over the hole. The vertical flange should be flush with the edge of the frame. Fix into place using 12 x Pryda 12Gx35mm red hex head screws. The Frame Fix must always be installed in pairs.

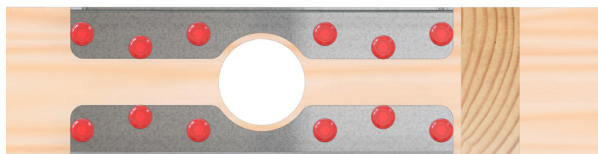
For double top plates, insert an additional 2 x No.14 Hex Head screw, 70mm from the edge of the hole on both sides. Use 14gx65mm screws for double 35mm top plates, or 14gx90mm screws for double 45mm top plates.

Note: the additional screw can be omitted if there is already a wall plate tie-down screw installed on that side of the hole.

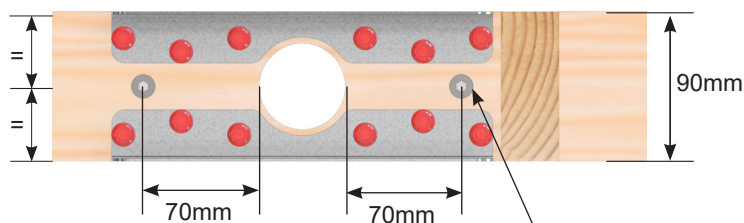
Double top plates are assumed to be laminated in accordance with AS1684 or to the Project Engineer's requirements; do not rely on the Frame Fix for this purpose. Top plate(s) are designed in accordance with AS1720.3 or AS1684 span tables.

SINGLE TOP PLATE INSTALL

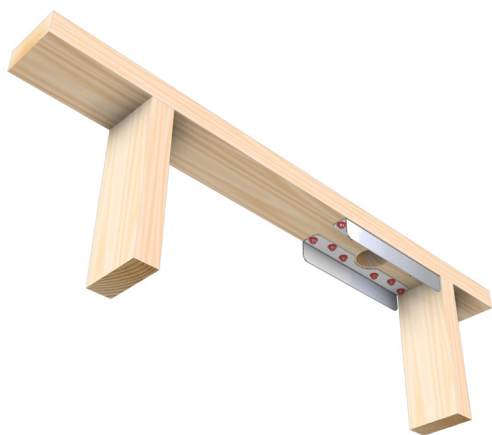
Pryda 12Gx35mm red hex head screws

**DOUBLE TOP PLATES INSTALL**

Pryda 12Gx35mm red hex head screws plus
2x No.14-gauge screws to suit double plates depth



No.14 screw to suit double top plates overall depth. One on each side of hole is required. Unless an existing top plate to stud tie-down screw is in place. If so, one No.14 screw is required.



INSTALLATION

Fixing to top side of top plate where service hole edge is no closer than 45mm from the stud.

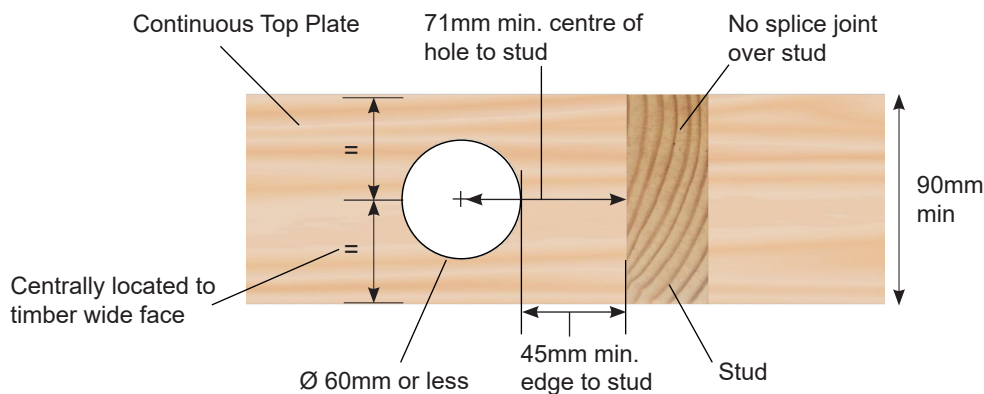


*Single top plate option shown with 2 orientations.

STEP 1

Measure and mark the location on the top plate to be reinforced, ensuring the centre of the hole is no closer than 120mm from the face of the stud. Holes within 120mm of the stud can be reinforced by installing the Frame Fix on the top face (see following section). Hole size should be no greater than 60mm diameter and must be centrally located within the 90mm plate width. The Frame Fix can be installed before or after the hole is drilled.

Important Note: Ensure there are no timber defects (i.e., knots, wane, want, resin pockets) within 100mm of the Frame Fix or hole location.



STEP 2

Drill a hole through the timber to the required diameter at the marked location.



STEP 3

Place the Frame Fix centrally over the hole. The vertical flange should be flush with the edge of the frame. Fix into place using 12 x Pryda 12Gx35mm red hex head screws. The Frame Fix must always be installed in pairs.

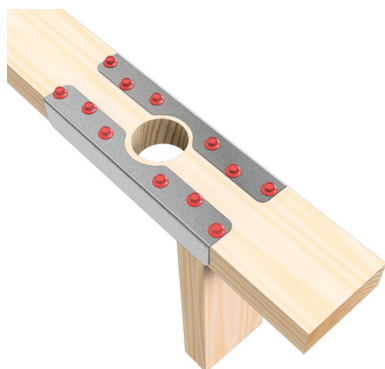
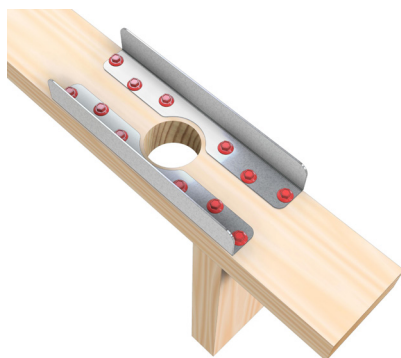
For double top plates, insert an additional 2 x No.14 Hex Head screw, 70mm from the edge of the hole on both sides. Use 14gx65mm screws for double 35mm top plates, or 14gx90mm screws for double 45mm top plates.

Note: the additional screw can be omitted if there is already a wall plate tie-down screw installed on that side of the hole.

Double top plates are assumed to be laminated in accordance with AS1684 or to the Project Engineer's requirements; do not rely on The Frame Fix for this purpose. Top plate(s) are designed in accordance with AS1720.3 or AS1684 span tables.

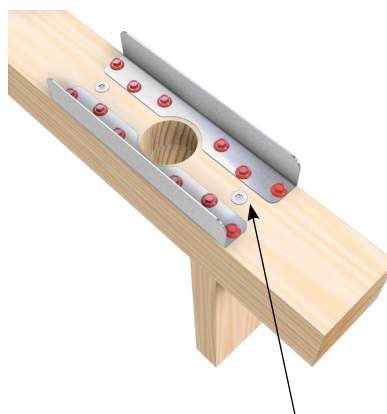
SINGLE TOP PLATE INSTALL

Pryda 12Gx35mm red hex head screws

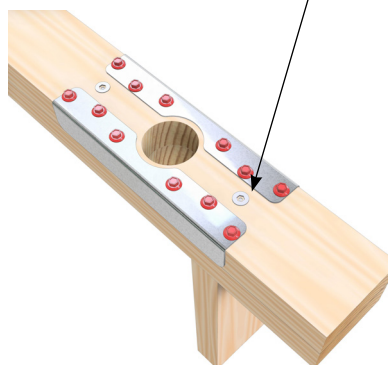


DOUBLE TOP PLATES INSTALL

Pryda 12Gx35mm red hex head screws plus
2x No.14-gauge screws to suit double plates depth



No.14 screw to suit double top plates overall depth. One on each side of hole is required. Unless an existing top plate to stud tie-down screw is in place. If so, one No.14 screw is required.



The overlapping plate edge may interfere with wall cladding. Notching the top plate for a flush finish is NOT RECOMMENDED. It is the builder's responsibility to adopt an appropriate installation orientation to best suit the requirements of the build. Top plate must be continuous and no splice joint over stud.

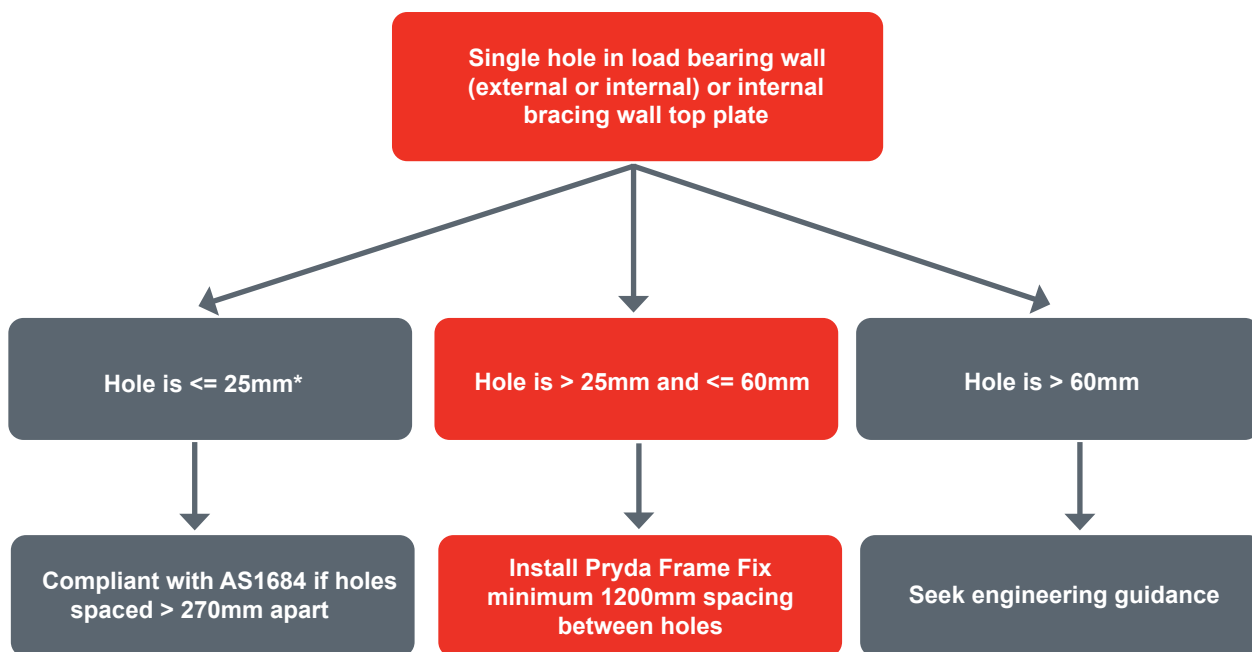
DURABILITY

Prior to use, the Frame Fix is to be stored in a weatherproof environment and protected from moisture.

The Frame Fix is to be installed internally in areas within the building envelope that are kept permanently dry.

PRYDA FRAME FIX DECISION TREE

90x35mm, 90x45mm, single or double MGP10 top plates



Notes:

1. This flowchart ONLY applies to single holes that are drilled centrally across the wide face in 90mm top plates and are not in the proximity of any timber defects (such as knots, other holes, resin pocket or excessive wane or want).
2. Internal non-load bearing walls can follow the same flowchart except where marked with an * in which case the hole size can be up to 50mm spaced at 1800mm centres and will comply with AS1684.

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For more information call 1300 657 052 (Australia), 0800 88 22 44 (New Zealand) or email info@pryda.com.au