pryda



# NZ HOLD DOWN BRACKET

Tie down resistance for a variety of applications and with a variety of fasteners.

#### **FEATURES AND BENEFITS**

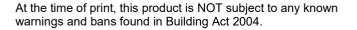
SIMPLE: Can be fixed with nails, screws, and bolts

FAST: Can be used for a variety of applications, such as a tie down for trusses, wall frames and narrow wall bracing units.

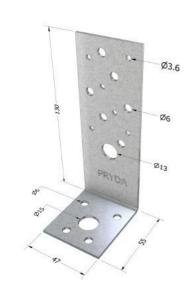
DURABLE: Made from 2.0mm G300 Z275 Galvanised Steel.



PRODUCT CODE	MPCPAH
STEEL	G300
QUANTITY	75
THICKNESS	2.0mm
CORROSION RESISTANCE	Z275
TIMBER FASTENERS	Pryda 35 x 3.15mm Timber Connector Nails
	OR
	Pryda 12G x 35mm Timber Connector Screws - painted red head
ANCHORING FASTENER	M12 Tie-down rod or M12 x 150mm Anka Screw
	AND
	40 x 40 x 5mm square washer
SIZE	47 x 55 x 130mm







\*All dimensions shown 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 Hold Down Bracket 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
	All subfloor fastenings more than 600mm above the ground	Vented 7000mm²/m² or less	Sheltered	Pryda Stainless Steel 304 Products (3)
		Vented MORE than 7000mm²/m²	Exposed	Pryda Stainless Steel 304 Products (3)
Zones B and C	Within follows of the		nd Exposed	Pryda Stainless Steel 304 Products (3)
	All other structural fixings	Sheltered		Pryda Stainless Steel 304 Products (3)
		Exposed		Pryda Stainless Steel 304 Products (3)
Zone D	All structural fixings	Sheltered and Exposed		Pryda Stainless Steel 304 Products (3)

#### Notes:

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

# STORAGE AND HANDLING

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

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

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

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

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.



# **DESIGN CAPACITIES**

The design capacities for an MPCPAH bracket are tabulated below for use with both 35 x 3.15mm Pryda Timber Connector nails and Pryda painted hex head screws 12G x 35mm and fixed with an appropriate tie-down anchor. These capacities are also suitable when MPCPAH is used as a tie-down bracket for wall studs.

#### **UPLIFT CAPACITIES FOR A SINGLE BRACKET**

6/35 x 3.15mm Pryda Timber Connector nails on supported truss or stud.



JOINT GROUP OF TRUSS CHORD	UPLIFT CAPACITY (KN) (USING 6 NAILS INTO TRUSS/STUD)
J5	4.7

6/12G x 35mm Pryda Timber Connector screws - painted red head on supported truss or stud.



JOINT GROUP OF TRUSS CHORD	UPLIFT CAPACITY (KN) (USING 6 SCREWS INTO TRUSS/STUD)
J5	10.9

#### Notes:

- 1. Design capacities applies for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets J5 timber in accordance with NZS3604.
- 2. For a pair of MPCPAH brackets, double up the tabulated capacities.
- 3. Limit State Design capacities are shown in the tables for Wind Uplift condition.
- 4. The above values (for nails or screws) are only applicable: a) if the anchorage into the supporting member has an equivalent or better capacity, b) All screws are set 25mm in from timber edge, c) All nails are set 15mm in from timber edge.

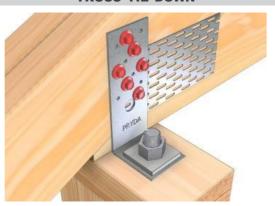


## **APPLICATION AND SCOPE OF USE**

Pryda Hold Down Bracket 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).

## APPLICATION EXAMPLES

#### TRUSS TIE DOWN



- Use an M12 tie-down rod with 40x40x5.0 washer anchored into concrete using a suitable epoxy set chemical anchor.
- Alternatively, to resist low uplifts, each bracket may be anchored using 4/ Pryda 12G x 35mm Timber Connector Screws – painted red head, into single wall plate giving capacities of 3.5 kN (J5).





Additional connectors will be required to transfer tie- down forces from wall plate to foundation.

# STUD TIE DOWN



- When anchored directly to concrete slab/foundation Pryda recommends using M12 Ramset<sup>TM</sup>
   Ankascrew<sup>TM</sup>. However, the designer should ensure the design capacity of the slab tie down connection meets or exceeds the capacity of the connector otherwise the lower of the design values between the connector and the tie down should be adopted.
- Typically, an M12 x 150 Ramset Ankascrew (with a min. 40 x 40 x 5mm washer) would give an anchorage capacity of 14.0 kN in Grade 20 concrete used in an external 90mm wall frame having 35mm bottom plates.
- Using Ankascrews on internal walls can be subject to the depth of the slab – e.g., for 85-100 mm waffle pods 150mm anchors will be too long for the slab thickness and may limit the capacity of the connector.



Contact details	
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