

DESIGN GUIDE

# POST ANCHORS

**2022**

# POST ANCHOR - 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](http://www.pryda.com.au).

# POST ANCHORS

## Economical Timber Post Anchors



- The distance from the top of the concrete to the underside of the post anchor saddle must not exceed 75mm when used with this design guide. All other distance greater than 75mm will need to be designed by the consulting project Engineer.

### Specification

The general specification for Pryda Post Anchors is:

<b>STEEL:</b>	Grade 250 - AS1397 Hot dip galvanised
<b>SIZES:</b>	To suit all widths of timber posts. A variety of leg lengths – refer to each post anchor type for more detail.
<b>APPLICATION:</b>	Wet or dry concrete fixing.

### Advantages

Pryda Post Anchors are manufactured to a consistent quality. Advantages are:

- Compliance with building code requirements
- Hot dip galvanised coating after manufacture, to provide long term protection, suitable for severe external environments (as defined in the Building Code of Australia, HDG 300g/m<sup>2</sup>) which include sites within 1 km from the coast. (Excludes PSB anchors)
- Stems in stirrup anchors are sealed for termite protection
- Improved stability of the base with bolt holes close to the stem
- A large range of sizes to suit: (a) leg lengths from 65 mm to 600 mm (b) stirrup widths 75, 90, 100, 115, 125 mm (c) several configurations: Full Stirrup, Half Stirrup, Bolt Down, Centre Fix, Centre Pin, High Wind and Adjustable.

### Installation

Fixing requirements are included in the Design Capacities table on page 5. To install Pryda Post Anchors:

- Unless noted otherwise, adopt commercial bolts of strength grade 4.6 or greater conforming to AS1111. Use 10 mm (or 3/8") diameter galvanised bolts, except for the High Wind type (PSQ) which requires 12 mm (or 1/2") diameter bolts. Where the bolt head or nut bears directly on the timber (Half Stirrup and Centre Fix types), a 30 mm diameter by 3 mm thick washer is required.
- Use galvanised coach screws- 50x10 mm into side grain and 75x10 mm into end grain.
- Anchors embedded in wet concrete must extend at least 150mm into the concrete to develop the uplift loads tabulated in this guide.
- Recommended minimum bolt length 100mm.

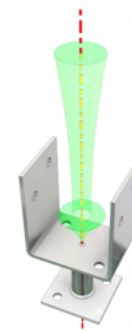
**Typical application for all Pryda Post Anchors are for attached open verandah or similar structures for dwellings.**

**All other usage must be verified/designed by consulting Structural Engineer.**

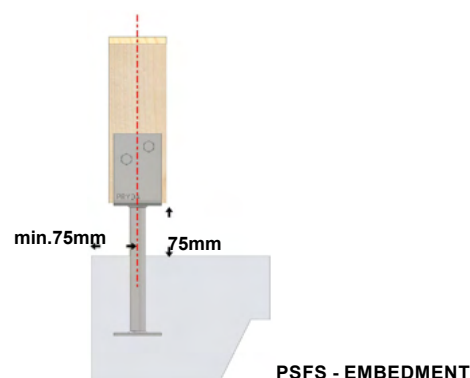
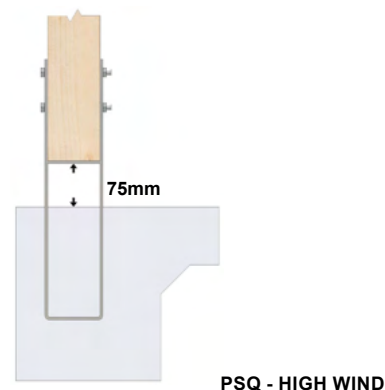
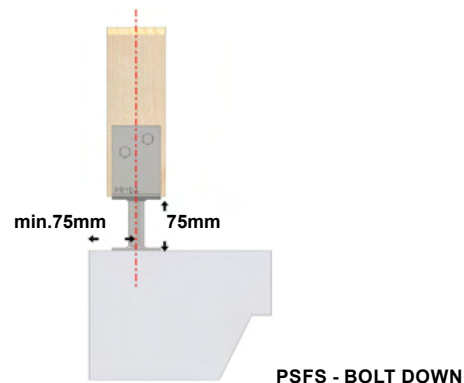
1. The design loads tabulated above require that:
  - (a) the timber post must bear on the Post Anchor base and
  - (b) all post sizes to be a minimum of 75x75 mm section UNO
  - (c) all anchors must be installed plumb
  - (d) for all bolt down anchors, support foundation must be flat and level supporting 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.
4. The base concrete and fixings to the concrete must provide sufficient resistance to the uplift forces and dead +live loads. Uplift capacities stated in this document are stated for the steel and timber ONLY, these capacities may be limited by the fixing to the supporting foundation. This should be verified by the Project Engineer or designer prior to installation.
5. Wind uplift capacities are based on the AS/NZS 1170.2 wind code and AS4055:2012.
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 .i.e Carports and gazebo. Unless designed and approved by a consulting structural Engineer.
8. Post must be laterally restrained at top.
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.
11. Maximum post height 3m and N3 Wind category unless noted otherwise.
12. Local settlement, ground water and soil reactivity will cause isolated concrete footings to 'TILT' and therefore induce bending in to the post stirrup stem. Isolated footing should be restricted to stable soil. ie. Class A and S foundation classification to AS2870.

### **Bushfire Attack Resistance / Termite Management**

Most Pryda Post Anchors meet the requirements of the AS3959 Bush Fire Code. A minimum of 75 mm clearance between the underside of the Post Anchor saddle and the ground surface or paving level is recommended. Complies with AS3660.1-2014 "Termite Management".



Specified capacities are for concentric vertical load transfer only. Load must be directed along geometric center of anchor.



Embedment depth to be designed by Structural Engineer to suit uplift capacity, Concrete edge beam design and stability of structure. suggested minimum edge setback and base clearance shown. Seek advice from Project Consulting Engineer for approved details specific for each project.

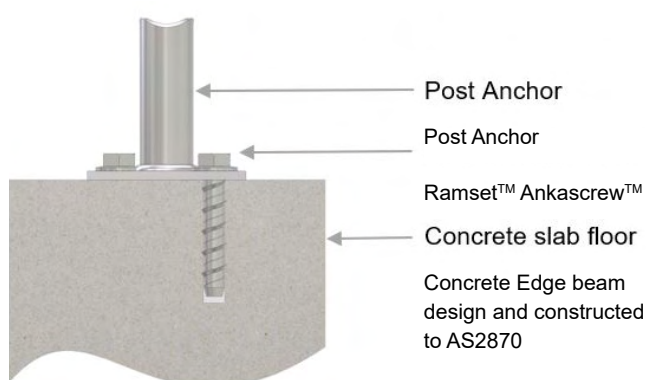
## Pryda Post Anchor Concrete Fixing

Pryda Post Anchors can be either embedded into concrete or fixed to the top surface of reinforced concrete slab edge beams to AS2870 using screw bolt anchors.

Pryda recommends using either Ramset™ WERCS AnkaScrew™ M10 x 100mm Hex Head (AS10100WGM) or M12 x 100mm Hex Head (AS12100WGM) depending on selected post anchor style.

### Installation of AnkaScrews is quick and easy.

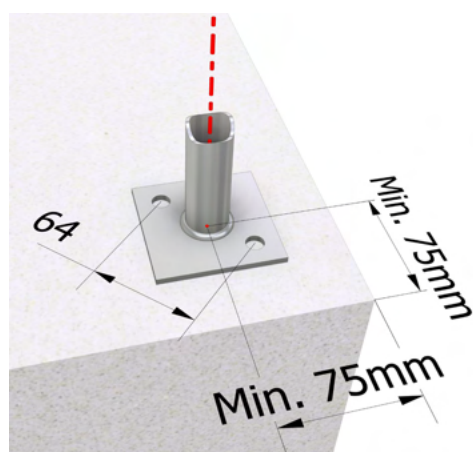
They are self-tapping and non-expansive. Refer to Ramset installation instructions on their web site: [www.ramset.com.au](http://www.ramset.com.au) or contact Ramset. Direct product information and design Specifications from Ramset data sheets takes precedence over information shown on this page.



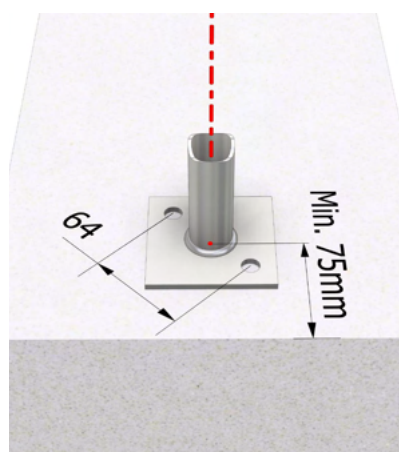
End user shall refer to selected fastener manufacturer for :

- Alternative fasteners that meet or exceeds tie-down capacity of selected Post Anchor.
- Consult with your project Engineer for advice to ensure the selected Post Anchor is “fit for purpose” for the intended support conditions before proceeding.
- Check screw bolt corrosion category and protection level is acceptable for the project environment and supporting substrate.

Suggested edge distance. Refer to selected fastener manufacturer Technical Data Sheet or contact manufacturer for further information on fastener installation conditions and limitations.



**MINIMUM SET-BACK.**  
CENTER OF STEM TO EACH CORNER EDGE OF CONCRETE  
MINIMUM 75MM



**MINIMUM SET-BACK.**  
CENTER OF STEM TO EDGE OF CONCRETE MINIMUM 75MM

# HIGH WIND POST ANCHOR (PSQ)

## FEATURES AND BENEFITS

**STRONG:** The U shape base is designed for maximum hold-down in concrete.

**VERSATILE:** A large range of sizes to suit both post widths and base lengths.

**STRONG:** Hot dip galvanised coating after manufacture and made from 5mm steel.

## SPECIFICATIONS

STEEL	G250
STIRRUP THICKNESS	5mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m <sup>2</sup> )
STEM SIZES	300, 450, 600
POST SIZES	75, 90, 100, 125, 150

## FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M12 4.6 grade galvanised hex head bolts
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Engineered for high wind areas, including tropical regions. The U shape base is designed for maximum hold-down in concrete.

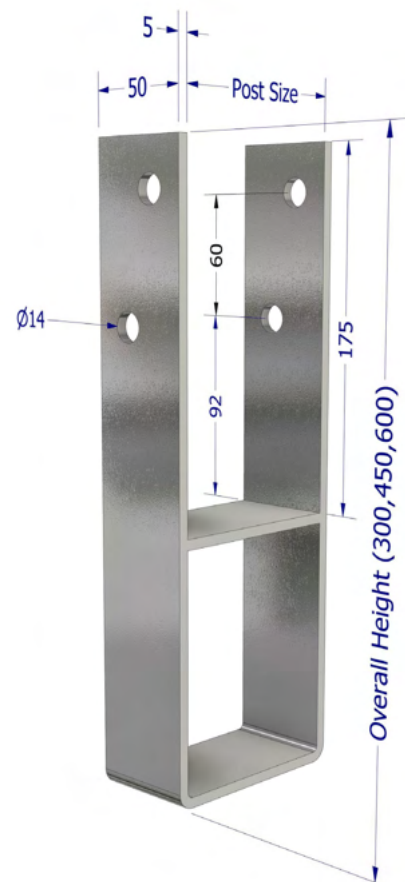
See AS1684:2010 Part 3 - Table 9.20 (j) reinforcing rod install over anchor end.

To be installed central to post and deem to be "fit for purpose" by project Engineer / End user. Post anchors must be installed plumb.



## 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
PSQ30075/12	G250 Steel, Hot Dip Galvanised (500 g/m <sup>2</sup> )	300	75	M12	6
PSQ30090/12			90		
PSQ300100/12			100		
PSQ45075/12		450	75		
PSQ45090/12			90		
PSQ450100/12			100		
PSQ60090/12/4		600	90		4
PSQ600100/12/4			100		
PSQ600125/12/4			125		
PSQ600150/12/4			150		
PSQ600100/12/4B	G250 Steel, Hot Dipped Galvanised (500 g/m <sup>2</sup> ) + Black Powder Coating		100		

## DESIGN CAPACITIES

Limit State Design capacities ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

HIGH WIND POST ANCHOR		UPLIFT CAPACITIES FOR VARYING JOINT GROUPS						
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
2 x M12 bolts	All	33	36	36	36	36	36	36

### NOTES:

- The maximum downward loading is limited to 25kN at a height of 75mm from base of post to foundation.
- 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 75 x 75mm 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.

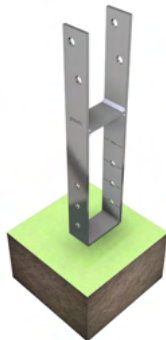
### IMPORTANT:

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



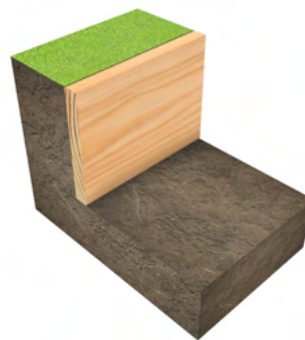
## INSTALLATION - FIXING TO WET CONCRETE

### STEP 1



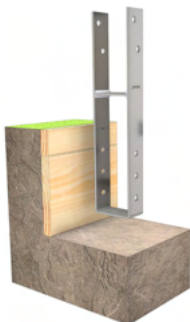
- Orientate anchor as required, measure and mark location of anchor positioning
- Isolated footing should be restricted to stable soil.
- i.e. Class A and S foundation classification to AS2870.
- Ground assumed level.
- Seek advice from your consulting project Engineer.

### STEP 2



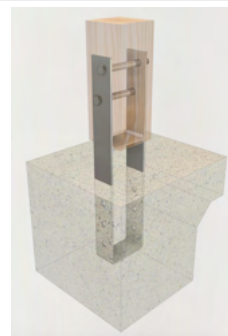
- Dig out ground and construct formwork to required depth as specified by your consulting Engineer.
- Allowance for 150mm anchor embedment and 75mm clearance between underside of post to foundation surface.

### 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 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 2x M12 bolt through saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten



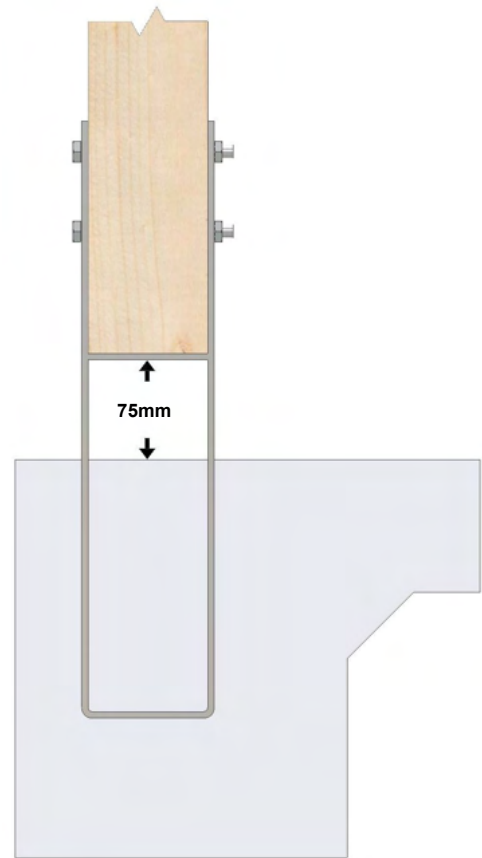
## INSTALLATION TIPS

### 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 and stem.

### 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.
- Routinely clear away debris or any obstructions at anchor base on a regular basis.



### 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 2 x thread pitch extend beyond the outward surface of the hex nut.
- Account for the thickness of the saddle and allow sufficient thread of the bolt to pass the hex nut.
- For example, a 115mm-120mm hex head bolt would suit a 90mm post anchor.



**LOOKING FOR MORE DETAILS OR OTHER ANCHORS IN OUR RANGE?**

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

# ADJUSTABLE POST ANCHOR (PS)

## FEATURES AND BENEFITS

**EASY:** No checking of post size is required.

**VERSATILE:** Can be used with a range of post sizes up to 150mm.

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

## SPECIFICATIONS

STEEL	G250
THICKNESS	4mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m <sup>2</sup> )
STEM SIZE	85, 160
POST SIZE	90 - 150

## FASTENERS REQUIRED

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

Convenient and fully adjustable for any practical post size. No checking of the post is required. Recommended post size 90mm-150mm.

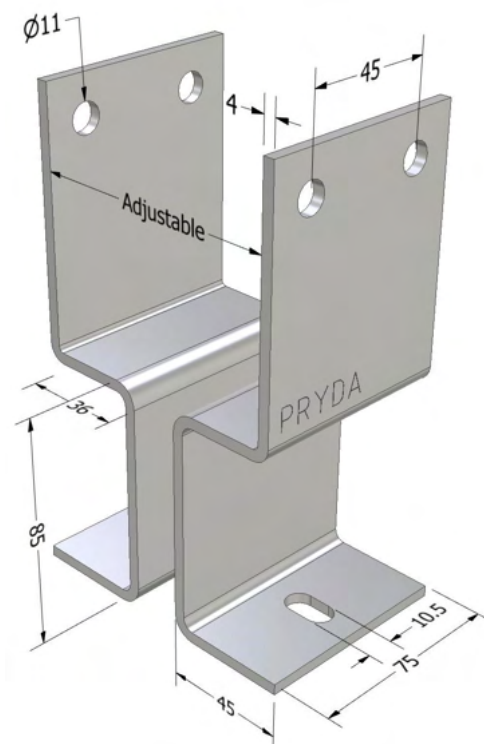
Timber post to be installed central to the post anchor. It is the responsibility of the Project Engineer / Architect / Building practitioner / Trade person and end user to ensure the product is verified to be "fit for purpose" for each project.

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
PS85	G250 Steel Hot Dip Galvanised (500 g/m <sup>2</sup> )	85	90 - 150	M10	10
PS160		160	90 - 150	M10	10

## DESIGN CAPACITIES - STEEL STRENGTH ONLY

Ultimate Limit State Design capacities ( $\Phi N_c$ ,  $\Phi N_t$ ) for Pryda Standard Post:

PRODUCT CODE	AXIAL COMPRESSION $\Phi N_c$ (KN)	AXIAL TENSION $\Phi N_t$ (KN)
PS85	24	8
PS160	12	

## DESIGN CAPACITIES - WIND UPLIFT

Limit State Design capacities ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

ADJUSTABLE POST ANCHOR		UPLIFT CAPACITIES FOR VARYING JOINT GROUP						
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
4 x M10 x 50mm coach screws or 2 x M10 Bolts.	90	4.6	7.4	8	5.8	8	8	8

### NOTES:

- 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 90mm section.
- Select design capacity according to the standard used for determining the design loads.
- Specified capacities are for concentric vertical load transfer only. As a guide, limit the axial compression load to approximately 50% of the design capacity for eccentrically loaded conditions.
- 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.

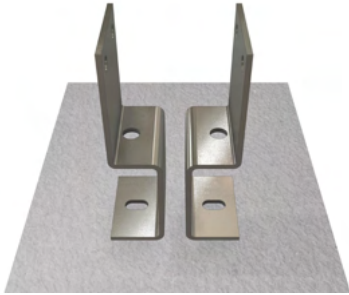
### IMPORTANT:

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

## INSTALLATION

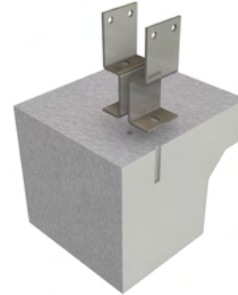
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt 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 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.

### 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 (Section detail shown above).

### STEP 3



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

### STEP 4



- Place timber post 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 nut and securely fasten.

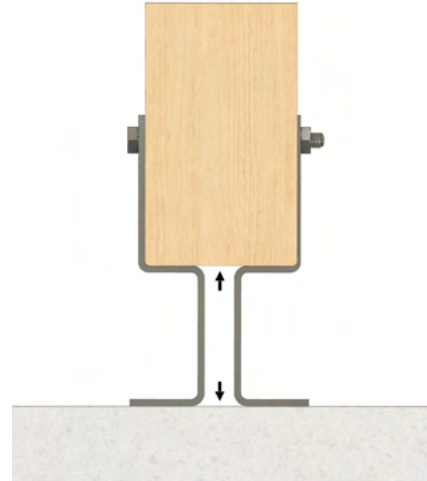
## INSTALLATION TIPS

### 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 and stem.

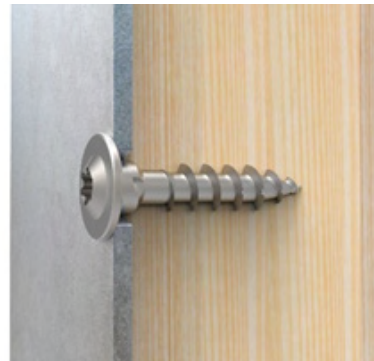
### TERMITE & BUSHFIRE MANAGEMENT

- 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.
- Routinely clear away debris or any obstructions at anchor base on a regular basis.



### POST FASTENERS

- Buildex offer a 40 & 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™ WERCS™ 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](http://www.ramset.com.au)



**LOOKING FOR MORE DETAILS AND OTHER ANCHORS IN OUR RANGE?**

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# BOLT DOWN POST ANCHOR WITH BASE SADDLE (PSB)

## FEATURES AND BENEFITS

**ECONOMICAL:** Inexpensive solution for fixing posts to concrete

**ADJUSTABLE:** Knockout washer facilitates position adjustment after anchor holes are drilled

**VERSATILE:** Range covers common post sizes

## SPECIFICATIONS

STEEL	G250
THICKNESS	2mm Stirrup / 3mm base
CORROSION RESISTANCE	Hot dip galvanised 300 g/m <sup>2</sup>
POST SIZES	90, 100, 115

## FASTENER REQUIRED

POST STIRRUP TO TIMBER POST	M10 4.6 grade galvanised hex head bolts M10 or M12 x 50mm 4.6 grade galvanised coach screws
POST BASE TO CONCRETE	M10 or M12 x 100mm galvanised Ramset Ankascrew

With knockout 3 mm adjustable washer- to facilitate adjustment after bolt holes have been drilled. Used for locating posts onto new/existing concrete footing.

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 concrete footing. Maximum post height 3m, N3 Wind category.

## AS1720 & AS4055 COMPLIANT



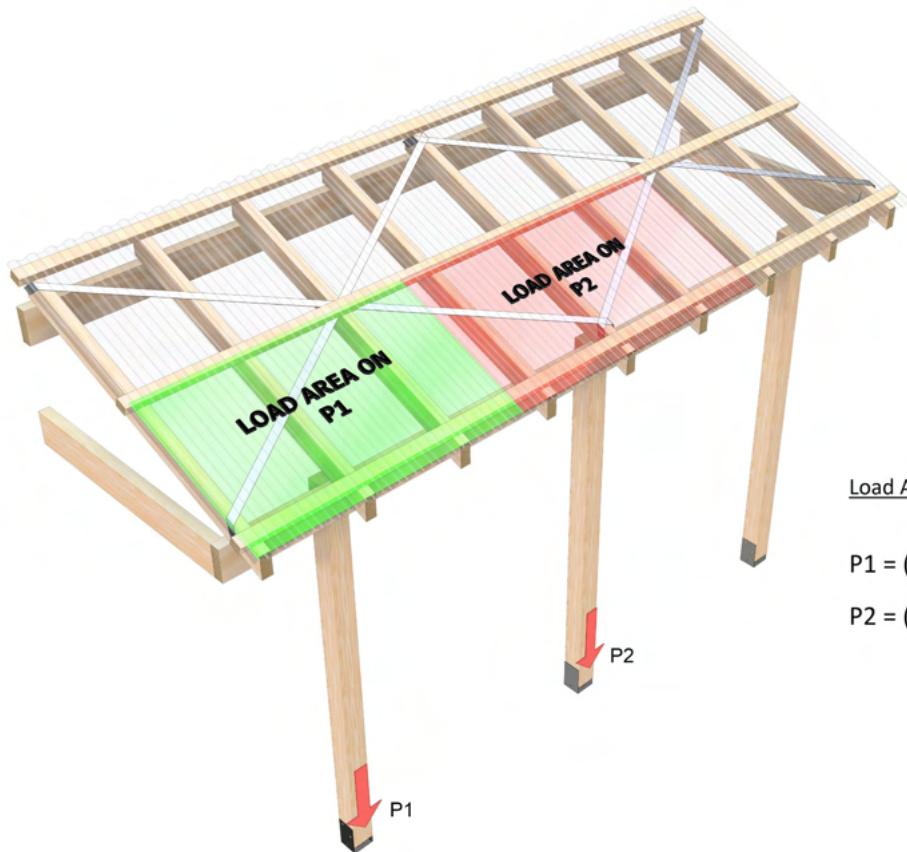
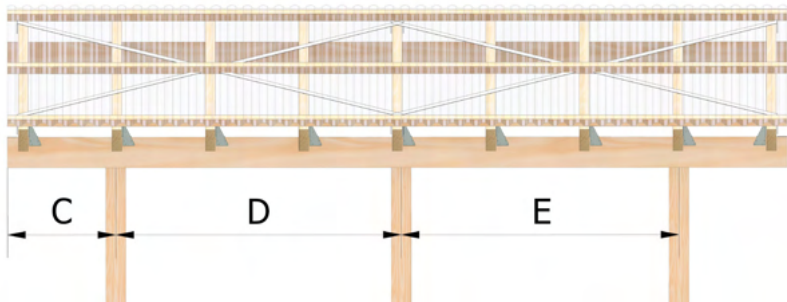
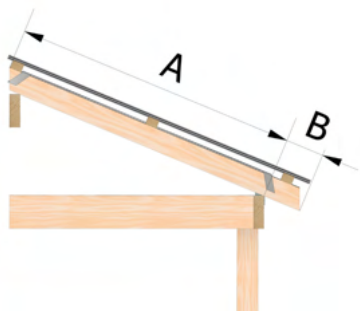
- Designed in accordance with Pryda testing and relevant Australian standards
- Engineering computations in accordance with the relevant Australian standards
- Not suitable for bushfire-prone or termite-prone areas





RANGE

PRODUCT CODE	MATERIAL	POST SIZE (MM)	BOLT HOLE SIZE	QTY
PSB90G	G250 Steel Hot Dip Galvanised (300 g/m <sup>2</sup> )	90	M10	12
PSB90G/12			M12	
PSB100G		100	M10	
PSB100G/12			M12	
PSB115G		115	M10	
PSB90GB	G250 Steel Hot Dip Galvanised (300 g/m <sup>2</sup> ) + Black Powder Coating	90	M10	



Load Area Calculations for:

$$P1 = \left(\frac{A}{2} + B\right) \times \left(C + \frac{D}{2}\right)$$

$$P2 = \left(\frac{A}{2} + B\right) \times \left(\frac{D}{2} + \frac{E}{2}\right)$$



RECOMMENDED LOAD AREA FOR ATTACHED OPEN VERANDAH FOR CLASS 1 DWELLING AND CLASS 10 STRUCTURES			
	LIGHT SHEET ROOF (10KG/M <sup>2</sup> )	SHEET ROOF (40KG/M <sup>2</sup> )	TILED ROOF (75KG/M <sup>2</sup> )
WIND SPEED	Maximum Roof Area m <sup>2</sup>		
N2	3.9	4.9	5.0
N3/C1	2.4	2.8	3.3
N4/C2	1.6	1.7	2.0

- Light Sheet Roof: Sheet roofing 0.50mm thick and battens.
- Sheet Roof: Steel sheet roofing 0.75mm thick and fiberboard ceiling lining
- Tiled Roof: Terracotta or concrete tile and plasterboard ceiling.

**NOTES:**

- 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 75x75 mm section (3m max. height)
  - (c) reduce load area for 115x115 Post on PSB115G, multiplier to be applied to tabulated areas x 0.83
- Select design capacity according to the standard used for determining the design loads.
- Specified capacities are for 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 Anchors are not intended to be used for cantilever posts and balustrades without pre-approval from an Engineer

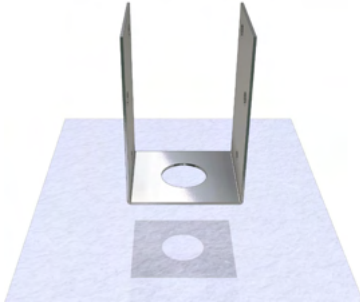
**IMPORTANT:**

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

## INSTALLATION

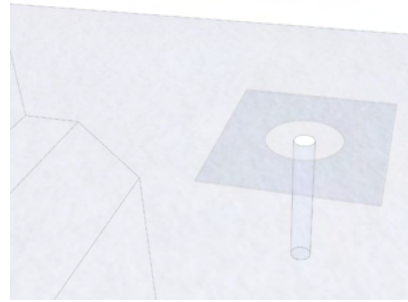
Note: these anchors can only fit a single fastener in the base. It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. 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



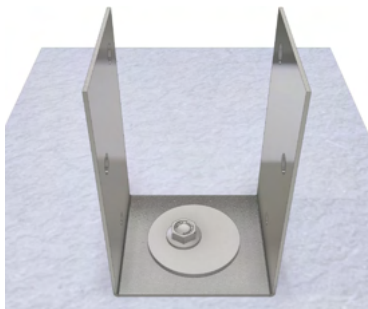
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.

### STEP 2



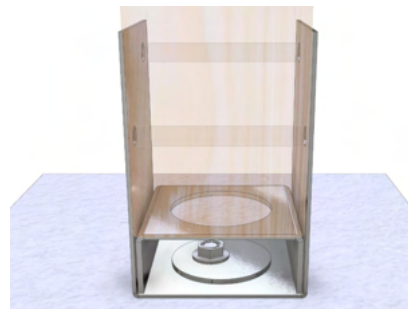
- Drill single hole at marked location to required depth for selected hold-down bolt. Hole can be offset from center point within cut-out for adjustment purposes. Suggested minimum screw embedment depth 100mm or greater.

### STEP 3



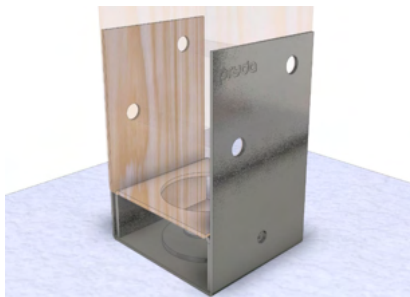
- Position Post Anchor base over hole location and install large washer over cut-out. Align washer bolt hole to drilled hole and insert selected Ramset galvanised AnkaScrew fastener. (AnkaScrew shown)
- Tighten fastener to pull down Post Anchor base firmly onto the concrete slab.

### STEP 4



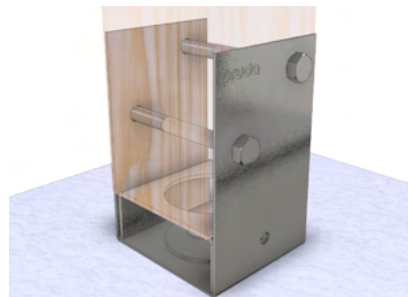
- Install insert over washer and lock into position by aligning side dimples to corresponding side holes.
- Place timber post upright into Post Anchor stirrup for direct bearing on insert.
- Ensure to locate post central to support base and vertically plumb.

### STEP 5



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

### STEP 6

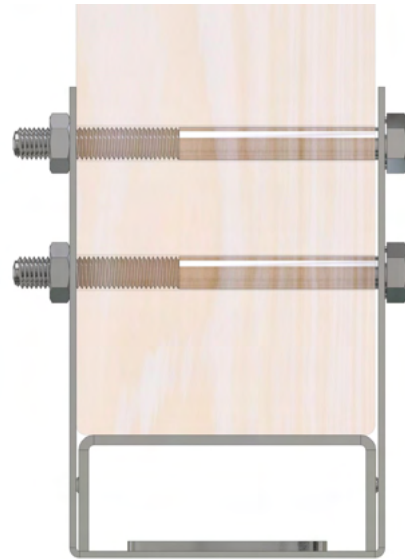


- Insert either 2 x hex head bolts or 4 x coach screws and securely fasten.

## 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 and stem.
- 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.

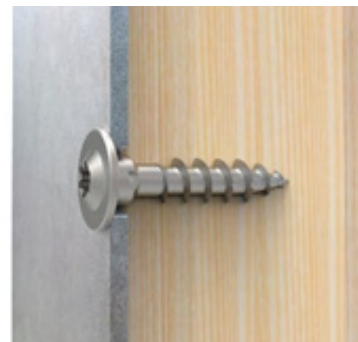


### BOLT LENGTH

- 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 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

### POST FASTENERS

- Buildex offer a 40 & 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](http://www.ramset.com.au)



### LOOKING FOR MORE DETAILED DESIGN VALUES?

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# BOLT DOWN POST ANCHOR (PSBD)

## FEATURES AND BENEFITS

**ECONOMICAL:** Inexpensive solution for fixing posts to concrete

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

**VERSATILE:** Range covers common post sizes

## SPECIFICATIONS

STEEL	G250
THICKNESS	4mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m <sup>2</sup> )
POST SIZES	75mm, 90mm, 100mm

## FASTENER REQUIRED

POST STIRRUP TO TIMBER POST	M10 or M12 4.6 grade galvanised hex head bolts M10 or M12 x 50mm 4.6 grade galvanised coach screws
POST BASE TO CONCRETE	M10 or M12 galvanised Ramset Ankascrew

Heavy duty 4mm thick U-stirrup bolt down anchor are ideal for directly anchoring post to concrete or approved support where no base clearance is required.

## AS1720 & AS4055 COMPLIANT



- Designed in accordance with Pryda testing and relevant Australian standards
- Engineering computations in accordance with the relevant Australian standards
- Not suitable for bushfire-prone or termite-prone areas



## RANGE

PRODUCT CODE	MATERIAL	POST SIZE (MM)	BOLT HOLE SIZE	QTY
PSBD75	G250 Steel Hot Dip Galvanised (500 g/m <sup>2</sup> )	75	M10	10
PSBD75/12			M12	
PSBD90		90	M10	10
PSBD90/12			M12	
PSBD100		100	M10	10
PSBD100/12			M12	

## DESIGN CAPACITIES

Limit State Design capacities ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

UPLIFT CAPACITIES FOR VARYING JOINT GROUPS								
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
2 x M10 bolts		12.0	12.0	12.0	12.0	12.0	12.0	12.0
4 x M10 x 50mm coach screws	75	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	90	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	100	6.1	9.6	12.0	6.5	10.3	12.0	12.0

### NOTES:

- 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 75 x 75 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.

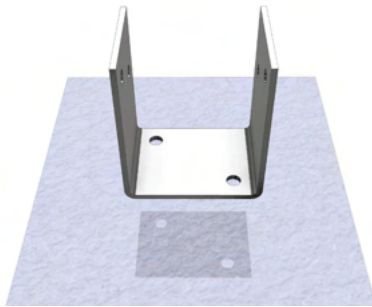
### IMPORTANT:

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

## INSTALLATION

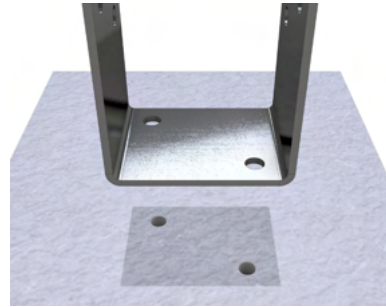
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt 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



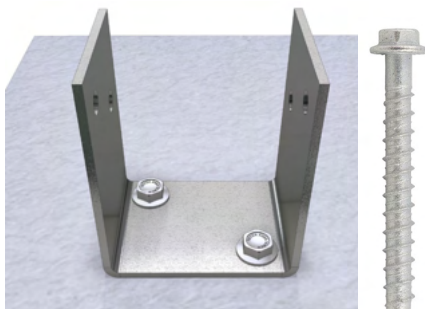
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

### 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



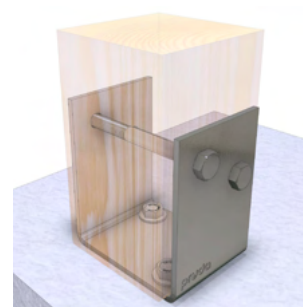
- Place timber post upright into Post Anchor stirrup for direct bearing.
- Ensure to locate post central to support base and vertically plumb.

### STEP 5



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

### STEP 6



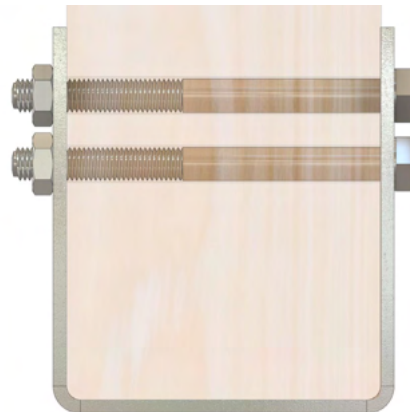
- Insert bolt through saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.



## 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.
- 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.

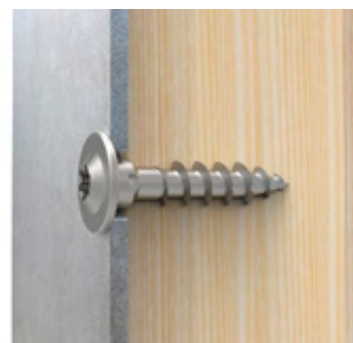


### BOLT LENGTH

- 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 & 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](http://www.ramset.com.au)



#### LOOKING FOR MORE DETAILED DESIGN VALUES?

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# BOLT DOWN POST ANCHOR WITH RAISED MOUNT (PSBM)

## FEATURES AND BENEFITS

**ECONOMICAL:** Inexpensive solution for fixing posts to concrete

**EASY:** Includes mounts to easily install post off the ground

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

## SPECIFICATIONS

STEEL	G250
THICKNESS	4mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m <sup>2</sup> )
POST SIZES	90mm, 100mm

## FASTENER REQUIRED

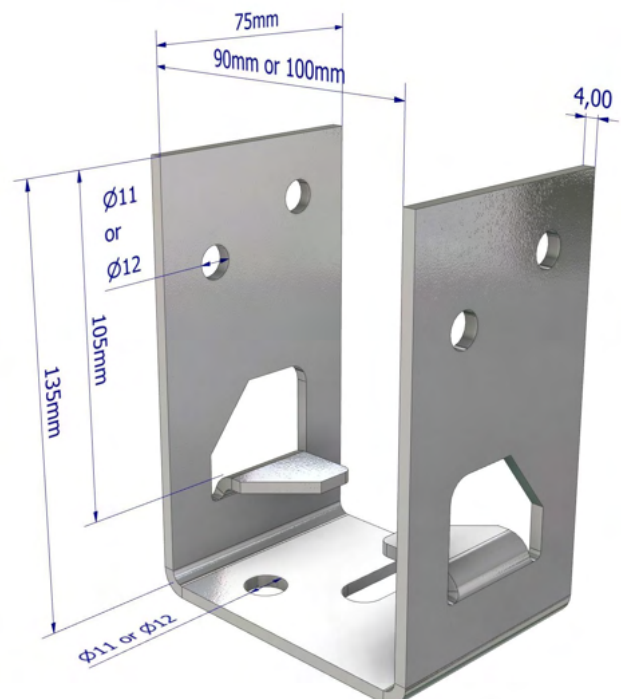
POST STIRRUP TO TIMBER POST	M10 or M12 4.6 grade galvanised hex head bolts M10 or M12 x 50mm 4.6 grade galvanised coach screws
POST BASE TO CONCRETE	M10 x galvanised Ramset Ankascrew

Heavy Duty Pryda Bolt Down anchor with raised mount is ideal for post having low clearance connection. The integrated raise mount simplifies installation, raising the post end 35mm off the ground.

## AS1720 & AS4055 COMPLIANT



- Designed in accordance with Pryda testing and relevant Australian standards
- Engineering computations in accordance with the relevant Australian standards
- Not suitable for bushfire-prone or termite-prone areas



## RANGE

PRODUCT CODE	MATERIAL	POST SIZE (MM)	BOLT HOLE SIZE	QTY
PSBM90	G250 Steel Hot Dip Galvanised (500 g/m <sup>2</sup> )	90	M10	10
PSBM90/12			M12	
PSBM100		100	M10	
PSBM100/12			M12	

## DESIGN CAPACITIES

Limit State Design capacities ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

UPLIFT CAPACITIES FOR VARYING JOINT GROUPS								
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
2 x M10 bolts		12.0	12.0	12.0	12.0	12.0	12.0	12.0
4 x M10 x 50mm coach screws	75	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	90	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	100	6.1	9.6	12.0	6.5	10.3	12.0	12.0

### NOTES:

- 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.

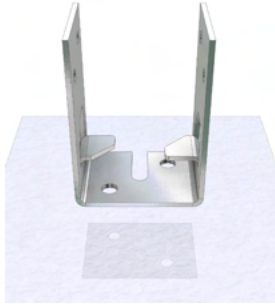
### IMPORTANT:

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

## INSTALLATION

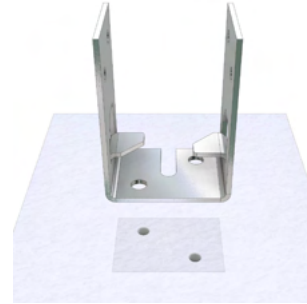
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt 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



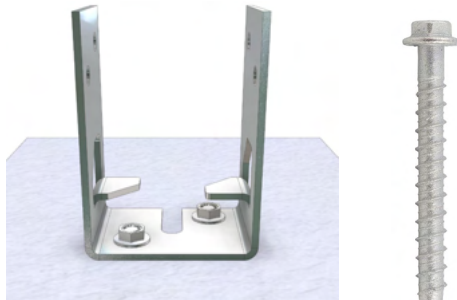
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

### 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



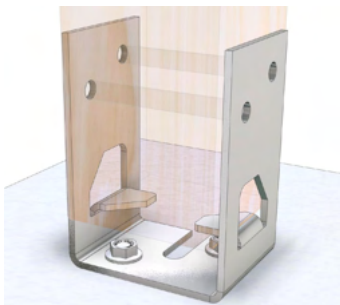
- Position Post Anchor and insert (either M10 or M12) Ramset galvanised AnkaScrew fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete slab.

### STEP 4



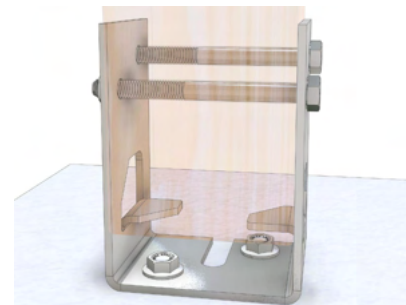
- Place timber post upright into Post Anchor stirrup for direct bearing.
- Ensure to locate post central to support base and vertically plumb.

### STEP 5



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

### STEP 6

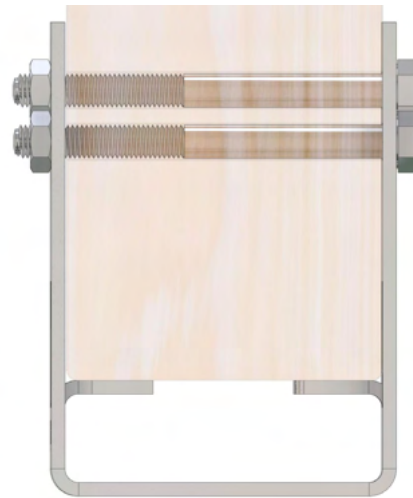


- Insert bolt through saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.

## 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.
- 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.

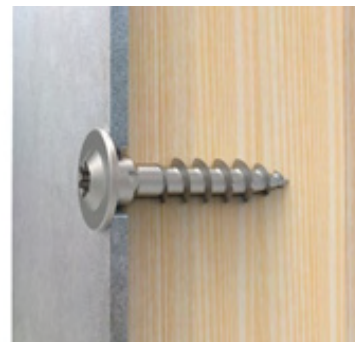


### BOLT LENGTH

- 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 & 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](http://www.ramset.com.au)



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# CENTRE FIX POST ANCHOR (PSCF)

## FEATURES AND BENEFITS

**CONCEALED:** The central blade allows for a hidden appearance after installation.

**VERSATILE:** Bolt to existing concrete or submerge into wet concrete.

**STRONG:** Hot dip galvanised coating and made from 4mm steel.

## SPECIFICATIONS

STEEL	G250
STIRRUP THICKNESS	4mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m <sup>2</sup> )
STEM SIZES	130, 300
POST SIZES	90-150

## FASTENERS REQUIRED

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

Generally used to “hide” the post anchor. The post is slotted at the bottom and bolted through the post and anchor, leaving only the bolt heads, nuts and washers visible.

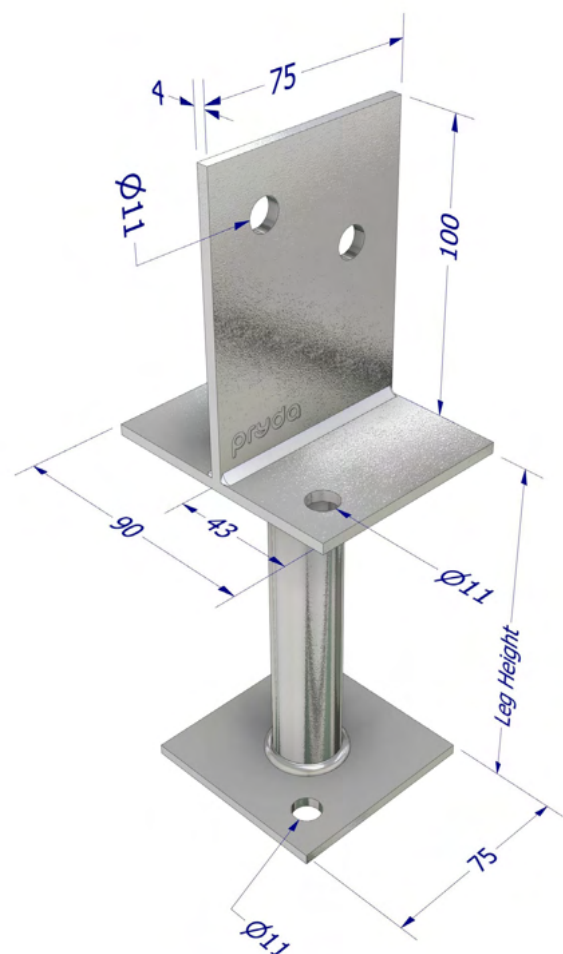
Can be bolted to existing concrete or set into concrete. Timber post to be installed central to the post anchor. It is the responsibility of the Project Engineer / Architect/ Building practitioner / Trade person and end user to ensure the product is verified to be “Fit for purpose” for each project.

Post anchors must be installed plumb and on 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
PSCF130	G250 Steel, Hot Dip Galvanised (500 g/m <sup>2</sup> )	130	90 - 150	M10	10
PSCF300		300			

## DESIGN CAPACITIES

Limit State Design capacities ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

CENTRE FIX POST ANCHOR		UPLIFT CAPACITIES FOR VARYING JOINT GROUPS						
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
2 x M10 bolts	90	9.1	11.5	12	11.5	12	12	12

### 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 90mm 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:

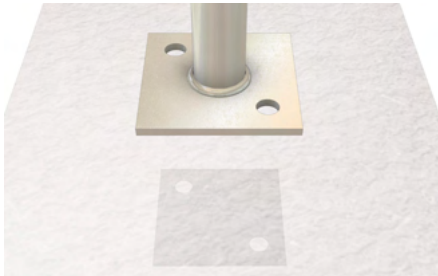
READ THIS DATASHEET IN CONJUNCTION WITH PRYDA POST ANCHORS GUIDE AND REFER TO GENERAL NOTES AND LIMITATIONS.



## INSTALLATION - FIXING TO DRY CONCRETE

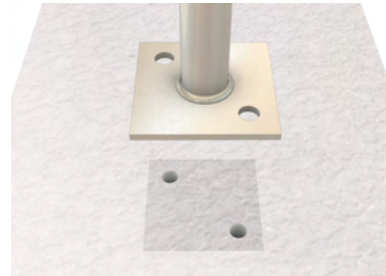
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt 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



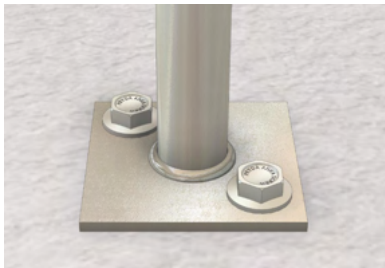
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

### 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 M10 Ramset galvanized AnkaScrew fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete slab.

### STEP 4



- Use a circular saw to cut a 4mm slot through the center of the post to a depth of 100mm.
- Mark side holes using anchor center fix flange as stencil to mark post bolted holes location.
- Place timber upright into Post Anchor stirrup, ensure post is located centrally.

### STEP 5



- Drill holes either side of the timber, meeting at the middle holes of the blade of the post anchor. Ensure drill through holes are horizontally levelled and perpendicular to saddle.
- For coach screws, drill pilot holes to the length of selected screws.

### STEP 6

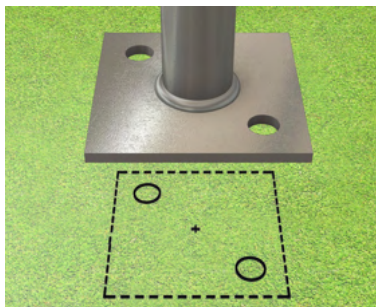


- Insert bolt through washer, saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install washer, nut and securely fasten. (Washer: min. 30x3mm at both ends of each bolt).



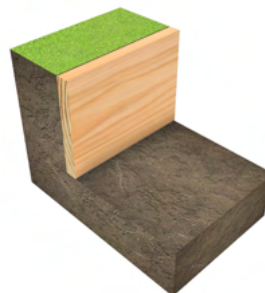
## INSTALLATION - FIXING TO WET CONCRETE

### STEP 1



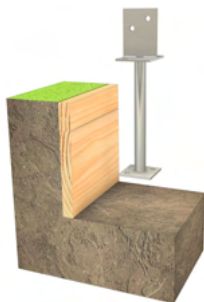
- Orientate anchor as required, measure and mark location of anchor positioning.
- Isolated footing should be restricted to stable soil. i.e. Class A and S foundation classification to AS2870.
- Ground assumed level.
- Seek advice from your consulting project Engineer.

### 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



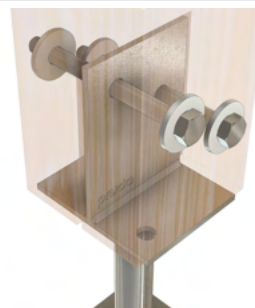
- Use a circular saw to cut a 4mm slot through the center of the post to a depth of 100mm.
- Mark side holes using anchor center fix flange as stencil to mark post bolted holes location.
- Place timber upright into Post Anchor stirrup, ensure post is located centrally.

### STEP 5



- Drill holes either side of the timber, meeting at the middle holes of the blade of the post anchor. Ensure drill through holes are horizontally levelled and perpendicular to saddle.
- For coach screws, drill pilot holes to the length of selected screws.

### STEP 6

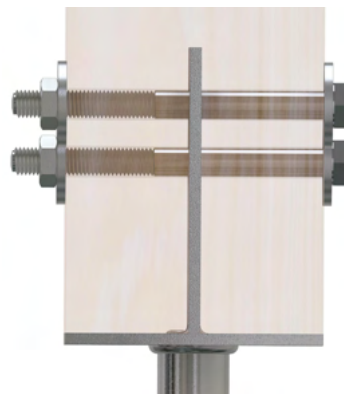


- Insert bolt through washer, saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install washer, nut and securely fasten. (Washer: min. 30x3mm at both ends of each bolt).

## INSTALLATION TIPS

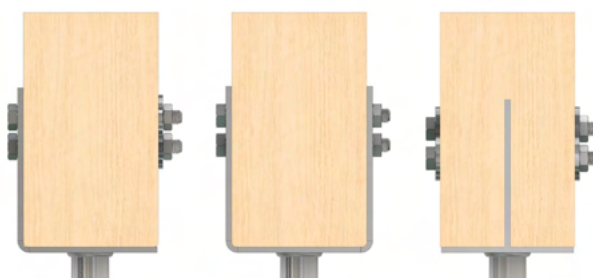
### FOUNDATION SLOPE

- 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.



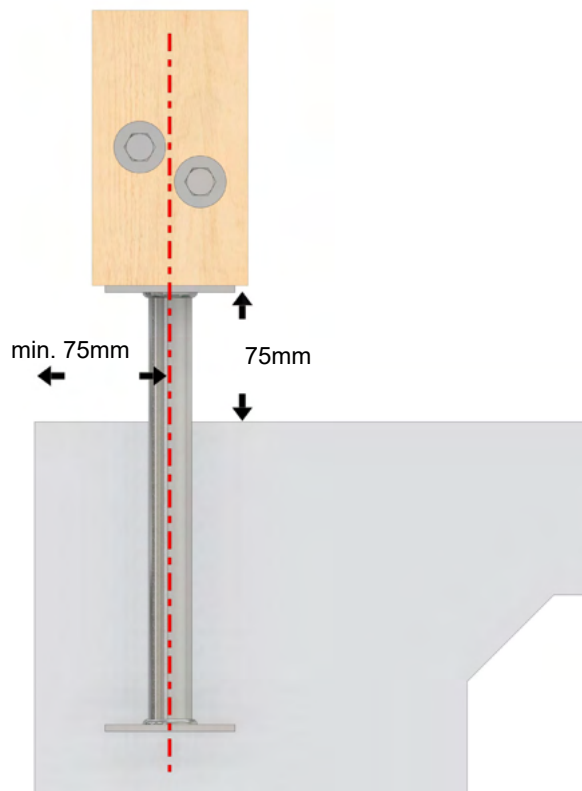
### BOLT LENGTH

- When using hex head bolts for fastening your post, it is recommended to use a length 20mm longer than post side.
- This accounts for the thickness of the saddle, washer and allows for sufficient thread of the bolt.
- For example, a 110mm hex head bolt would suit a 90mm post anchor.



### 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.



### CONCRETE FASTENERS

- For fixing to existing concrete, Pryda recommend the use of M10 Hex Head Ramset™ WERCS™ 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](http://www.ramset.com.au)



**LOOKING FOR MORE DETAILS AND OTHER ANCHORS IN OUR RANGE?**

SEE OUR POST ANCHOR DESIGN GUIDE AVAILABLE AT [PRYDA.COM.AU](http://PRYDA.COM.AU)

# CENTRE PIN POST ANCHOR (PSCP)

## FEATURES AND BENEFITS

**CONCEALED:** The central pin allows for a hidden appearance after installation

**VERSATILE:** Bolt to existing concrete or submerge into wet concrete

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

## SPECIFICATIONS

STEEL	G250
STIRRUP THICKNESS	4mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m <sup>2</sup> )
STEM SIZES	130, 300
POST SIZES	90 - 125

## FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 x 75mm 4.6 grade galvanised coach screws
POST BASE TO CONCRETE	M10 galvanised Ramset Ankascrew

For use where the post anchor is NOT to be visible.

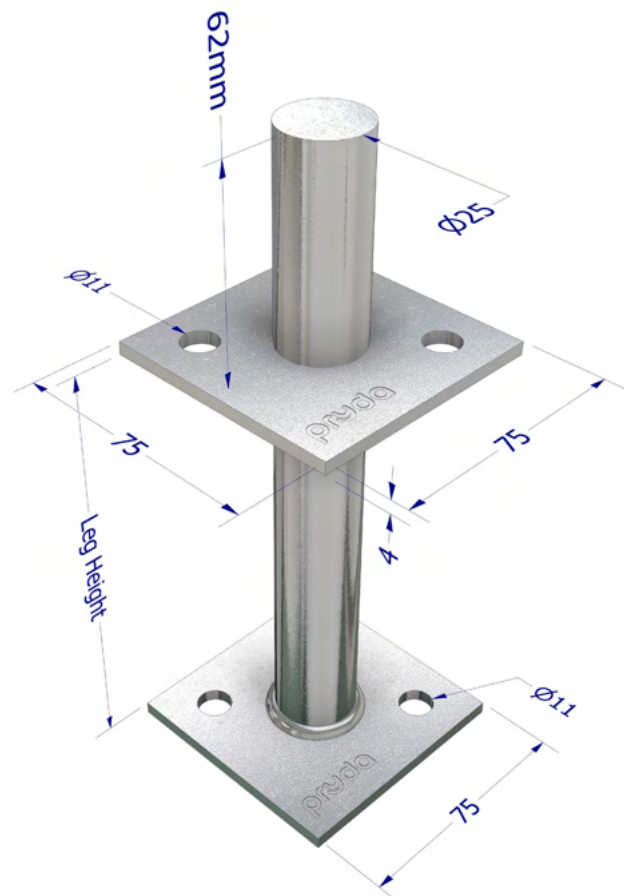
Due to the fixing method, it is only suitable for small spans or where no roofing is used Timber post to be installed central to the post anchor. It is the responsibility of the Project Engineer / Architect / Building practitioner / Trade person and end user to ensure the product is verified to be "Fit 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
PSCP130	G250 Steel, Hot Dip Galvanised (500 g/m <sup>2</sup> )	130	90 - 125	M10	10
PSCP300/6		300			6

## DESIGN CAPACITIES

Limit State Design capacities ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

CENTRE FIX POST ANCHOR		UPLIFT CAPACITIES FOR VARYING JOINT GROUPS						
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
2 x 75mm x M10 coach screw	All	4.1	6	8.2	3.9	5.2	7.5	10.3

### 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 90mm 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.

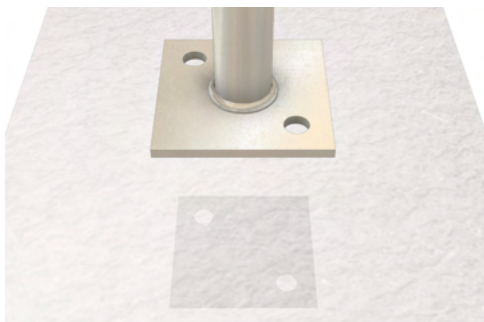
### IMPORTANT:

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

## INSTALLATION - FIXING TO DRY CONCRETE

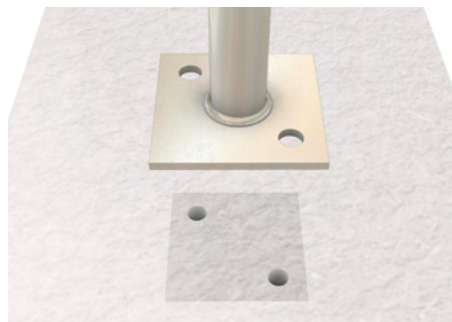
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt 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



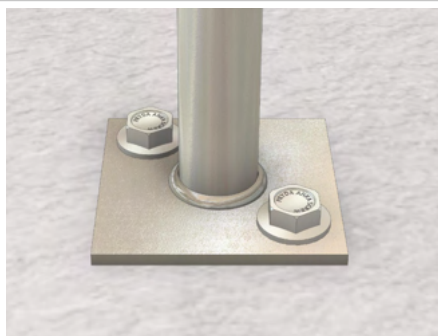
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

### STEP 2



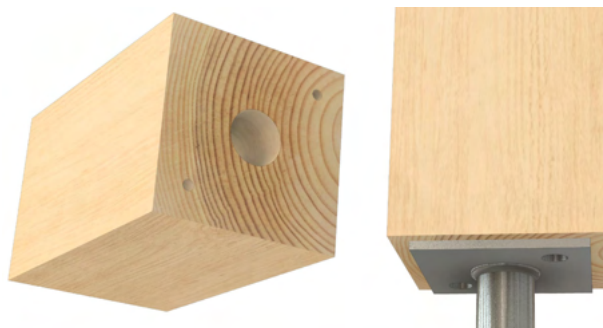
- Drill two holes at marked location to required depth for selected hold-down bolt. Refer to bolt manufacturer guidelines for recommended pre-drill hole size and depth. Suggested minimum screw embedment depth 100mm or greater. (Section detail shown above).

### STEP 3



- Position Post Anchor and insert M10 Ramset galvanized AnkaScrew fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete slab.

### STEP 4



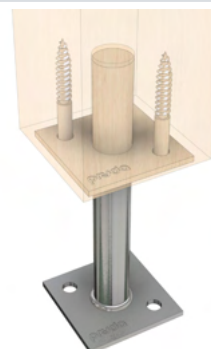
- Drill a hole 26mm in diameter by 65mm in length central to the post.
- Place timber upright into Post Anchor stirrup.

### STEP 5



- Using the base holes as guides, drill 75mm pilot holes.

### STEP 6

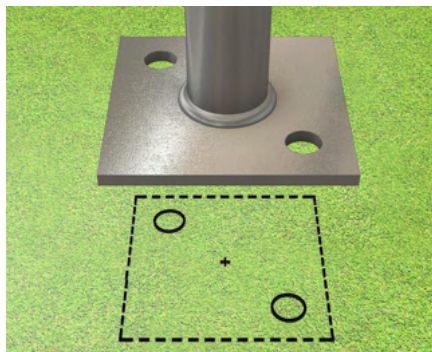


- Insert M10 x 75mm coach screws and securely fasten.



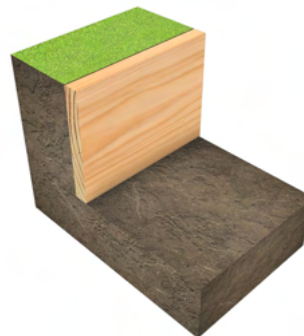
## INSTALLATION - FIXING TO WET CONCRETE

### 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



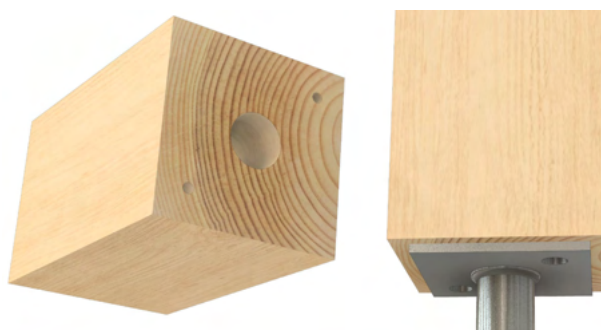
- Dig out ground and construct formwork to required depth as specified by your consulting Engineer.
- Allowance for 150mm stem embedment and 75mm clearance between underside of post to foundation surface.

### 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



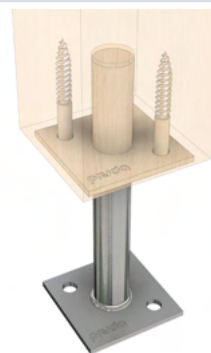
- Drill a hole 26mm in diameter by 65mm in length central to the post.
- Place timber upright into Post Anchor stirrup and secure into position.

### STEP 5



- Using the base holes as guides, drill 75mm pilot holes.

### STEP 6



- Insert M10 x 75mm coach screws and securely fasten.

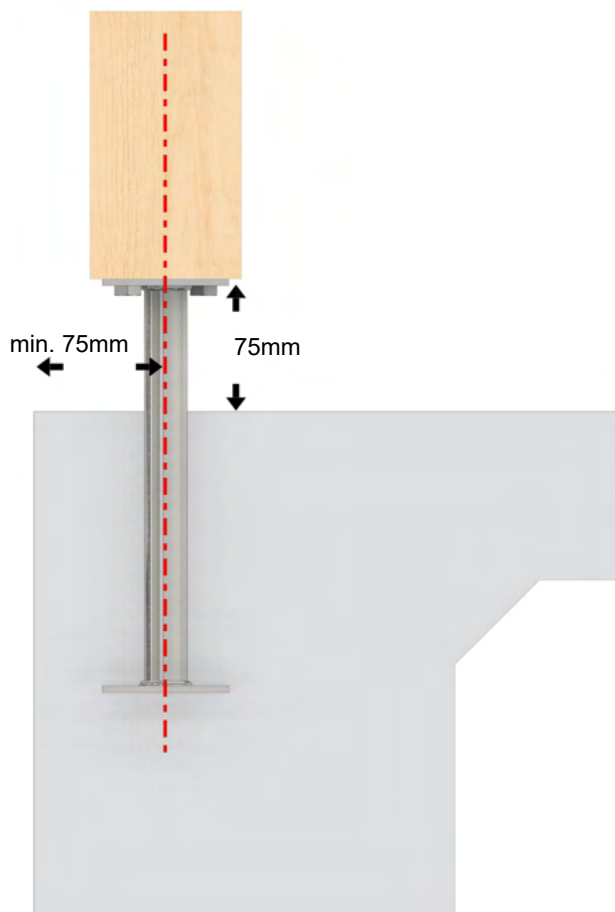
## INSTALLATION TIPS

### 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.



### CONCRETE FASTENERS

- For fixing to existing concrete, Pryda recommend the use of M10 Hex Head Ramset™ WERCS™ 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](http://www.ramset.com.au)



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# FULL STIRRUP POST ANCHOR (PSFS)

## FEATURES AND BENEFITS

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

**VERSATILE:** A large range of sizes to suit both post widths and stem lengths

**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 <sup>2</sup> )
STEM SIZES	65, 130, 200, 250, 300, 450, 600
POST SIZES	75, 90, 100, 115, 125

## FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 or M12 4.6 grade galvanised hex head bolts M10 or M12 x 50mm 4.6 grade galvanised coach screws
POST BASE TO CONCRETE	M10 or M12 x 100mm galvanised Ramset Ankascrew™

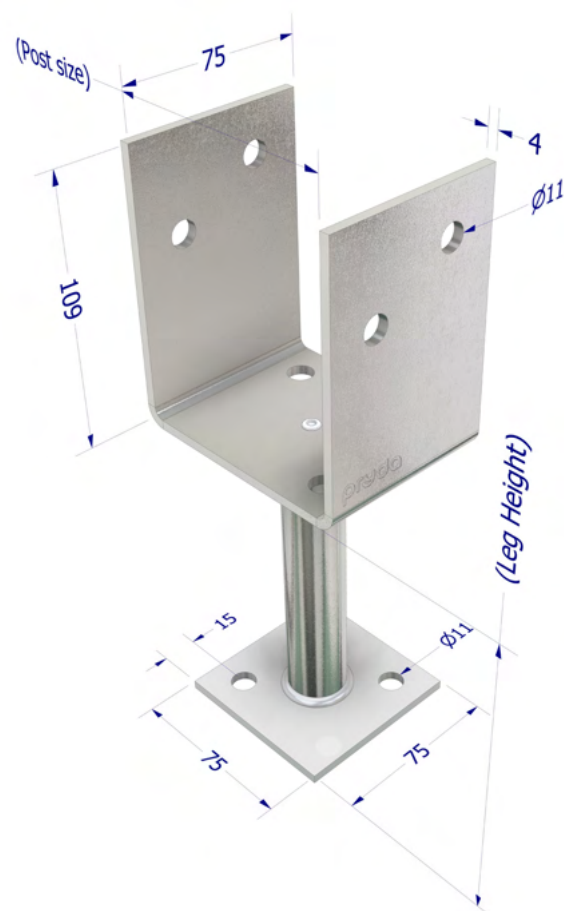
Primarily used for bolting to existing concrete. Can also be used for setting to concrete having a maximum 75mm clearance. Timber post to be installed central to the post anchor. It is the responsibility of the Project Engineer / Architect / Building practitioner / Trade person and end user to ensure 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
PSFS6575	G250 Steel, Hot Dip Galvanised (500 g/m²)	65	75	M10	10
PSFS6575/12				M12	
PSFS6590			90	M10	
PSFS6590/12				M12	
PSFS65100			100	M10	
PSFS65100/12				M12	
PSFS75100		75	100	M10	
PSFS13075		130	75		
PSFS13075/12				M12	
PSFS13090			90		
PSFS130100			100		
PSFS130115			115		
PSFS20075		200	75	M12	
PSFS20075/12			90		
PSFS20090				M10	
PSFS20090/12				M12	
PSFS200100				100	
PSFS200100/12			M12		
PSFS25090		250	90	M10	
PSFS30075		300	75	M12	
PSFS30075/12				M10	
PSFS30090			90	M12	
PSFS30090/12				M10	
PSFS300100			100	M12	
PSFS300100/12				M10	
PSFS300115			115	M12	
PSFS300115/12				M10	
PSFS300125			125	M12	
PSFS300125/12				M10	
PSFS45090		450	90	M12	
PSFS45090/12				M10	
PSFS450100			100	M12	
PSFS45100/12				M10	
PSFS60090/6		600	90	M12	
PSFS60090/12/6				M10	
PSFS600100/6			100	M12	
PSFS600100/12/6					

## DESIGN CAPACITIES

Limit State Design capacities ( $\Phi N_j$ ) 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		12.0	12.0	12.0	12.0	12.0	12.0	12.0
4 x M10 or M12 x 50mm coach screws	75	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	90	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	100	6.1	9.6	12.0	6.5	10.3	11.0	11.0
	115	5.7	9.0	12.0	6.1	9.8	10.0	10.0
	125	5.3	8.5	11.7	5.9	9.0	9.0	9.0

### NOTES:

- 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 75 x 75 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.
- 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 24 kN for 75mm stem height or less. For all other heights, to be designed by consulting project Engineer. As a guide, limit the axial compression load approximately 50% design capacity for all eccentrically loaded conditions

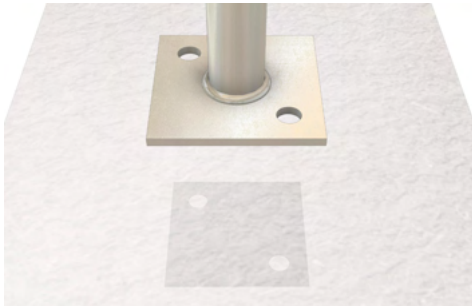
### IMPORTANT:

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

## INSTALLATION - FIXING TO DRY CONCRETE

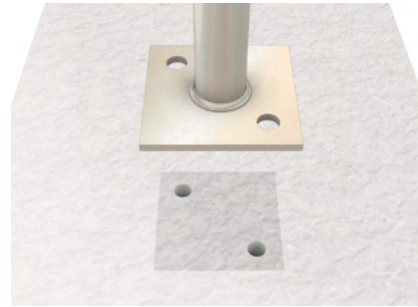
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt 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



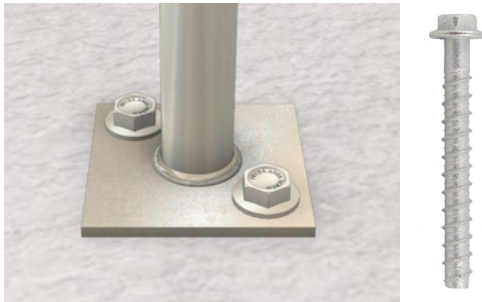
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

### 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 M10 Ramset galvanized AnkaScrew fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete slab.

### STEP 4



- Place timber post 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.
- For coach screws, drill pilot holes to the length of selected screws.

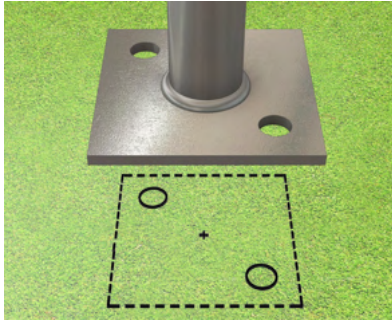
### STEP 6



- 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.

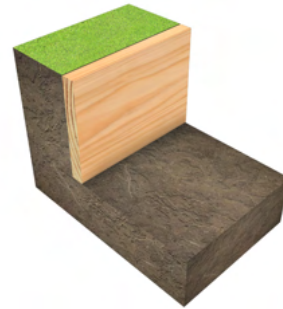
## INSTALLATION - FIXING TO WET CONCRETE

### STEP 1



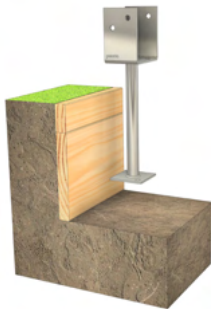
- Orientate anchor as required, measure and mark location of anchor positioning.
- Isolated footing should be restricted to stable soil. i.e. Class A and S foundation classification to AS2870.
- Ground assumed level.
- Seek advice from your consulting project Engineer.

### 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 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.
- 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 2x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.

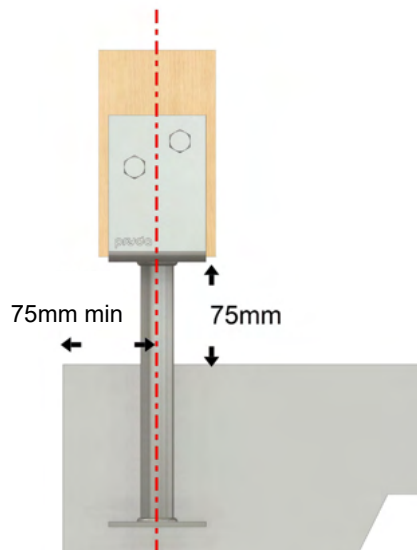
## INSTALLATION TIPS

### 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.

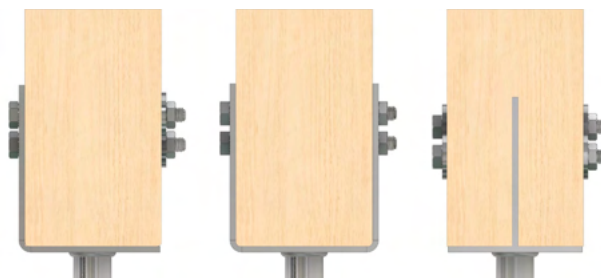
### TERMITE & BUSHFIRE MANAGEMENT

- 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.



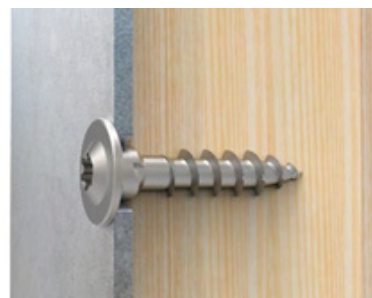
### BOLT LENGTH

- When using hex head bolts for fastening your post, it is recommended to use a length 20mm longer than post side.
- This accounts for the thickness of the saddle and allows for sufficient thread of the bolt.
- For example, a 110mm hex head bolt would suit a 90mm post anchor.



### 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™ WERCS™ 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](http://www.ramset.com.au)



**LOOKING FOR MORE DETAILS AND OTHER ANCHORS IN OUR RANGE?**

SEE OUR POST ANCHOR DESIGN GUIDE AVAILABLE AT [PRYDA.COM.AU](http://PRYDA.COM.AU)

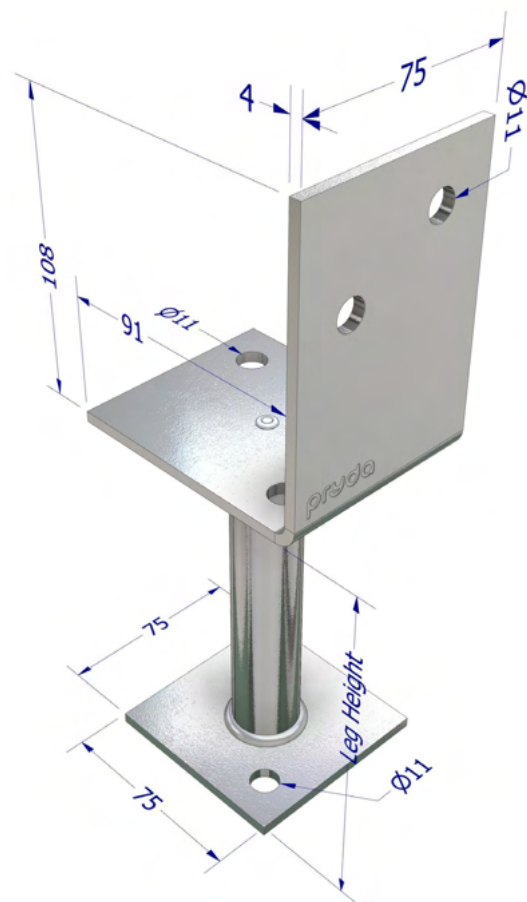


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**STRONG:** Hot dip galvanised coating after manufacture and made from 4mm steel

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

- 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/m²)	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 ( $\Phi N_j$ ) 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.

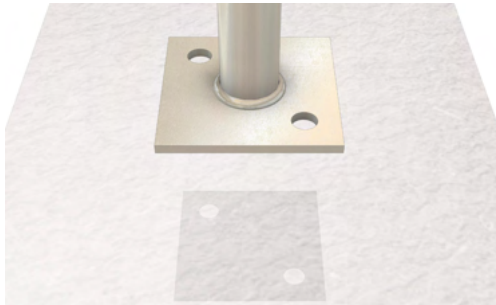
### IMPORTANT:

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

## INSTALLATION - FIXING TO DRY CONCRETE

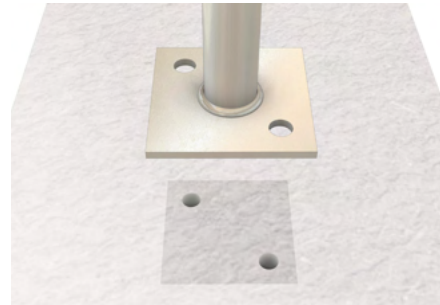
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset Galvanised AnkaScrew. Refer to bolt 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



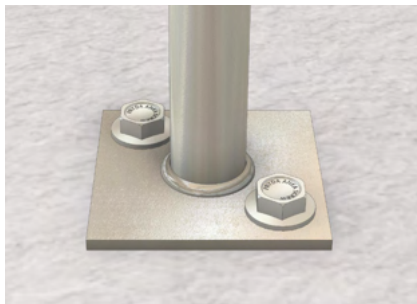
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

### 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 galvanized 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.

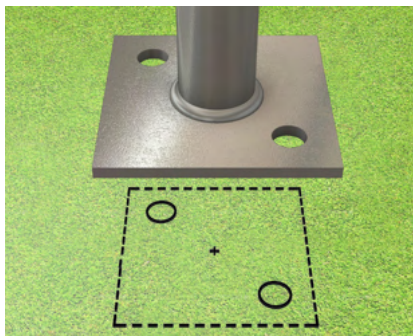
### STEP 6



- 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.

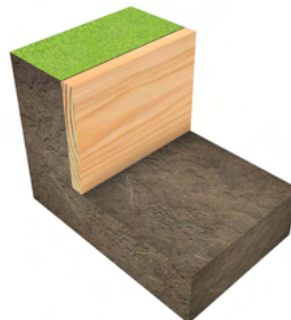
## INSTALLATION - FIXING TO WET CONCRETE

### STEP 1



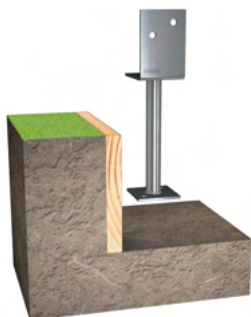
- Orientate anchor as required, measure and mark location of anchor positioning
- Isolated footing should be restricted to stable soil. i.e. Class A and S foundation classification to AS2870.
- Ground assumed level.
- Seek advice from your consulting project Engineer.

### STEP 2



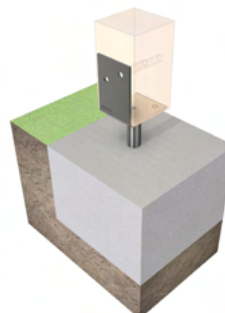
- Dig out ground and construct formwork to required depth as specified by your consulting Engineer.
- Allowance for 150mm stem embedment and 75mm clearance between underside of post to foundation surface.

### 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.

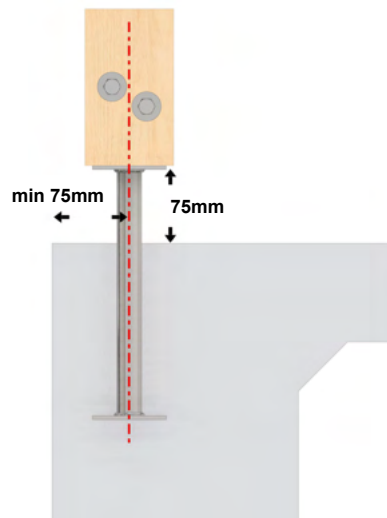
## INSTALLATION TIPS

### 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.

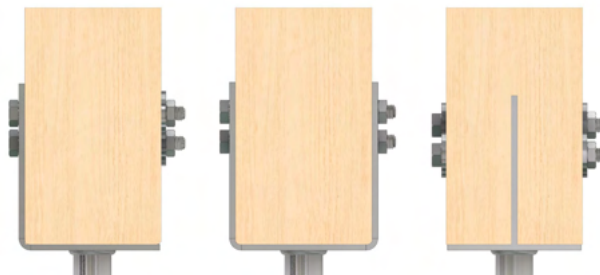
### TERMITE & BUSHFIRE MANAGEMENT

- 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.



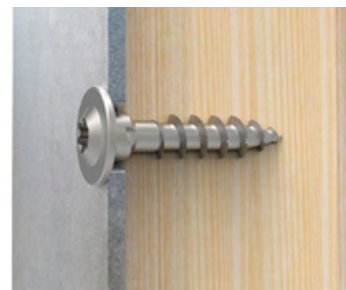
### BOLT LENGTH

- 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™ WERCS™ 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](http://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](http://PRYDA.COM.AU)

# HEAVY DUTY BOLT DOWN ANCHOR (PSBT)

## FEATURES AND BENEFITS

**ECONOMICAL:** Inexpensive solution for fixing posts to concrete

**STRONG:** Hot dip galvanised coating after manufacture and made from 5mm steel

**VERSATILE:** Range covers common post sizes

## SPECIFICATIONS

STEEL	G250
THICKNESS	5mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m <sup>2</sup> )
POST SIZES	75mm, 90mm, 100mm

## FASTENER REQUIRED

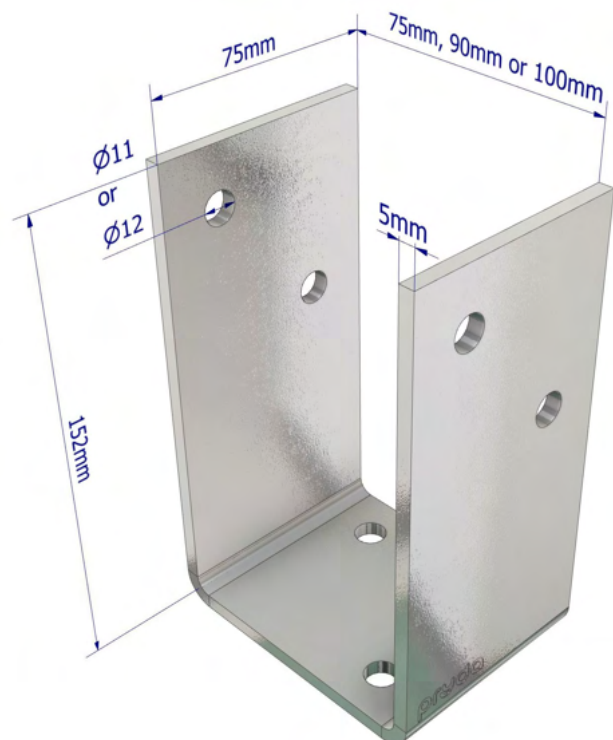
POST STIRRUP TO TIMBER POST	M10 or M12 4.6 grade galvanised hex head bolts
POST	M10 or M12 x 50mm 4.6 grade galvanised coach screws
POST BASE TO CONCRETE	M10 or M12 x 100mm galvanised Ramset Ankascrew™

Heavy duty 5mm thick U-stirrup bolt down anchor are ideal for directly anchoring post to concrete or approved support where no base clearance is required.

## AS1720 & AS4055 COMPLIANT



- Designed in accordance with Pryda testing and relevant Australian standards
- Engineering computations in accordance with the relevant Australian standards
- Not suitable for bushfire-prone or termite-prone areas



## RANGE

PRODUCT CODE	MATERIAL	POST SIZE (MM)	BOLT HOLE SIZE	QTY
PSBT75	G250 Steel Hot Dip Galvanised (500 g/m <sup>2</sup> )	75	M10	10
PSBT75/12			M12	
PSBT90		90	M10	10
PSBT90/12			M12	
PSBT100		100	M10	10
PSBT100/12			M12	

## DESIGN CAPACITIES

Limit State Design capacities ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

UPLIFT CAPACITIES FOR VARYING JOINT GROUPS								
FIXINGS	POST (MM)	J4	J3	J2	JD5	JD4	JD3	JD2
2 x M10 bolts		12.0	12.0	12.0	12.0	12.0	12.0	12.0
4 x M10 x 50mm coach screws	75	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	90	6.3	10.1	12.0	6.7	10.6	12.0	12.0
	100	6.1	9.6	12.0	6.5	10.3	12.0	12.0

### NOTES:

- 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 75 x 75 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:

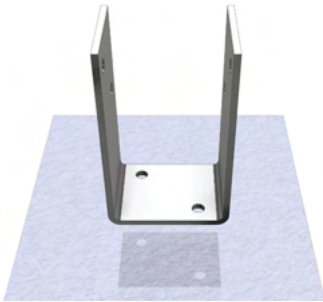
READ THIS DATASHEET IN CONJUNCTION WITH PRYDA POST ANCHORS GUIDE AND REFER TO GENERAL NOTES AND LIMITATIONS FOUND ON PAGES 4 TO 7.



## INSTALLATION

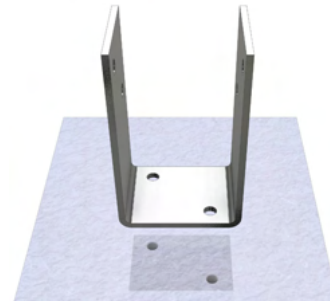
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deem fit for purpose. Consider the use of Ramset™ Galvanised AnkaScrew™. Refer to 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



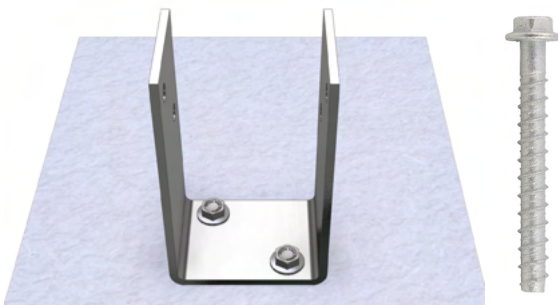
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete support assumed level.
- Seek advice from your consulting project Engineer.

### STEP 2



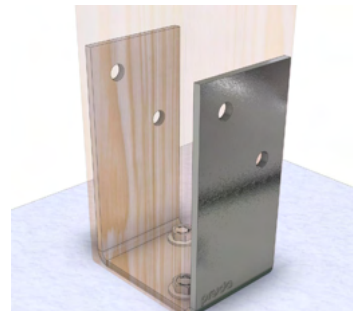
- Drill two holes at marked location to required depth for selected hold-down bolt. Refer to bolt manufacturer guidelines for recommended pre-drill hole size and depth. Suggested minimum screw embedment depth 100mm or greater (Section detail shown above).

### 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



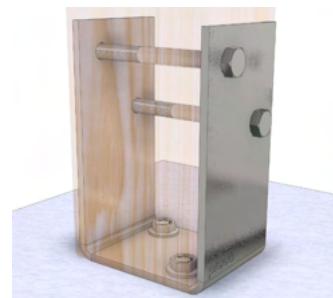
- Place timber post (90mmx90mm) upright into Post Anchor stirrup for direct bearing.
- Ensure to locate post central to support base and vertically plumb.

### STEP 5



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

### STEP 6



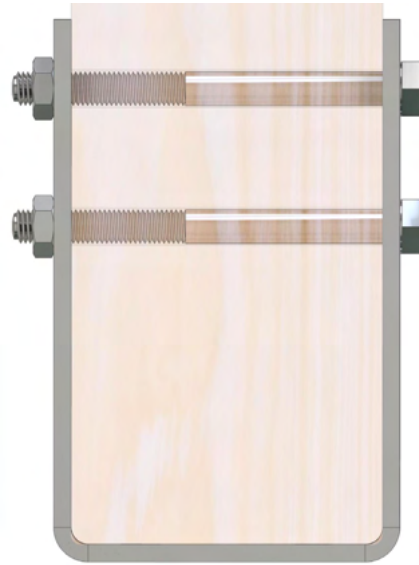
- Insert bolt through saddle and passing through timber post. A minimum of 2x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.



## 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.
- 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.

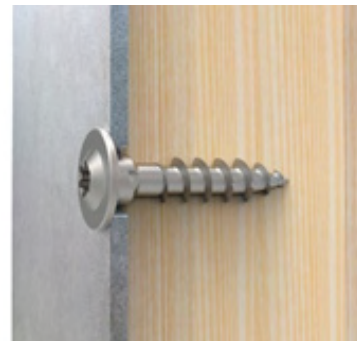


### BOLT LENGTH

- 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 & 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™ WERCS™ 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](http://www.ramset.com.au)



### LOOKING FOR MORE DETAILED DESIGN VALUES?

SEE OUR POST ANCHOR DESIGN GUIDE AVAILABLE AT [PRYDA.COM.AU](http://PRYDA.COM.AU)

# FULL 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

<b>STEEL</b>	G250
<b>THICKNESS</b>	4mm
<b>CORROSION RESISTANCE</b>	HDG500 (Hot Dipped Galvanised 500g/m <sup>2</sup> )
<b>STEM HEIGHT</b>	150mm, 200mm and 300mm
<b>POST SIZE</b>	90mm, 100mm

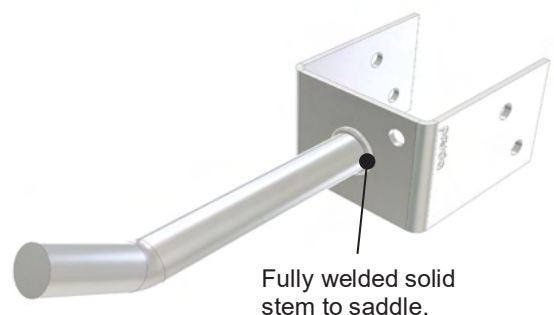
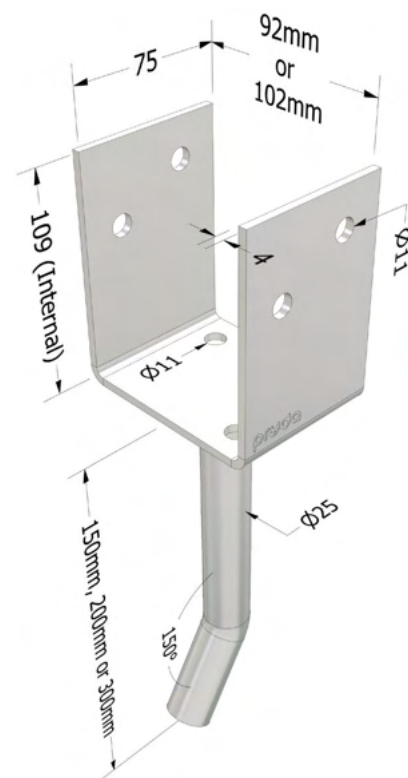
## FASTENER REQUIRED

<b>POST STIRRUP TO TIMBER POST</b>	M10 4.6 grade galvanised hex head bolts. M10 x 50mm 4.6 grade galvanised coach screws.
<b>POST BASE TO CONCRETE</b>	Nil – Set in to 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



## RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QTY
PSFW15090/6	G250 Steel Hot Dip Galvanised (500 g/m <sup>2</sup> )	150	90	M10	6
PSFW20090/6		200	90	M10	6
PSFW30090/4		300	90	M10	4
PSFW300100/4		300	100	M10	4

## DURABILITY

Pryda post anchors are Hot-dipped Galvanized to standard AS/NZS 4680. Routine inspection and clearing any debris around anchor are an integral part of the 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 ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

FIXINGS	POST (mm)	UPLIFT CAPACITIES FOR VARYING JOINT GROUPS (kN)		
		JD5	JD4	JD3
2 x M10 bolts	90	12 <sup>(4)</sup>	12 <sup>(4)</sup>	12 <sup>(4)</sup>
4 x M10 x 50mm coach screws		6.7 <sup>(4)</sup>	10.6 <sup>(4)</sup>	12 <sup>(4)</sup>

Notes:

- The design loads tabulated above require that:
  - the timber post must bear on the Post Anchor base.
  - all post sizes to be a minimum of 90 x 90 mm section UNO.
  - all anchors must be installed plumb.
  - for all bolt down anchors, support foundation must be flat, level, and supporting base plate fully.
- Select design capacity according to the standard used for determining the design loads.
- 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.
- The base concrete and fixings to the concrete must provide sufficient resistance to the uplift forces and dead +live loads. Uplift capacities 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.**
- Wind uplift capacities are based on the AS/NZS 1170.2 wind code.
- 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.
- 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.
- Post must be laterally restrained at top, installed centrally to anchor, and deemed to be "fit for purpose" by the project Engineer.
- It is recommended to slope the foundation away from the anchor to prevent water pooling at the base.
- Do not cover exposed base plate and stem with debris or obstacles that will facilitate collection of debris around anchor base.
- Maximum post height 3m and ultimate limit state wind speed not exceeding 50 m/s unless noted otherwise.
- 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

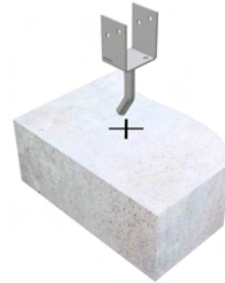
It is essential that the concrete design with selected solid stem length embedment exceeds the expected uplift load. Anchor foundation design to be determined by consulting project Engineer to suit design application, foundation type, and deem fit purpose. The design engineer should ensure the structural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

### STEP 1



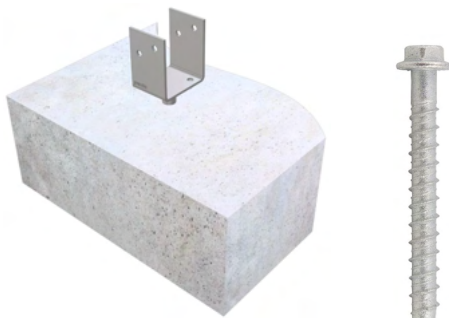
- Pour concrete as per concrete design by consulting project Engineer's details.
- Mark centre location of post position.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally.
- Seek advice from your consulting project Engineer.

### STEP 2



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

### STEP 3



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

### STEP 4



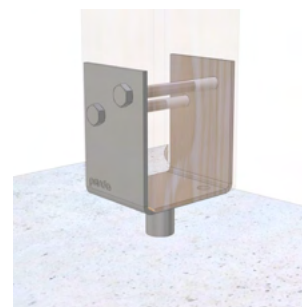
- Place timber post centrally into Post Anchor stirrup for direct bearing on stirrup base.
- Ensure both post anchor and post are vertically plumb.

### 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

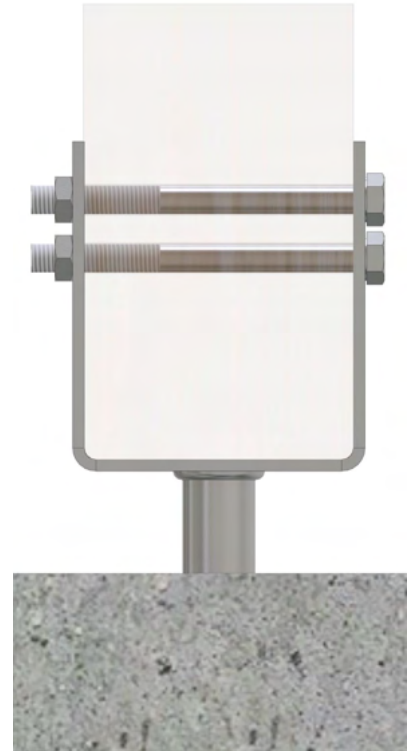


- Insert bolt through saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.

## INSTALLATION 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.
- 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 anchor that may facilitate water pooling and debris buildup.

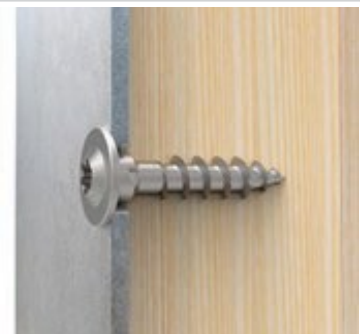


### BOLT LENGTH

- When using hex head bolts for fastening your post, it is recommended to use a length 20mm longer than 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 & 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



### LOOKING FOR MORE DETAILED DESIGN VALUES?

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

# 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

<b>STEEL</b>	G250
<b>THICKNESS</b>	4mm
<b>CORROSION RESISTANCE</b>	HDG500 (Hot Dipped Galvanised 500g/m <sup>2</sup> )
<b>STEM HEIGHT</b>	150mm and 300mm
<b>POST SIZE</b>	90mm

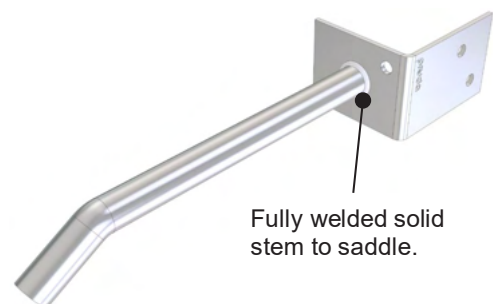
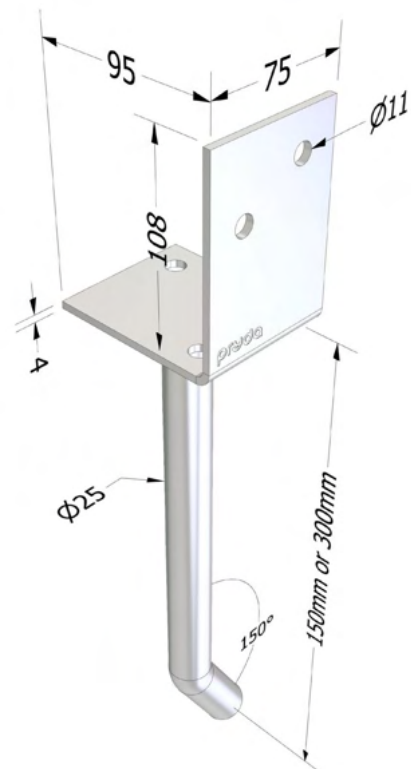
## FASTENER REQUIRED

<b>POST STIRRUP TO TIMBER POST</b>	M10 4.6 grade galvanised hex head bolts. M10 x 50mm 4.6 grade galvanised coach screws.
<b>POST BASE TO CONCRETE</b>	Nil – Set in to 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





## RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QTY
PSHW150/6	G250 Steel Hot Dip Galvanised (500 g/m <sup>2</sup> )	150	90	M10	6
PSHW300/6		300	90	M10	6

## DURABILITY

Pryda post anchors are Hot-dipped Galvanized to standard AS/NZS 4680. Routine inspection and clearing any debris around anchor are an integral part of the 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 ( $\Phi N_j$ ) for Pryda Standard Post Anchors resisting wind uplift loads are as follows:

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

Notes:

- The design loads tabulated above require that:
  - the timber post must bear on the Post Anchor base.
  - all post sizes to be a minimum of 90 x 90 mm section UNO.
  - all anchors must be installed plumb.
  - for all bolt down anchors, support foundation must be flat, level, and supporting base plate fully.
- Select design capacity according to the standard used for determining the design loads.
- 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.
- The base concrete and fixings to the concrete must provide sufficient resistance to the uplift forces and dead +live loads. Uplift capacities 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.**
- Wind uplift capacities are based on the AS/NZS 1170.2 wind code.
- 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.
- 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.
- Post must be laterally restrained at top, installed centrally to anchor, and deemed to be "fit for purpose" by the project Engineer.
- It is recommended to slope the foundation away from the anchor to prevent water pooling at the base.
- Do not cover exposed base plate and stem with debris or obstacles that will facilitate collection of debris around anchor base.
- Maximum post height 3m and ultimate limit state wind speed not exceeding 50 m/s unless noted otherwise.
- 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

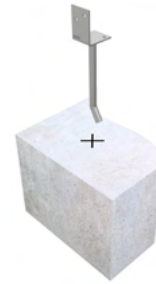
It is essential that the concrete design with selected solid stem length embedment exceeds the expected uplift load. Anchor foundation design to be determined by consulting project Engineer to suit design application, foundation type, and deem fit purpose. The design engineer should ensure the structural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

### STEP 1



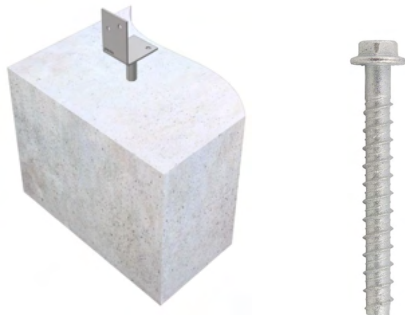
- Pour concrete as per concrete design by consulting project Engineer's details.
- Mark centre location of post position.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally.
- Seek advice from your consulting project Engineer.

### STEP 2



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

### STEP 3



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

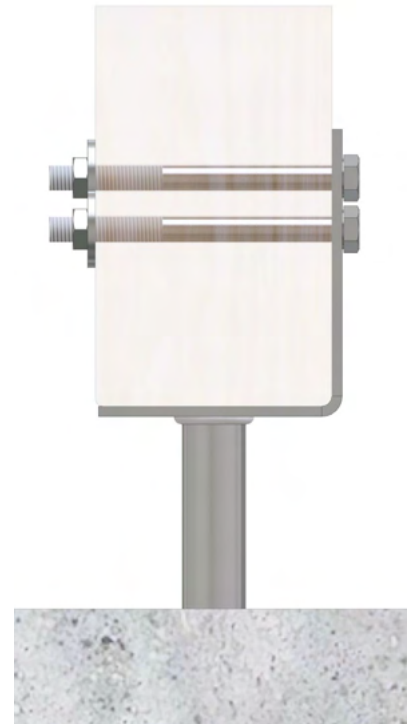


- Insert bolt through saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.

## INSTALLATION 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.
- 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 anchor that may facilitate water pooling and debris buildup.

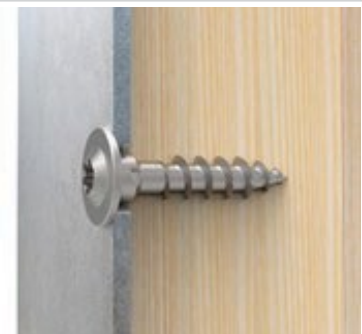


### BOLT LENGTH

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