

HALF STIRRUP POST ANCHOR (PSHS)

FEATURES AND BENEFITS

EASY: Simplifies installing posts that are located against walls with minimal access to one side

VERSATILE: Can be either fixed to existing concrete or set into wet concrete

STRONG: Hot dip galvanised coating after manufacture and made from 4mm steel

SPECIFICATIONS

STEEL	G250
STIRRUP THICKNESS	4mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m ²)
STEM SIZES	65, 130, 200, 300
POST SIZES	90

FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 or M12 4.6 grade galvanised hex head bolts
POST BASE TO CONCRETE	M10 or M12 galvanised Ramset Ankascrew

Ideally suited to uses where the post is located against a wall or step and can only be bolted from one side.

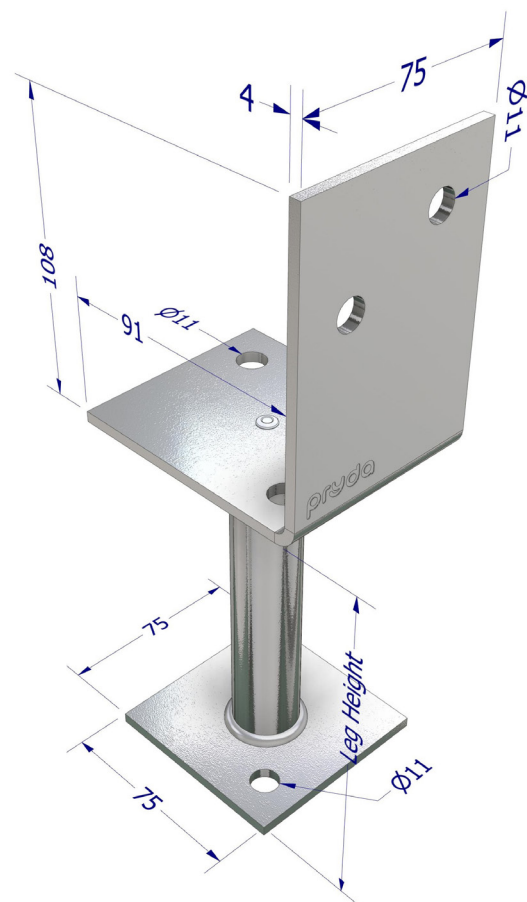
Can be bolted to existing concrete or set into concrete. Recommend maximum post size 90mm. Timber post to be installed central to the post anchor. It is the responsibility of the Project Engineer / Architect / Building practitioner / Trade person and end user to ensure the product is verified to be "Fit for purpose" for each project.

Post anchors must be installed plumb and on flat level ground. Maximum post height 3m, N3 Wind category.



AS1684, AS1720 & AS4055 COMPLIANT

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



RANGE

PRODUCT CODE	MATERIAL	STEM SIZE (MM)	POST SIZE (MM)	BOLT HOLE SIZE	QUANTITY
PSHS65	G250 Steel, Hot Dip Galvanised (500 g/m ²)	65	90	M10	10
PSHS65/12				M12	
PSHS130		130		M10	
PSHS130/12				M12	
PSHS200		200		M10	
PSHS200/12				M12	
PSHS300		300		M10	
PSHS300/12				M12	

DESIGN CAPACITIES

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

FULL STIRRUP POST ANCHOR		UPLIFT CAPACITIES FOR VARYING JOINT GROUPS						
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
2 X M10 or M12 bolts	90	5.3	5.3	5.3	5.3	5.3	5.3	5.3
2 x M10 or M12 x 50mm coach screws		5.3	5.3	5.3	5.3	5.3	5.3	5.3

NOTES:

- Design dead and live loads are likely to be limited by the capacity of the post, but should not exceed 16kN at the maximum stem height of 130mm and 24kN for 75mm stem height. For all other heights, design is to be by the consulting Project Engineer. As a guide, limit the axial compression load approximately 50% design capacity for all eccentrically loaded conditions.
- The design loads tabulated above require that:
 - the timber post must bear on the Post Anchor base and
 - all posts must be a minimum of 90 x 90 mm section.
- Select design capacity according to the standard used for determining the design loads.
- Specified capacities are for concentric vertical load transfer only.
- The base concrete and fixings to the concrete must provide sufficient resistance to the uplift forces and dead + live loads when embedding into concrete.
- Wind uplift capacities are based on the AS/NZS 1170.2 wind code and AS4055:2012.
- 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 an Engineer.
- Post must be laterally restrained at top.
- Post Anchors are not intended to be used for cantilever posts and balustrades without pre-approval from an Engineer.

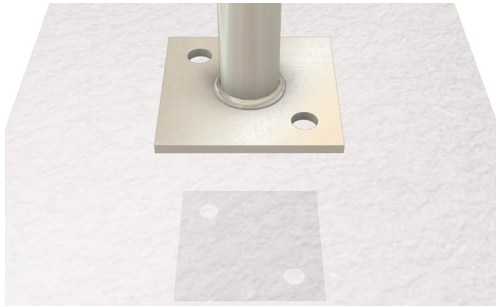
IMPORTANT:

READ THIS DATASHEET IN CONJUNCTION WITH PRYDA POST ANCHORS GUIDE AND REFER TO GENERAL NOTES AND LIMITATIONS FOUND ON PAGES 4 TO 7.

INSTALLATION - FIXING TO DRY CONCRETE

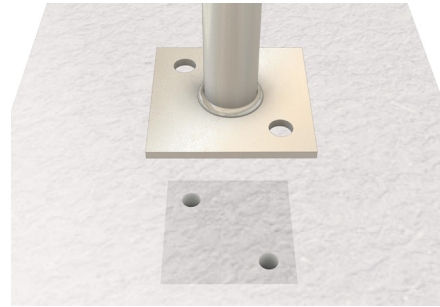
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt manufacturer guidelines for recommended pre-drill hole size and depth for selected fastener. The design engineer should ensure the structural element is capable of supporting the intended design loads.

STEP 1



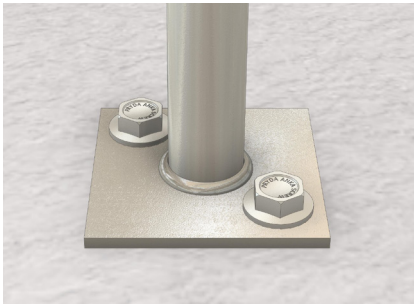
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

STEP 2



- Drill two holes at marked location to required depth for selected hold-down bolt. Refer to bolt manufacturer guidelines for recommended pre-drill hole size and depth. Suggested minimum screw embedment depth 100mm or greater (Section detail shown above).

STEP 3



- Position Post Anchor and insert (either M10 or M12) Ramset galvanised AnkaScrew fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete slab.

STEP 4



- Place timber post (90mmx90mm) upright into Post Anchor stirrup for direct bearing.
- Ensure to locate post central to support base and vertically plumb.

STEP 5



- Drill through post using saddle holes to mark location. Ensure drill through holes are horizontally levelled and perpendicular to saddle.

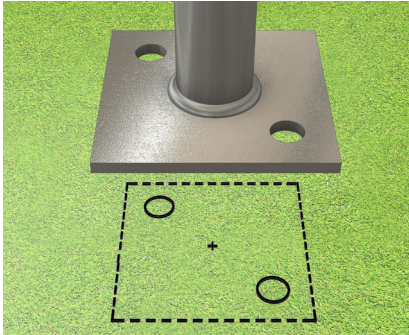
STEP 6



- Insert bolt through saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install washer to timber interface only. (30mm dia.x3mm)
- Install nut and securely fasten .

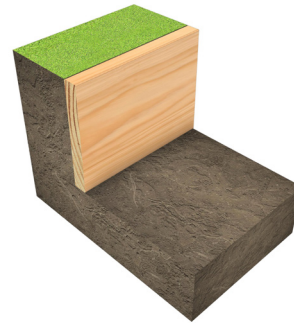
INSTALLATION - FIXING TO WET CONCRETE

STEP 1



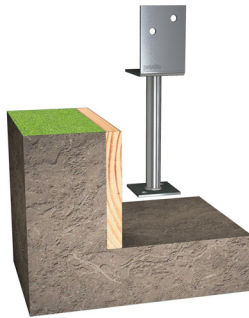
- Orientate anchor as required, measure and mark location of anchor positioning
- Isolated footing should be restricted to stable soil. i.e. Class A and S foundation classification to AS2870.
- Ground assumed level.
- Seek advice from your consulting project Engineer

STEP 2



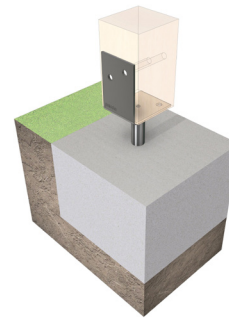
- Dig out ground and construct formwork to required depth as specified by your consulting Engineer.
- Allowance for 150mm stem embedment and 75mm clearance between underside of post to foundation surface.

STEP 3



- Position your Post Anchor in the dugout and suspend at location using temporary framing.
- Ensure post anchor is vertically plumb and level.
- Suggested clearance between underside of post to concrete slab finish surface 75mm.
- Pour your concrete and allow to set.

STEP 4



- Place timber post (90mmx90mm) upright into Post Anchor stirrup for direct bearing.
- Ensure to locate post central to support base and vertically plumb.

STEP 5



- Drill through post using saddle holes to mark location. Ensure drill through holes are horizontally levelled and perpendicular to saddle.

STEP 6



- Insert bolt through saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install washer to timber interface only. (30mm dia.x3mm)
- Install nut and securely fasten.

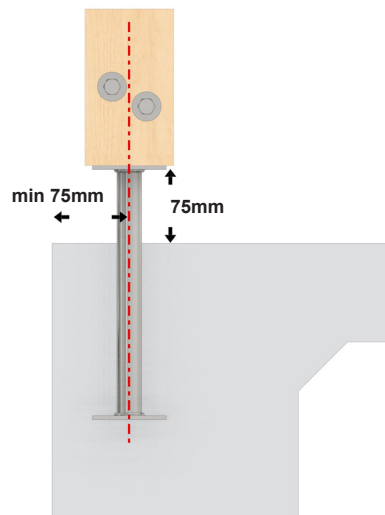
INSTALLATION TIPS

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.

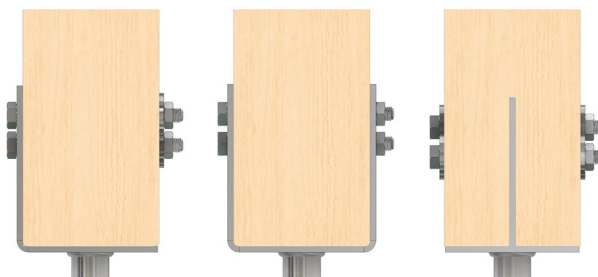
TERMITE & BUSHFIRE MANAGEMENT

- To meet the requirements of AS 3660.1-2014, a minimum of 75mm clearance between the underside of the Post Anchor saddle and the ground surface or concrete is recommended.
- Important to have a regular maintenance routine to clear any debris away from anchor base and stem.



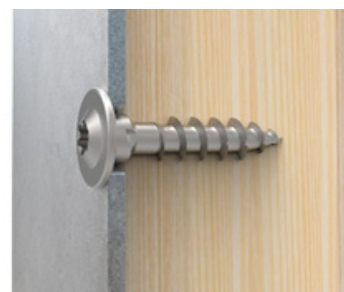
BOLT LENGTH

- When using hex head bolts for fastening your post, it is recommended to use a length 20mm longer than post side or have a minimum of 2x 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.



POST FASTENERS

- Buildex offer a 40 and 50mm Construction Screw designed specifically for fixing Post Anchors.
- The enlarged shank is designed for M10 holes and the self drilling point requires no pre-drilling.
- Product Information:
 - 18G x 40mm, 20 pack – X998278
 - 18G x 50mm, 20 pack – X998292



CONCRETE FASTENERS

- For fixing to existing concrete, Pryda recommend the use of M10 Hex Head Ramset™ WERCST™ Ankascrew™ AS10100WGM50 screw in anchor. Having a 100mm minimum length or longer.
- Alternatively, Ramset M10 Galvanised Dynabolts can also be considered provided the connection is deemed fit for purpose by the project consulting Engineer.
- Product Code – DP10100GH or DP12100GH
- For detailed instructions on installation and design properties, see the Ramset website www.ramset.com.au.



LOOKING FOR MORE DETAILS OR OTHER ANCHORS IN OUR RANGE?

SEE OUR POST ANCHOR DESIGN GUIDE AVAILABLE AT PRYDA.COM.AU