PRODUCT DATA SHEET

HALF STIRRUP POST ANCHOR WITH SOLID STEM

FEATURES AND BENEFITS

ECONOMICAL: Light weight design with cranked solid stem to better resist uplift.

EASY: Simply embed stem into wet concrete with full U stirrup post support using 2 x M10 bolts.

STRONG: Hot dip galvanised coating after manufacture and made from 4mm steel. Full CFW solid stem to saddle.

SPECIFICATIONS

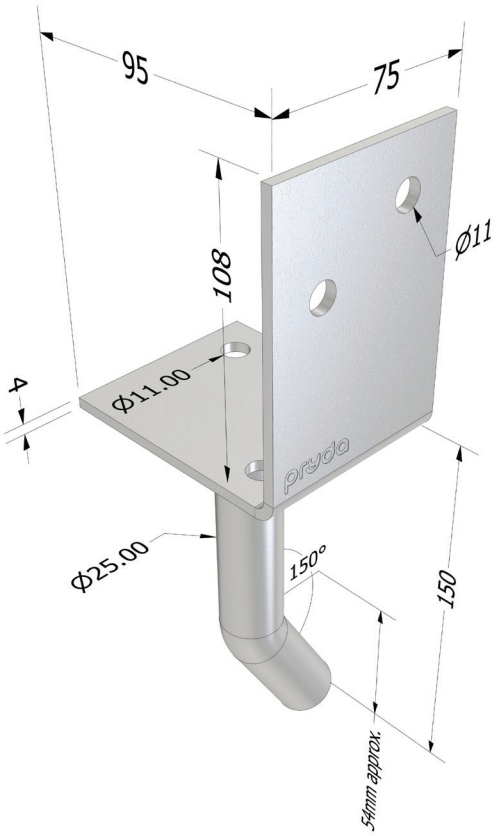
STEEL	G250
STIRRUP THICKNESS	4mm
CORROSION RESISTANCE	HDG500 Hot dip galvanised (500 g/m^2)
STEM SIZES	150mm
POST SIZES	90mm

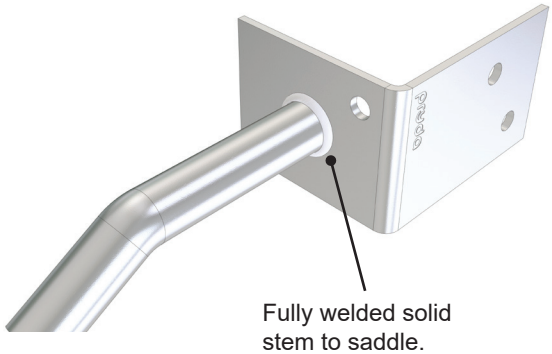
FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 4.6 grade galvanised Hex Head Bolts M10 x 50mm 4.6 grade galvanised coach screws
POST BASE TO CONCRETE	Nil - Set into wet concrete

AS1684, AS1720 & AS4055 COMPLIANT

- Designed in accordance with Pryda testing and relevant Australian standards
- Engineering computations in accordance with the relevant Australian standards





Fully welded solid stem to saddle.

RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QTY
PSHW150/6	G250 Steel, Hot Dip Galvanised (500 g/m^2)	150	90	M10	6

DURABILITY

Pryda Post Anchors are hot dipped galvanised to standard AS/NZS4680.
Routine inspection and clearing any debris around anchor are an integral part of ongoing care and maintenance.

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 performance.

APPLICATION AND SCOPE OF USE

Typical application for all Pryda Post Anchors is for attached open verandah or similar structures for dwellings.
All other usage must be verified/designed by consulting structural Engineer.

DESIGN CAPACITIES

Limit State Design capacities (ΦNj) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

FIXINGS	POST (mm)	UPLIFT CAPACITIES FOR VARYING JOINT GROUPS		
		JD5	JD4	JD3
2 x M10 bolts	90	5.3(4)	5.3(4)	5.3(4)
4 x M10 x 50mm coach screws		5.3(4)	5.3(4)	5.3(4)

Notes:

1. The design loads tabulated above require that:
   (a) The timber post must bear on the Post Anchor base and (b) All posts must be a minimum of 90 x 90mm section UNO. (c) All anchors must be installed plumb. (d) For all bolt down anchors, support foundation must be flat, level, and supporting base plate fully.
2. Select design capacity according to the standard used for determining the design loads.
3. Specified capacities are for concentric vertical load transfer only. Refer to each Post Anchor notes for recommended capacities for eccentrically loaded conditions with selected Post Anchors only.
4. **The base concrete and fixings to the concrete must provide sufficient resistance to the uplift forces and dead + live loads. Uplift loads stated in this document are stated for steel and timber post ONLY, these capacities may be limited by anchoring methods to the supporting foundation, i.e. fastener type, wet concrete embedment depth and concrete design. This should be verified by the project Engineer or designer prior to installation.**
5. Wind uplift capacities are based on the AS/NZS1170.2 wind code.
6. Post Anchors should NOT be assumed to contribute towards lateral bracing/raking stability of a structure in decks or stumps in sub-structure, unless pre-approved by a structural Engineer.
7. Post Anchors are not intended to be used for cantilever posts, balustrades and, free standing structures, carports and gazebo, unless designed and approved by a consulting structural Engineer.
8. Post must be laterally restrained at top, installed centrally to anchor, and deemed to be “fit for purpose” by the project Engineer.
9. It is recommended to slope the foundation away from the anchor to prevent water pooling at the base.
10. Do not cover exposed base plate and stem with debris or obstacles that will facilitate collection of debris around anchor base.
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12. Maximum post height 3m and ultimate limit state wind speed not exceeding 50m/s unless noted otherwise.
13. Local settlement, ground water and soil reactivity will cause isolated concrete footings to ‘TILT’ and therefore induce bending into the post stirrup stem. Isolated footing should be restricted to stable soil, i.e. Class A and S foundation classification to AS2870.

IMPORTANT:

READ THIS DATASHEET IN CONJUNCTION WITH PRYDA POST ANCHORS GUIDE AND REFER TO GENERAL NOTES AND LIMITATIONS.

INSTALLATION

It is essential that the concrete design with selected solid stem length embedment exceeds the expected uplift load. Anchor to foundation design to be determined by consulting project Engineer to suit design application, foundation type, and deemed fit for purpose. The design Engineer should ensure the structural elements can support the intended design loads.

STEP 1

- Pour concrete as per concrete design by consulting project Engineer's details.
- Mark centre location of post position.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally.
- Seek advise from your consulting project Engineer.

STEP 2

- While concrete is wet, orientate selected anchor as required over mark and firmly insert solid stem into concrete.
- Embed selected anchor to required depth design by consulting project Engineer.
- Vibrate concrete ad required to ensure air pockets around stem are absent and concrete compacts to required density.

STEP 3

- Ensure anchor is vertically plumb.
- Leave anchor until recommended concrete curing time has lapsed.

STEP 4

- Place timber post centrally into Post Anchor stirrup for direct bearing on stirrup base.
- Ensure both Post Anchor and post are vertically plumb.

STEP 5

- Drill through post using saddle holes. Ensure drill through holes are horizontally level and perpendicular to saddle.
- For coach screws, drill pilot holes to the length of selected screws.

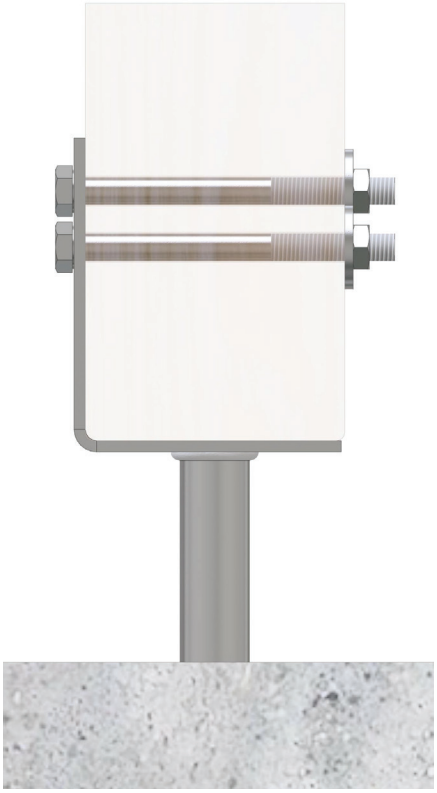
STEP 6

- Insert bolt through saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.

INSTALLATION TIP

FOUNDATION SLOPE

- It is recommended to slope foundations away from the base of the Post Anchor all around.
- Avoid water pooling and buildup of debris around anchor base.
- Not suitable for foundation that is at the same level as natural ground unless deemed fit for purpose and approved by consulting design Engineer.
- Routinely clear away debris or any obstructions at anchor base on a regular basis.
- Tiling or paving around anchor is not recommended as this may result in a recess space around the anchor that may facilitate water pooling and debris buildup.

BOLT LENGTH

- When using Hex Head Bolts for fastening your post, it is recommended to use a length 20mm longer than the post side or have a minimum of 2 x thread pitch extend beyond the outward surface of the hex nut.
- Account for the thickness of the saddle, washer(s) and allow sufficient thread of the bolt to pass the hex nut.
- For example, a 110mm Hex Head Bolt would suit a 90mm Post Anchor as shown for Half-Stirrup, Full-Stirrup and Centre-Fix.