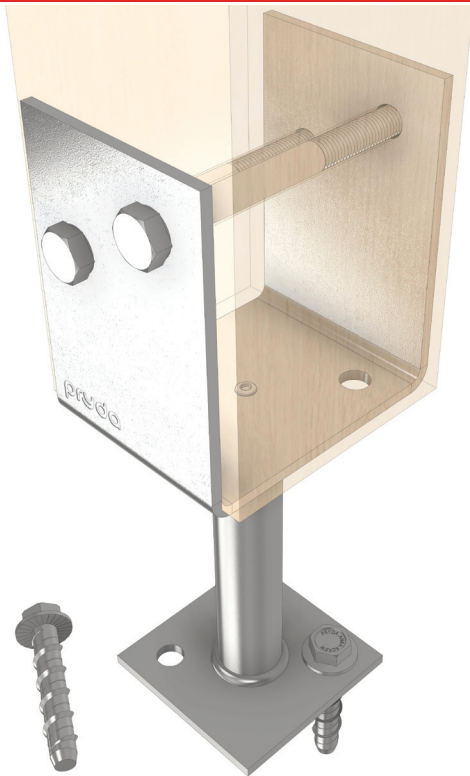




DESIGN GUIDE

NEW ZEALAND POST ANCHORS

2026

NEW ZEALAND POST ANCHORS DESIGN GUIDE

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Information contained in this product guide is subject to change. The latest updates are available from www.pryda.co.nz.

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:

STEEL:	Grade 250 - AS1397 Hot dip galvanised
SIZES:	To suit all widths of timber posts. A variety of leg lengths – refer to each post anchor type for more detail.
APPLICATION:	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/m²) 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 65mm to 600mm (b) stirrup widths 75, 90, 100, 115, 125mm (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 10mm (or 3/8") diameter galvanised bolts, except for the High Wind type (PSQ) which requires 12mm (or 1/2") diameter bolts. Where the bolt head or nut bears directly on the timber (Half Stirrup and Centre Fix types), a 30mm diameter by 3mm thick washer is required.
- Use galvanised coach screws- 50 x 10mm into side grain and 75 x 10mm 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.

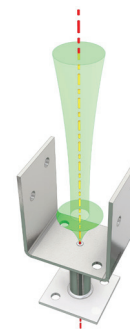
Typical application for all Pryda Post Anchors are for attached open verandah or similar structures for dwellings.

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

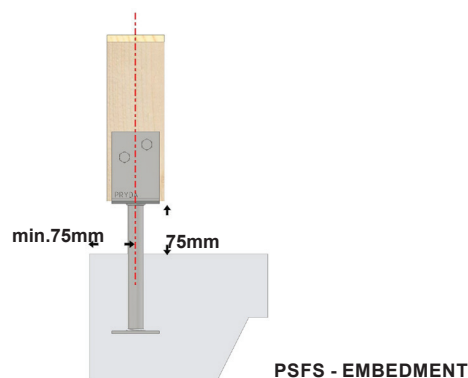
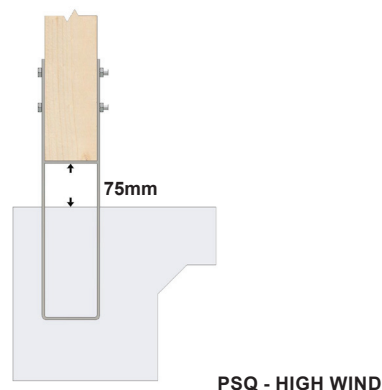
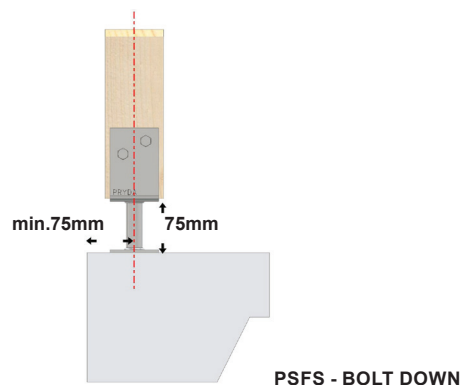
1. The design loads tabulated above require that:
 - (a) the timber post must bear on the Post Anchor base and
 - (b) all post sizes to be a minimum of 75 x 75mm section UNO
 - (c) all anchors must be installed plumb
 - (d) for all bolt down anchors, support foundation must be flat and level supporting 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/NZS1170.2 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, i.e. 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 75mm 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.

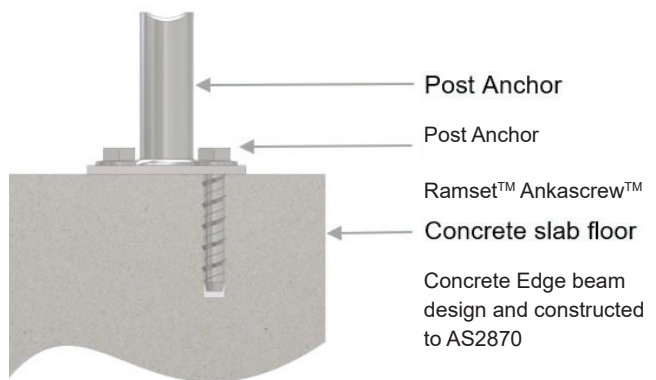
Pryda Post Anchor Concrete Fixing

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.

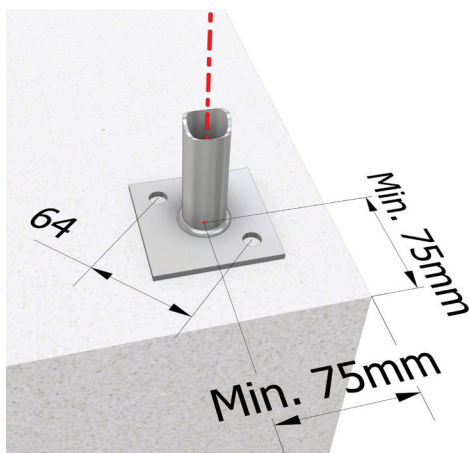
They are self-tapping and non-expansive. Refer to Ramset™ installation instructions on their web site: www.ramset.com.au or contact Ramset™ direct. Product information and design Specifications from Ramset™ data sheets takes precedence over information shown on this page.



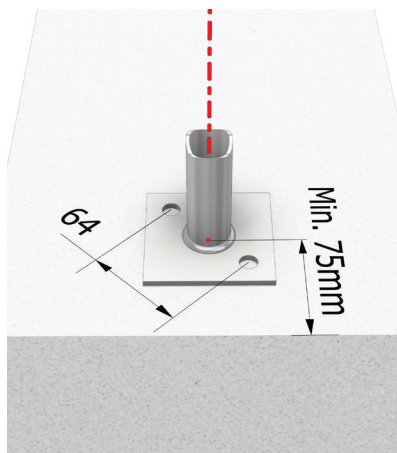
End user shall refer to selected fastener manufacturer for :

- 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

NEW ZEALAND ADJUSTABLE POST ANCHOR

Adjustable for post sizes up to 150mm.

FEATURES AND BENEFITS

ECONOMICAL: Inexpensive solution for fixing posts to concrete catering various post sizes from 90mm to 150mm.

EASY: No checking of post size is required.

STRONG: Hot Dipped Galvanised coating after manufacture and made from 4mm steel.

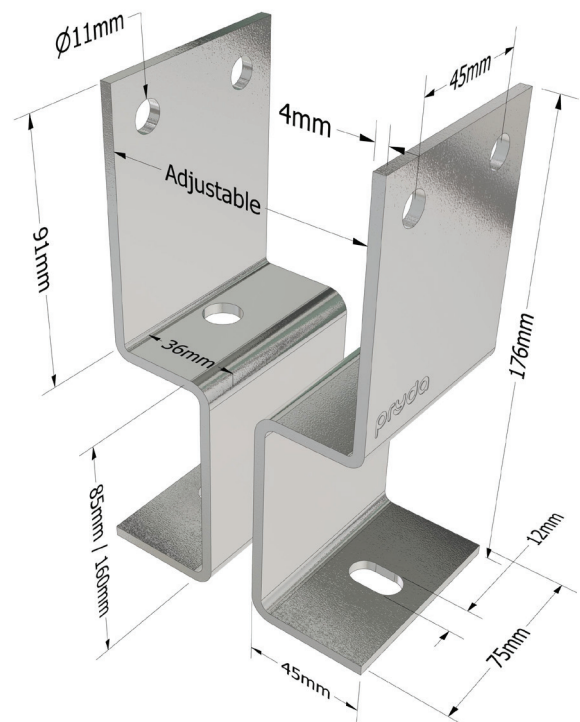
SPECIFICATIONS

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

FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 4.6 grade galvanised Hex Head Bolts
POST BASE TO CONCRETE	M10 galvanised Ramset™ AnkaScrew™

At the time of print, this product is NOT subject to any known warnings and bans found in Building Act 2004.



RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QUANTITY
PS85/6	G250 Steel Hot Dip Galvanised (500 g/m ²)	85	85	M10	6
PS160/6		160	160		

DURABILITY

Pryda Post Anchors are Hot Dipped Galvanised to standard AS/NZS4680, as reference in Table 4.2, NZS3604:2011. 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.

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

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

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

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

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.

- 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 90mm 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 the steel and timber post ONLY, these capacities may be limited by the anchorage to the supporting foundation. This should be verified by the Project Engineer or designer prior to installation.
- Wind uplift capacities are based on the AS/NZS1170.2 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, i.e. carports and gazebos, 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.

Pryda Adjustable Post Anchor is certified when used and installed in accordance with the product datasheet connection details. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS3604:2011 Table 4.2. Fastener material type shall match the selected Pryda product, i.e. galvanised fasteners with galvanised products, and stainless steel fasteners with stainless steel products.

DESIGN CAPACITIES - STEEL STRENGTH ONLY

Ultimate Limit State Design capacities (ΦN_c , ΦN_t) for Pryda Standard Post:

PRODUCT CODE	AXIAL COMPRESSION ΦN_c (kN)	AXIAL TENSION ΦN_t (kN)
PS85/6	24	8
PS160/6	12	

DESIGN CAPACITIES

Limit State Design capacities (ΦN_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 or 2 x M10 x 50mm coach screws	90 - 150	5.4	7.5	7.5

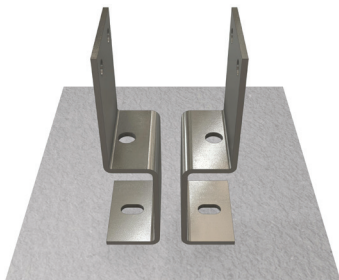
NOTES:

- 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 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/NZS1170.2 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.

INSTALLATION

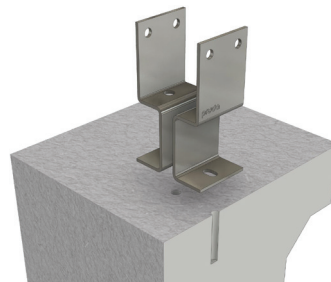
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deemed fit for purpose. Consider the use of Ramset™ galvanised AnkaScrew™. Refer 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 foundation support to be level horizontally.
- 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 Galvanised AnkaScrew™ fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete surface.

STEP 4



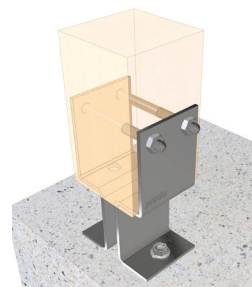
- Sealing the end grain of post before installing into anchor may be required (seek advice from project Engineer).
- Place timber post centrally into Post Anchor stirrup for direct bearing on stirrup base.
- Ensure both Post Anchor and post are vertically plumb.

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

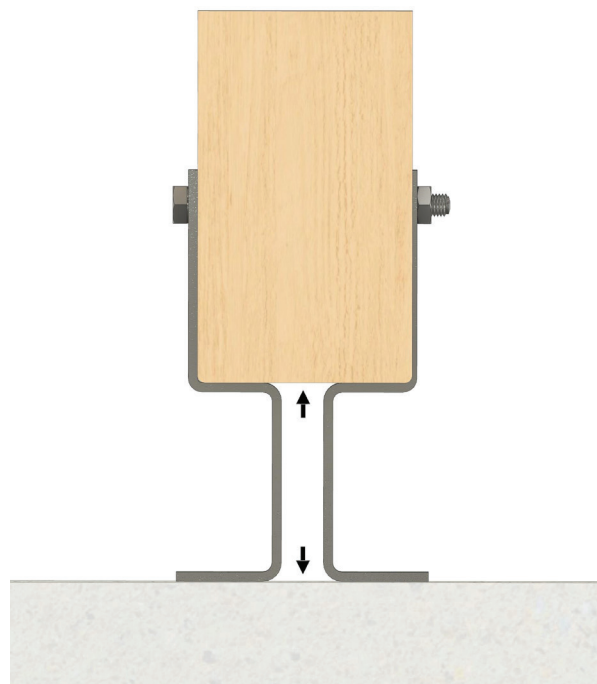


- Insert bolt through saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.

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 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.
- Tiling or paving around anchor is not recommended as this may result in a recess space around the anchor that may facilitate water pooling and debris buildup.

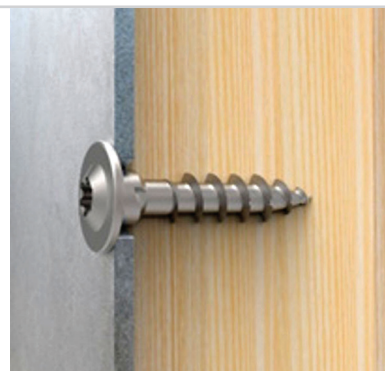


BOLT LENGTH

- When using Hex Head bolts for fastening your post, it is recommended to use a length 20mm longer than 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:
8G x 40mm, 20 pack – X998278
18G x 50mm, 20 pack – X998292



CONCRETE FASTENERS

- For fixing to existing concrete, Pryda recommends the use of M10 Hex Head Ramset™ AnkaScrews™. Having 75mm minimum length or greater.
- Alternatively, Ramset™ M10 galvanised Dynabolt™ can also be considered provided the connection is deemed "fit for purpose" by the project consulting Engineer.
- For detailed instructions on installation and design properties, see the Ramset™ website www.ramset.com.au

Contact details	
Manufacture location	Overseas
Legal and trading name of manufacturer	Shanghai Zenith International Trading Company Co LTD
Legal and trading name of importer	Pryda New Zealand - A division of ITW New Zealand
Importer address for service	23-29 Poland Road, Wairau Valley, Auckland, 0627, New Zealand
Importer website	Pryda.co.nz
Importer email	info@prydaanz.com
Importer phone number	0800 88 22 44
Importer NZBN	9429039833129

NEW ZEALAND BOLT DOWN POST ANCHOR

Low profile for bolting to existing concrete.

FEATURES AND BENEFITS

ECONOMICAL: Inexpensive solution for fixing posts to concrete.

EASY: Minimalistic profile complementing most design and can be installed easily with 4 bolts.

STRONG: Hot Dipped Galvanised coating after manufacture and made from 4mm steel.

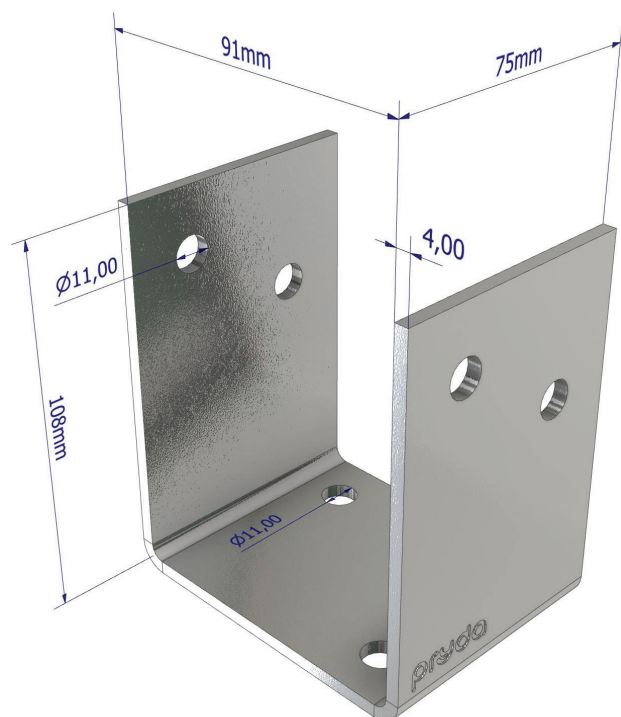
SPECIFICATIONS

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

FASTENER REQUIRED

POST STIRRUP TO TIMBER POST	M10 4.6 grade galvanised Hex Head Bolts
	M10 x 50mm 4.6 grade galvanised Coach Screws
POST BASE TO CONCRETE	M10 galvanised Ramset™ AnkaScrew™

At the time of print, this product is NOT subject to any known warnings and bans found in Building Act 2004.



RANGE

PRODUCT CODE	MATERIAL	POST SIZE (mm)	BOLT HOLE SIZE	QTY
PSBD90/6	G250 Steel Hot Dipped Galvanised (500 g/m ²)	90	M10	6

DURABILITY

Pryda Post Anchors are Hot Dipped Galvanised to standard AS/NZS4680, as reference in Table 4.2, NZS3604:2011. 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.

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

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

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

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

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.

- 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 90mm 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 the steel and timber post ONLY, these capacities may be limited by the anchorage to the supporting foundation. This should be verified by the Project Engineer or designer prior to installation.
- Wind uplift capacities are based on the AS/NZS1170.2 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, .i.e. carports and gazebos, 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.

Pryda Bolt Down Post Anchor is certified when used and installed in accordance with the product datasheet connection details. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS3604:2011 Table 4.2. Fastener material type shall match the selected Pryda product, i.e. galvanised fasteners with galvanised products, and stainless steel fasteners with stainless steel products.

DESIGN CAPACITIES

Limit State Design capacities (ΦN_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	12.0	12.0	12.0
4 x M10 x 50mm coach screws		6.7	10.6	12.0

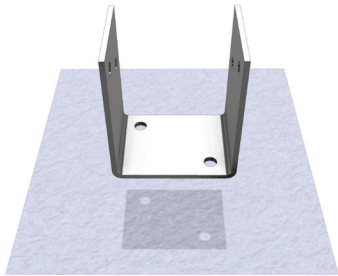
Notes:

1. 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.
2. Select design capacity according to the standard used for determining the design loads.
3. Specified capacities are for concentric vertical load transfer only.
4. The base concrete and fixings to the concrete must provide sufficient resistance to the uplift forces and dead + live loads when embedding into concrete.
5. Wind uplift capacities are based on the AS/NZS1170:2002 code only, using $k_1=1.14$.
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 an Engineer.
7. Post must be laterally restrained at top.
8. Post Anchors are not intended to be used for cantilever posts and balustrades without pre-approval from an Engineer.

INSTALLATION

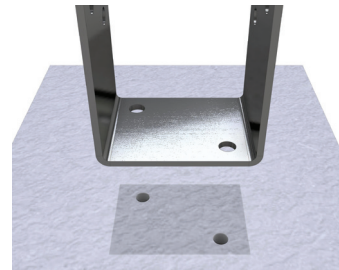
It is essential that the capacity of the fasteners to foundation connection exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application, foundation type, and deemed "fit for purpose". Consider the 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 can support the intended design loads.

STEP 1



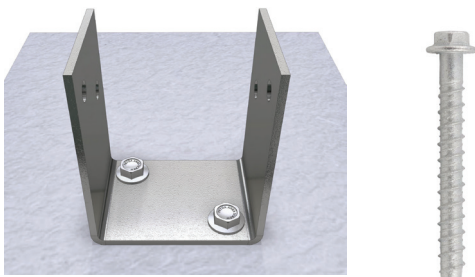
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally.
- Seek advice from your consulting project Engineer.

STEP 2



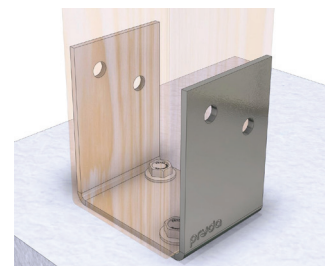
- Drill two holes at marked location to required depth for selected hold-down bolt. Refer to bolt manufacturer guidelines for recommended pre-drill hole size and depth. Suggested minimum screw embedment depth 100mm or greater (section detail shown above).

STEP 3



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

STEP 4



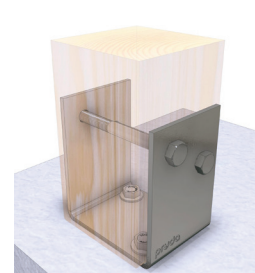
- Recess sections directly over bolt heads for direct bearing of post end to anchor base.
- Seal the end grain of post end before installing into anchor may be required (seek advice from project Engineer).
- Place timber post centrally into Post Anchor stirrup for direct bearing on stirrup base.
- Ensure 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

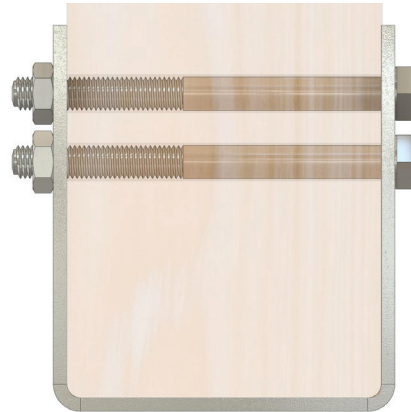


- Insert bolt through saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install nut and securely fasten.

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 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.
- Tiling or paving around anchor is not recommended as this may result in a recess space around the anchor that may facilitate water pooling and debris buildup.

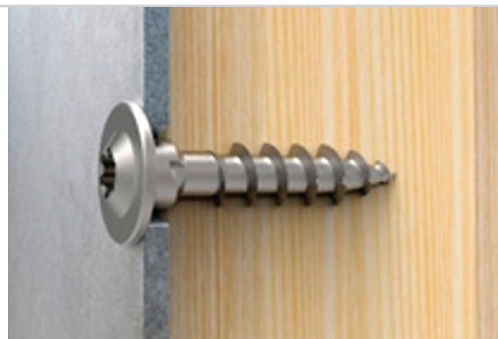


BOLT LENGTH

- When using Hex Head Bolts for fastening your post, it is recommended to use a length 20mm longer than 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 recommends the use of M10 Hex Head Ramset™ AnkaScrews™. Having 75mm minimum length or greater.
- Alternatively, Ramset™ M10 galvanised Dynabolt™ can also be considered provided the connection is deemed “fit for purpose” by the project consulting Engineer.
- For detailed instructions on installation and design properties, see the Ramset™ website www.ramset.com.au

Contact details	
Manufacture location	Overseas
Legal and trading name of manufacturer	Shanghai Zenith International Trading Company Co LTD
Legal and trading name of importer	Pryda New Zealand - A Division of ITW New Zealand
Importer address for service	23-29 Poland Road, Wairau Valley, Auckland, 0627, New Zealand
Importer website	Pryda.co.nz
Importer email	info@prydaanz.com
Importer phone number	0800 88 22 44
Importer NZBN	9429039833129

NEW ZEALAND CENTRE FIX POST ANCHOR

Off ground post support with
concealed centre blade.

FEATURES AND BENEFITS

ECONOMICAL: Light weight design having a central blade allows for a hidden appearance after installation.

EASY: Off ground stem with single centre blade anchor. Can be installed easily with 4 bolts.

STRONG: Hot Dipped Galvanised coating after manufacture and made from 4mm steel.

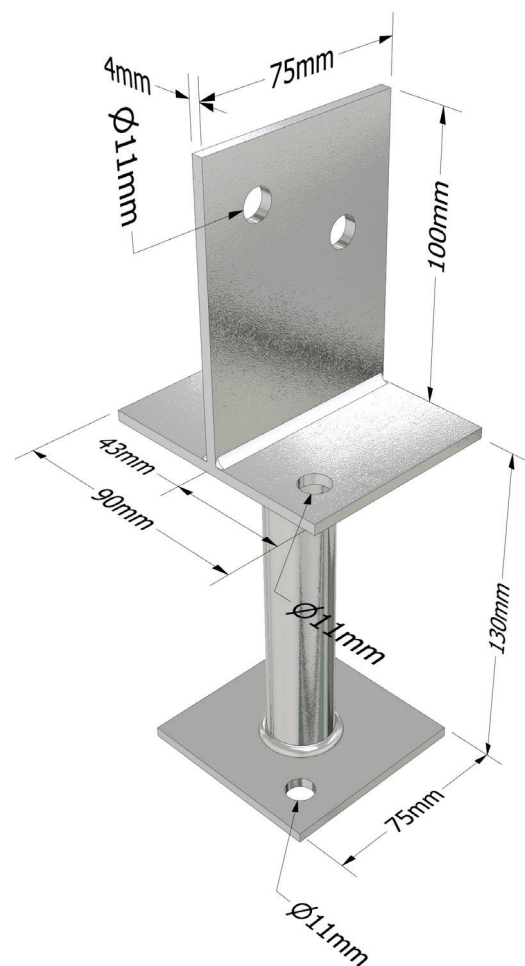
SPECIFICATIONS

STEEL	G250
STIRRUP THICKNESS	4mm
CORROSION RESISTANCE	Hot dipped galvanised (500 g/m ²)
STEM HEIGHT	130mm
POST SIZE	90mm

FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 4.6 grade galvanised Hex Head Bolts
POST BASE TO CONCRETE	M10 galvanised Ramset™ AnkaScrew™

At the time of print, this product is NOT subject to any known warnings and bans found in Building Act 2004.



RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QUANTITY
PSCF130/6	G250 Steel, Hot Dip Galvanised (500 g/m ²)	130	90	M10	6

DURABILITY

Pryda Post Anchors are Hot Dipped Galvanised to standard AS/NZS4680, as reference in Table 4.2, NZS3604:2011. 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.

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

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

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

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

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.

- 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 90mm 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 the steel and timber post ONLY, these capacities may be limited by the anchorage to the supporting foundation. This should be verified by the Project Engineer or designer prior to installation.
- Wind uplift capacities are based on the AS/NZS1170.2 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, i.e. carports and gazebos, 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.

Pryda Bolt Down Post Anchor is certified when used and installed in accordance with the product datasheet connection details. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS3604:2011 Table 4.2. Fastener material type shall match the selected Pryda product, i.e. galvanised fasteners with galvanised products, and stainless steel fasteners with stainless steel products.

DESIGN CAPACITIES

Limit State Design capacities (ΦN_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	10.8	11	11

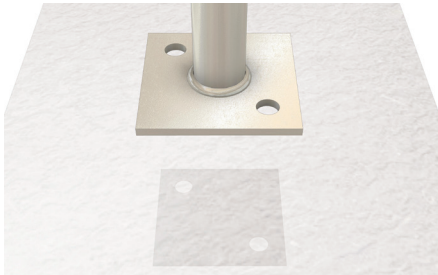
NOTES:

- 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 90mm 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/NZS1170.2 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 .i.e. 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.
- 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. As a guide, limit the axial compression load approximately 50% design capacity for all eccentrically loaded conditions.
- 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

INSTALLATION - BOLT DOWN

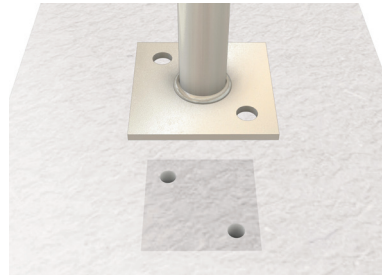
It is essential that the capacity of the fasteners to foundation connection exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application, foundation type, and deemed "fit for purpose". Consider the 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 can support the intended design loads.

STEP 1



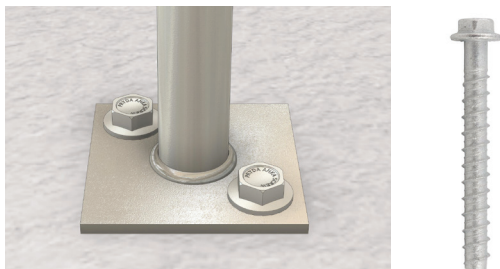
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally.
- Seek advice from your consulting project Engineer.

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



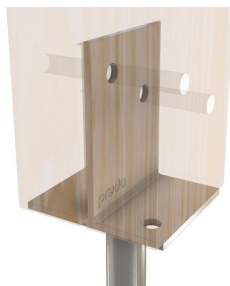
- Position Post Anchor and insert M10 Ramset™ galvanised AnkaScrew™ fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete surface.

STEP 4



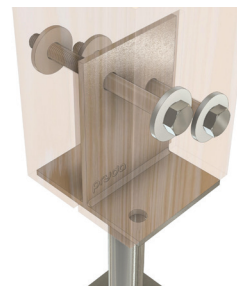
- Use a circular saw to cut a 4mm slot through the centre of the post to a depth of 100mm.
- Mark side holes using anchor centre fix flange as stencil to mark post bolted hole's location.
- Place timber post centrally into Post Anchor stirrup for direct bearing on stirrup base.
- Ensure both Post Anchor and post are vertically plumb.

STEP 5



- Drill through post using saddle holes. Ensure drill through holes are horizontally level and perpendicular to saddle.

STEP 6



- Insert bolt through washer, saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install washer, nut, and securely fasten (Washer: min. 30 x 3mm at both ends of each bolt).

INSTALLATION - WET CONCRETE EMBEDMENT

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

STEP 1



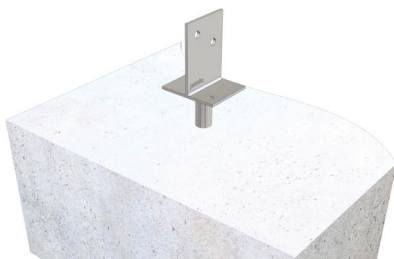
- Pour concrete as per concrete design by consulting project Engineer's details.
- Mark centre location of post position.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally. Slight slope will be required around anchor location to ensure water does not pool around stem and ground water always drain away from stem.
- Seek advice from your consulting project Engineer.

STEP 2



- While concrete is wet, orientate selected anchor as required over mark and firmly insert 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



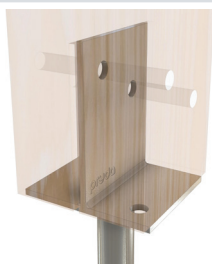
- Ensure post anchor is vertically plumb.
- Leave anchor until recommended concrete curing time have lapsed.
- Clearance between anchor stirrup base and concrete, minimum 25mm unless approved by Builder's consulting project Engineer.

STEP 4



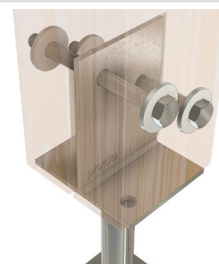
- Use a circular saw to cut a 4mm slot through the centre of the post to a depth of 100mm.
- Mark side holes using anchor centre fix flange as stencil to mark post bolted holes location.
- Place timber post centrally into Post Anchor stirrup for direct bearing on stirrup base.
- Ensure both Post Anchor and post are vertically plumb.

STEP 5



- Drill through post using saddle holes. Ensure drill through holes are horizontally level and perpendicular to saddle.

STEP 6



- Insert bolt through washer, saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install washer, nut, and securely fasten (Washer: min. 30 x 3mm at both ends of each bolt).

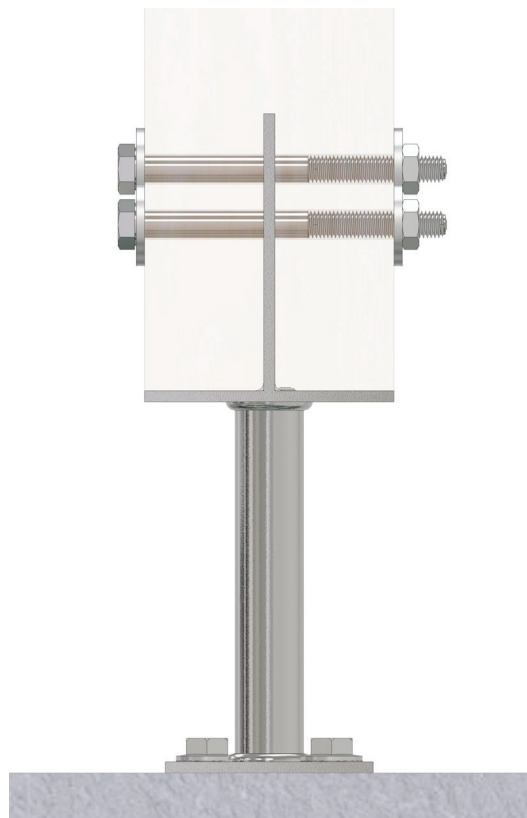
INSTALLATION TIPS

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 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.
- Tiling or paving around anchor is not recommended as this may result in a recess space around the anchor that may facilitate water pooling and debris buildup.

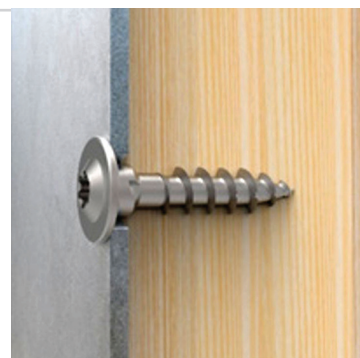
BOLT LENGTH

- When using hex head bolts for fastening your post, it is recommended to use a length 20mm longer than 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 recommends the use of M10 Hex Head Ramset™ AnkaScrew™. Having 75mm minimum length or greater.
- Alternatively, Ramset™ M10 galvanised Dynabolt™ can also be considered provided the connection is deemed fit for purpose by the project consulting Engineer.
- For detailed instructions on installation and design properties, see the Ramset™ website www.ramset.com.au

Contact details	
Manufacture location	Overseas
Legal and trading name of manufacturer	Shanghai Zenith International Trading Company Co LTD
Legal and trading name of importer	Pryda New Zealand - A Division of ITW New Zealand
Importer address for service	23-29 Poland Road, Wairau Valley, Auckland, 0627, New Zealand
Importer website	Pryda.co.nz
Importer email	info@prydaanz.com
Importer phone number	0800 88 22 44
Importer NZBN	9429039833129

NEW ZEALAND FULL STIRRUP POST ANCHOR

Off ground post anchor support ensures the post end is protected against water ingress and provides easy inspection for termites.

FEATURES AND BENEFITS

ECONOMICAL: Light weight design with high load support.

EASY: Off ground stem with full U stirrup support. Can be installed easily with 4 bolts.

STRONG: Hot Dipped Galvanised coating after manufacture and made from 4mm steel.

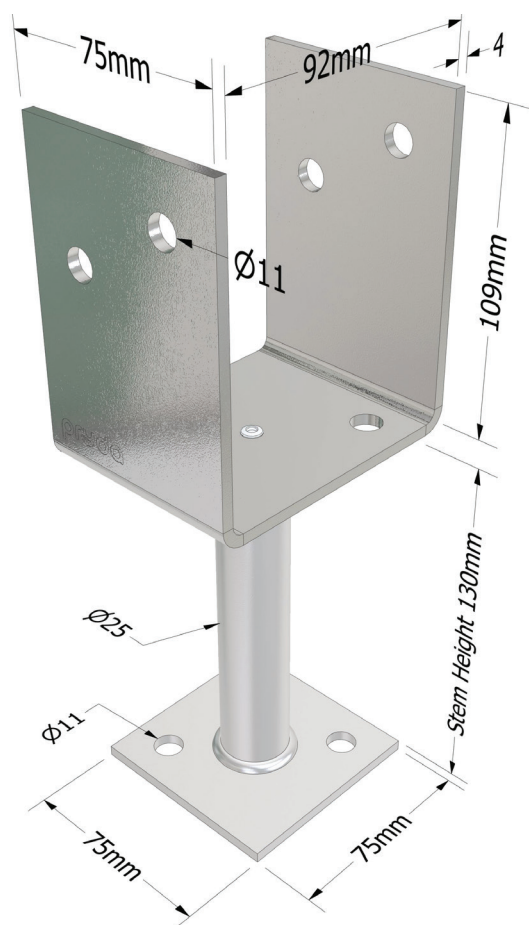
SPECIFICATIONS

STEEL	G250
THICKNESS	4mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m ²)
STEM HEIGHT	130mm
POST SIZES	90mm

FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 4.6 grade galvanised Hex Head Bolts M10 x 50mm 4.6 grade galvanised Coach Screws
POST BASE TO CONCRETE	M10 galvanised Ramset™ AnkaScrew™

At the time of print, this product is NOT subject to any known warnings and bans found in Building Act 2004.



RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QUANTITY
PSFS13090/6	G250 Steel, Hot Dip Galvanised (500 g/m ²)	130	90	M10	6

DURABILITY

Pryda Post Anchors are Hot Dipped Galvanised to standard AS/NZS4680, as reference in Table 4.2, NZS3604:2011. 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.

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

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

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

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

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.

- 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 90mm 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 the steel and timber post ONLY, these capacities may be limited by the anchorage to the supporting foundation. This should be verified by the Project Engineer or designer prior to installation.
- Wind uplift capacities are based on the AS/NZS1170.2 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, i.e. carports and gazebos, 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.

Pryda Bolt Down Post Anchor is certified when used and installed in accordance with the product datasheet connection details. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS3604:2011 Table 4.2. Fastener material type shall match the selected Pryda product, i.e. galvanised fasteners with galvanised products, and stainless steel fasteners with stainless steel products.

DESIGN CAPACITIES

Limit State Design capacities (ΦN_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	11	11	11
4 x M10 x 50mm coach screws		6.3	9.9	11

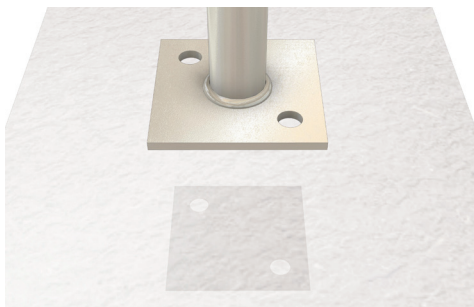
NOTES:

- 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 90mm 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/NZS1170.2 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 .i.e. 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.
- 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. As a guide, limit the axial compression load approximately 50% design capacity for all eccentrically loaded conditions.
- 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

INSTALLATION - BOLT DOWN

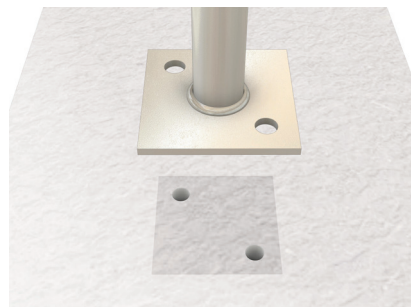
It is essential that the capacity of this fastener exceeds the expected uplift load. Fastener bolt selection connecting anchor to foundation to be determined by consulting project Engineer to suit design application and deemed fit for purpose. Consider the use of Ramset™ galvanised AnkaScrew™. Refer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



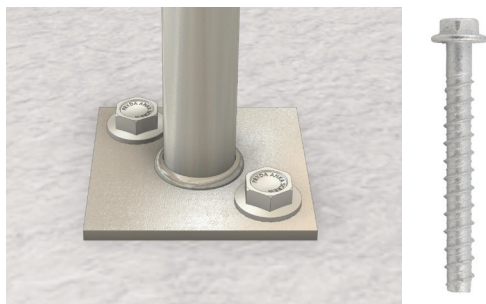
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally.
- Seek advice from your consulting project Engineer.

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



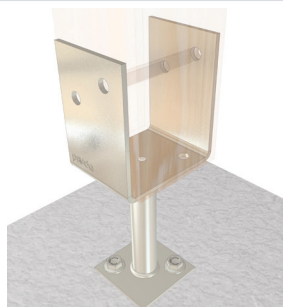
- Position Post Anchor and insert M10 Ramset™ galvanised AnkaScrew™ fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete surface.

STEP 4



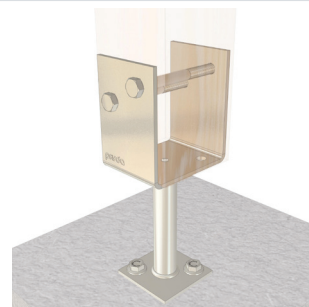
- Place timber post upright into Post Anchor stirrup for direct bearing on stirrup base.
- Ensure both Post Anchor and post are vertically plumb.

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 - WET CONCRETE EMBEDMENT

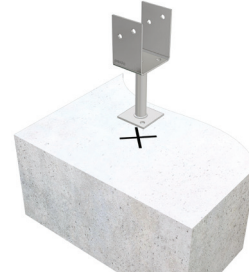
It is essential that the concrete design with selected stem length embedment exceeds the expected uplift load. Anchor to foundation design to be determined by consulting project Engineer to suit design application, foundation type, and deemed fit for purpose. The design engineer should ensure the structural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

STEP 1



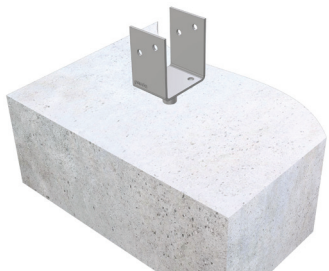
- Pour concrete as per concrete design by consulting project Engineer's details.
- Mark centre location of post position.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally. Slight slope will be required around anchor location to ensure water does not pool around stem and ground water always drain away from stem.
- Seek advice from your consulting project Engineer.

STEP 2



- While concrete is wet, orientate selected anchor as required over mark and firmly insert 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.
- Clearance between anchor stirrup base and concrete, minimum 25mm unless approved by Builder's consulting project Engineer.

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 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.
- Tiling or paving around anchor is not recommended as this may result in a recess space around the anchor that may facilitate water pooling and debris buildup.

BOLT LENGTH

- When using Hex Head Bolts for fastening your post, it is recommended to use a length 20mm longer than 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 recommends the use of M10 Hex Head Ramset™ AnkaScrew™. Having 75mm minimum length or greater.
- Alternatively, Ramset™ M10 galvanised Dynabolt™ can also be considered provided the connection is deemed “fit for purpose” by the project consulting Engineer.
- For detailed instructions on installation and design properties, see the Ramset™ website www.ramset.com.au

Contact details	
Manufacture location	Overseas
Legal and trading name of manufacturer	Shanghai Zenith International Trading Company Co LTD
Legal and trading name of importer	Pryda New Zealand - A Division of ITW New Zealand
Importer address for service	23-29 Poland Road, Wairau Valley, Auckland, 0627, New Zealand
Importer website	Pryda.co.nz
Importer email	info@prydaanz.com
Importer phone number	0800 88 22 44
Importer NZBN	9429039833129

NEW ZEALAND HALF STIRRUP POST ANCHOR

Off ground post support ideally suited to uses where the post is located against a wall or step and can only be bolted to one side.

FEATURES AND BENEFITS

ECONOMICAL: Light weight design having a single side flange for greater installation flexibility.

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

STRONG: Hot Dipped Galvanised coating after manufacture and made from 4mm steel.

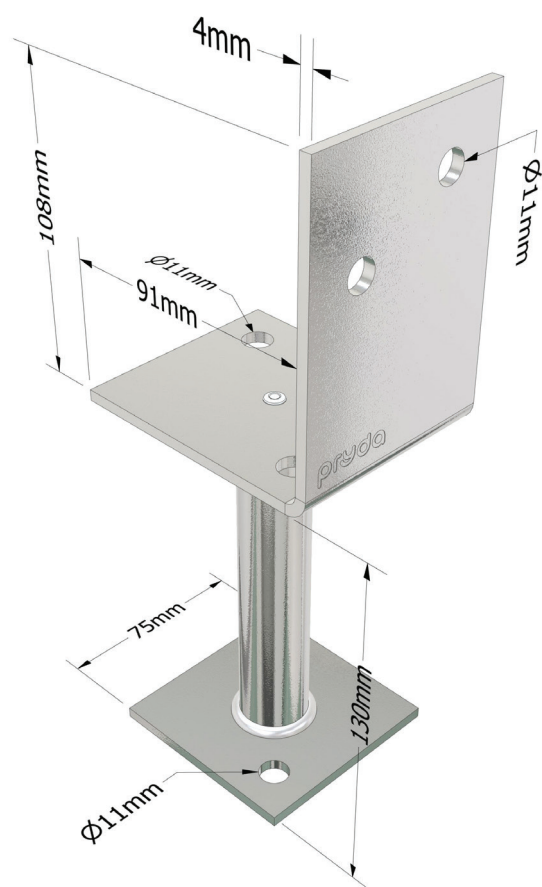
SPECIFICATIONS

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

FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M10 4.6 grade galvanised Hex Head Bolts
POST BASE TO CONCRETE	M10 galvanised Ramset™ AnkaScrew™

At the time of print, this product is NOT subject to any known warnings and bans found in Building Act 2004.



RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QUANTITY
PSHS130/6	G250 Steel, Hot Dip Galvanised (500 g/m ²)	130	90	M10	6

DURABILITY

Pryda Post Anchors are Hot Dipped Galvanised to standard AS/NZS4680, as reference in Table 4.2, NZS3604:2011. 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.

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

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

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

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

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.

- 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 90mm 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 the steel and timber post ONLY, these capacities may be limited by the anchorage to the supporting foundation. This should be verified by the Project Engineer or designer prior to installation.
- Wind uplift capacities are based on the AS/NZS1170.2 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, i.e. carports and gazebos, 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.

Pryda Bolt Down Post Anchor is certified when used and installed in accordance with the product datasheet connection details. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS3604:2011 Table 4.2. Fastener material type shall match the selected Pryda product, i.e. galvanised fasteners with galvanised products, and stainless steel fasteners with stainless steel products.

DESIGN CAPACITIES

Limit State Design capacities (ΦN_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	4.9	4.9	4.9

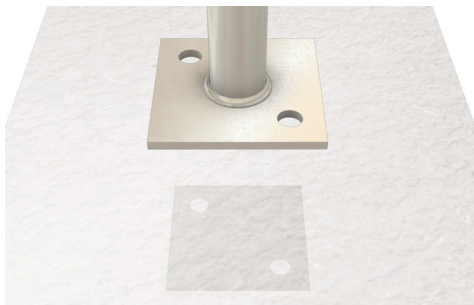
NOTES:

- 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 90mm 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/NZS1170.2 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 .i.e. 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.
- 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. As a guide, limit the axial compression load approximately 50% design capacity for all eccentrically loaded conditions.
- 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.

INSTALLATION - BOLT DOWN

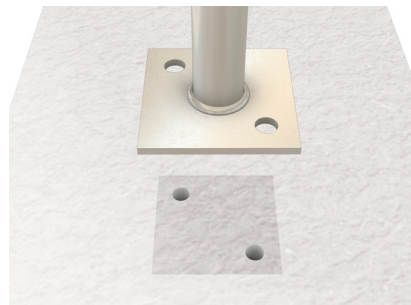
It is essential that the concrete design with selected stem length embedment exceeds the expected uplift load. Anchor to foundation design to be determined by consulting project Engineer to suit design application, foundation type, and deemed fit for purpose. The design engineer should ensure the structural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

STEP 1



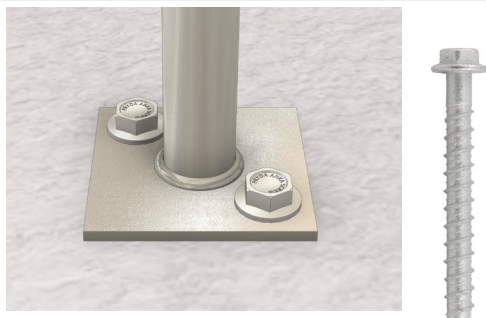
- Orientate anchor as required, measure and mark location of base holes using selected anchor base as stencil.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally.
- Seek advice from your consulting project Engineer.

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™ galvanised AnkaScrew™ fastener.
- Tighten fastener to pull down Post Anchor base firmly onto the concrete surface.

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.

STEP 6

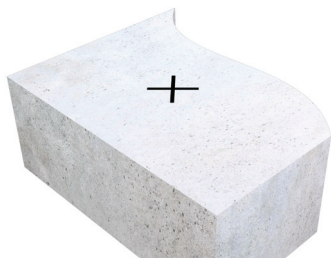


- Insert bolt through washer, saddle and passing through timber post. A minimum of 2 x thread pitch should extend beyond the outward surface of the nut.
- Install washer to timber interface only (30mm dis. x 3mm washer).
- Install nut and securely fasten.

INSTALLATION - WET CONCRETE EMBEDMENT

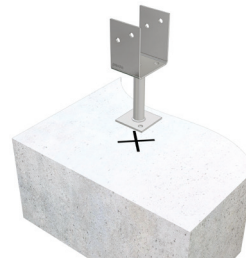
It is essential that the concrete design with selected stem length embedment exceeds the expected uplift load. Anchor to foundation design to be determined by consulting project Engineer to suit design application, foundation type, and deemed fit for purpose. The design engineer should ensure the structural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

STEP 1



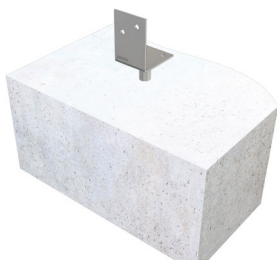
- Pour concrete as per concrete design by consulting project Engineer's details.
- Mark centre location of post position.
- Ensure adequate concrete edge distance set back.
- Concrete foundation support to be level horizontally. Slight slope will be required around anchor location to ensure water does not pool around stem and ground water always drain away from stem.
- Seek advice from your consulting project Engineer.

STEP 2



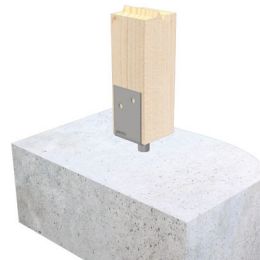
- While concrete is wet, orientate selected anchor as required over mark and firmly insert stem in to concrete.
- Embed selected anchor to required depth design by consulting project Engineer.
- Vibrate concrete as required to ensure air pockets around stem are absent and concrete compacted to required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

STEP 3



- Ensure anchor is vertically plumb.
- Leave anchor until recommended concrete curing time have lapsed.
- Clearance between anchor stirrup base and concrete, minimum 25mm unless approved by Builder's consulting project Engineer.

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 washer to timber interface only (30mm dis. x 3mm washer).
- 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.
- Not suitable for foundation that is at the same level as natural ground unless deemed fit for purpose and approved by consulting design Engineer.
- Routinely clear away debris or any obstructions at anchor base on a regular basis.
- Tiling or paving around anchor is not recommended as this may result in a recess space around the anchor that may facilitate water pooling and debris buildup.

BOLT LENGTH

- When using Hex Head Bolts for fastening your post, it is recommended to use a length 20mm longer than 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 recommends the use of M10 Hex Head Ramset™ AnkaScrew™. Having 75mm minimum length or greater.
- Alternatively, Ramset™ M10 galvanised Dynabolt™ can also be considered provided the connection is deemed “fit for purpose” by the project consulting Engineer.
- For detailed instructions on installation and design properties, see the Ramset™ website www.ramset.com.au

Contact details	
Manufacture location	Overseas
Legal and trading name of manufacturer	Shanghai Zenith International Trading Company Co LTD
Legal and trading name of importer	Pryda New Zealand - A Division of ITW New Zealand
Importer address for service	23-29 Poland Road, Wairau Valley, Auckland, 0627, New Zealand
Importer website	Pryda.co.nz
Importer email	info@prydaanz.com
Importer phone number	0800 88 22 44
Importer NZBN	9429039833129

NEW ZEALAND HIGH WIND POST ANCHOR

Engineered for high wind areas. The U shape base is designed for maximum hold-down in concrete that can be further enhanced with reinforcing rods install through anchor end.

FEATURES AND BENEFITS

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

VERSATILE: Multiple anchor heights.

STRONG: Hot Dipped Galvanised coating after manufacture and made from 5mm steel.

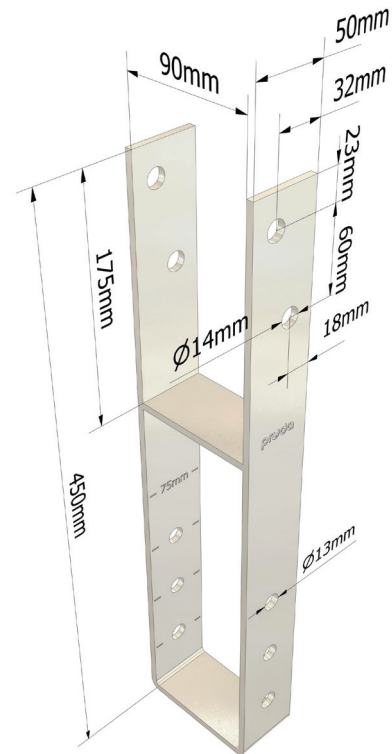
SPECIFICATIONS

STEEL	G250
THICKNESS	5mm
CORROSION RESISTANCE	Hot dip galvanised (500 g/m ²)
ANCHOR HEIGHT	450mm and 600mm
POST SIZE	90mm

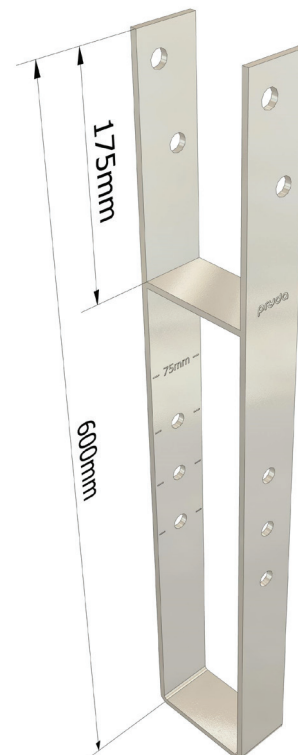
FASTENERS REQUIRED

POST STIRRUP TO TIMBER POST	M12 4.6 grade galvanised Hex Head Bolts
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At the time of print, this product is NOT subject to any known warnings and bans found in Building Act 2004.



PSQ45090/12



PSQ60090/12/4

RANGE

PRODUCT CODE	MATERIAL	STEM HEIGHT (mm)	POST SIZE (mm)	BOLT HOLE SIZE	QUANTITY
PSQ45090/12	G250 Steel, Hot Dip Galvanised (500 g/m ²)	450	90	M12	6
PSQ60090/12/4		600	90	M12	4

DURABILITY

Pryda Post Anchors are Hot Dipped Galvanised to standard AS/NZS4680, as reference in Table 4.2, NZS3604:2011. 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.

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

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

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

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

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.

- 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 90mm 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 the steel and timber post ONLY, these capacities may be limited by the anchorage to the supporting foundation. This should be verified by the Project Engineer or designer prior to installation.
- Wind uplift capacities are based on the AS/NZS1170.2 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, i.e. carports and gazebos, 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.

Pryda Bolt Down Post Anchor is certified when used and installed in accordance with the product datasheet connection details. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS3604:2011 Table 4.2. Fastener material type shall match the selected Pryda product, i.e. galvanised fasteners with galvanised products, and stainless steel fasteners with stainless steel products.

DESIGN CAPACITIES

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

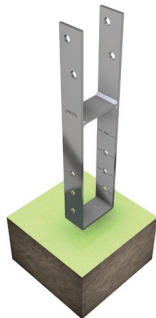
FIXINGS	POST (mm)	UPLIFT CAPACITIES FOR VARYING JOINT GROUPS (kN)		
		JD5	JD4	JD3
2 x M12 bolts	90	33.8	33.8	33.8

NOTES:

1. 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.
2. Select design capacity according to the standard used for determining the design loads.
3. Specified capacities are for concentric vertical load transfer only.
4. The base concrete and fixings to the concrete must provide sufficient resistance to the uplift forces and dead + live loads when embedding into concrete.
5. Wind uplift capacities are based on the AS/NZS1170:2002 code only, using $k_1=1.14$.
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 an Engineer.
7. Post must be laterally restrained at top.
8. Post Anchors are not intended to be used for cantilever posts and balustrades without pre-approval from an Engineer.
9. The maximum downward loading is limited to 25kN at a height of 75mm from base of post to foundation.

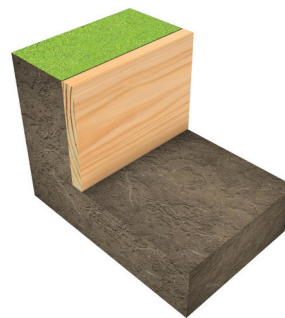
INSTALLATION - FIXING TO WET CONCRETE

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 foundation support to be level horizontally.
- Dig out ground and construct form work to required depth as specified by your consulting Engineer.
- Seek advice from your consulting project Engineer.

STEP 2



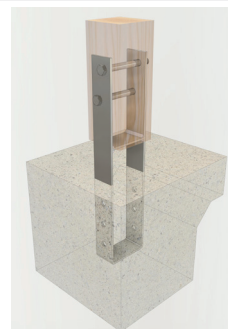
- Dig out ground and construct form work to required depth as specified by your consulting Engineer.
- Allowance for 150mm anchor embedment and 75mm clearance between underside of post to foundation surface.

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 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.

STEP 6



- Insert 2 x M12 bolts 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.

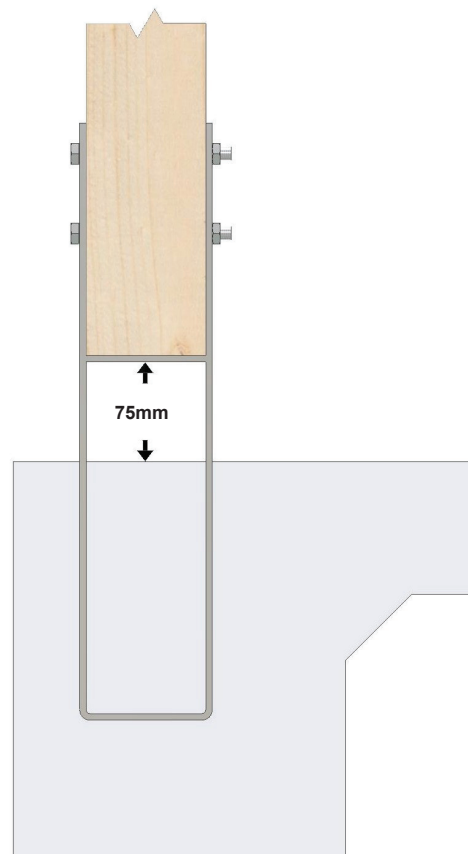
INSTALLATION TIPS

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 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.
- Tiling or paving around anchor is not recommended as this may result in a recess space around the anchor that may facilitate water pooling and debris buildup.

BOLT LENGTH

- When using Hex Head Bolts for fastening your post, it is recommended to use a length 20mm longer than 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 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 recommends the use of M10 Hex Head Ramset™ AnkaScrew™. Having 75mm minimum length or greater.
- Alternatively, Ramset™ M10 galvanised Dynabolt™ can also be considered provided the connection is deemed “fit for purpose” by the project consulting Engineer.
- For detailed instructions on installation and design properties, see the Ramset™ website www.ramset.com.au

Contact details	
Manufacture location	Overseas
Legal and trading name of manufacturer	Shanghai Zenith International Trading Company Co LTD
Legal and trading name of importer	Pryda New Zealand - A Division of ITW New Zealand
Importer address for service	23-29 Poland Road, Wairau Valley, Auckland, 0627, New Zealand
Importer website	Pryda.co.nz
Importer email	info@prydaanz.com
Importer phone number	0800 88 22 44
Importer NZBN	9429039833129

www.pryda.com.au www.pryda.co.nz

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