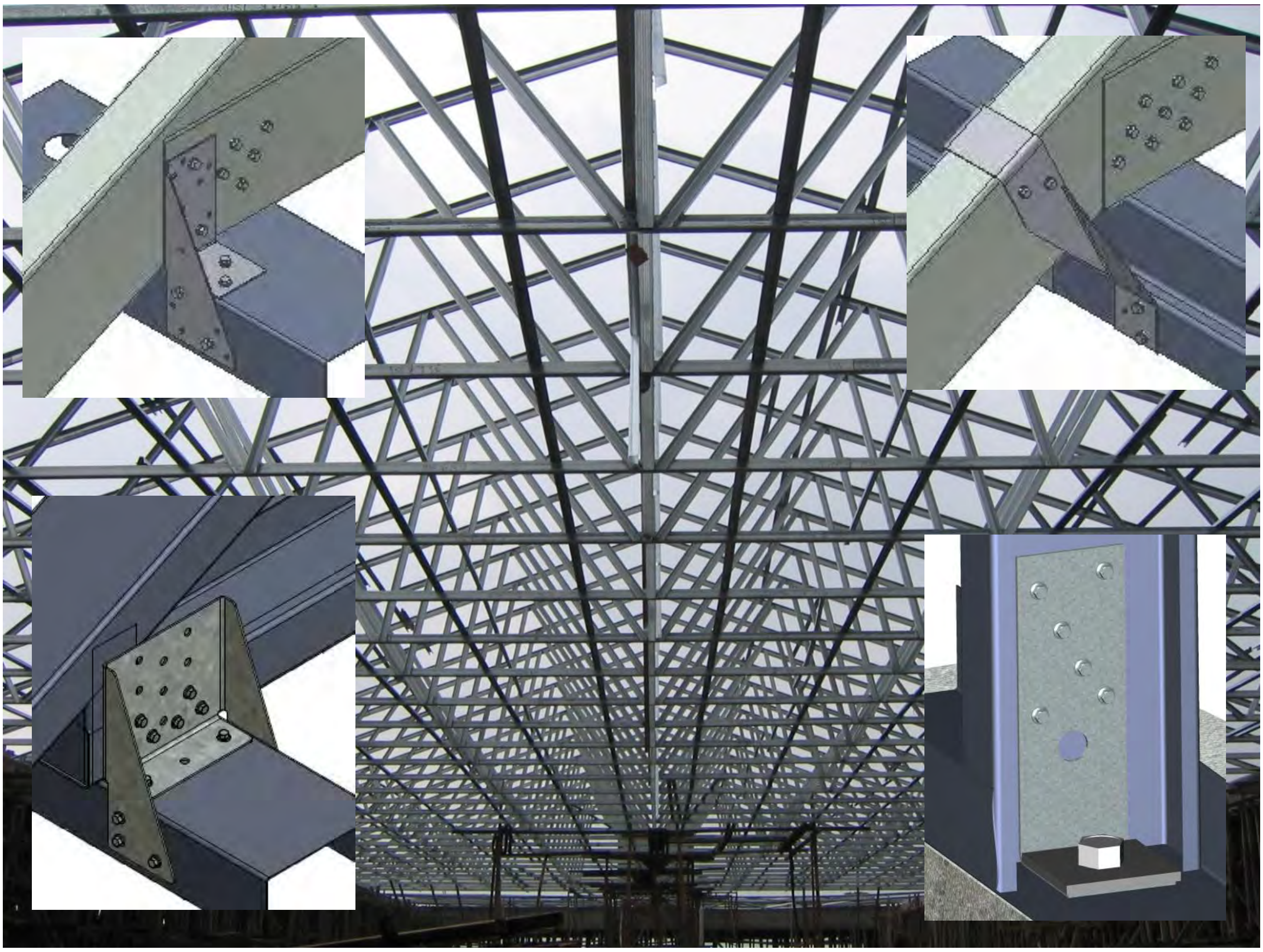
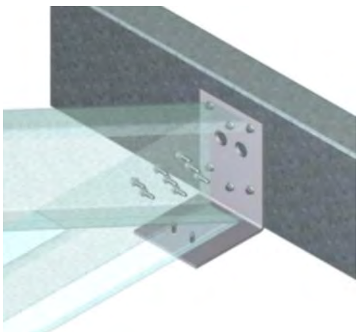
Design Guide
Pryda Connectors for Steel Framing





November 2012

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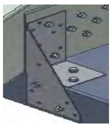
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Appendix 14

Product Information contained in this product guide is subject to change.

The latest updates are available from www.pryda.com.au.

GENERAL NOTES

Material Thickness

All material thicknesses referred to in this guide are the total coated thickness. This includes the zinc coating thickness, which is typically around 0.04mm for Z275 steel or 0.05mm for AZ150 steel.

Screw Specifications

The design capacities in this guide are given for two screw gauges, 10g or 12g screws as applicable.

- 10g screws refers to Buildex® 10-16x16 Teks® screws using a nominal screw diameter (df) of 4.9 mm.
- 12g screws refers to Buildex® 12-14x20 Teks® screws using a nominal screw diameter (df) of 5.4 mm.

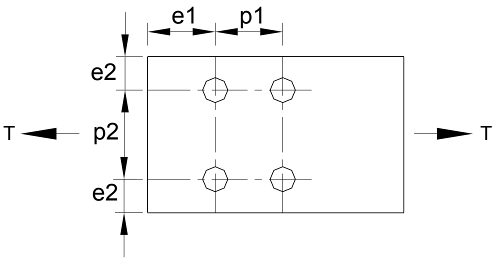
Metal self drilling screws from other suppliers, having similar or better specifications, may be used in lieu of the above mentioned screws.The screw head can be either hex-head, wafer-head, flat top head or similar.
Note: a M6x22mm Buildex GX Teks screws may be adopted in place of 12g screws

For further information on metal self drilling screws, refer Appendix of this document or visit ITW Buildex website at **www.buildex.com.au**

End Distance, Edge Distance and Spacing requirement for screws

Min.edge distance (e2) = 1.5df (approx.8mm for 10g & 9mm for 12g screws)
Min. end distance (e1) = See Table below

Min. spacing (p1 or p2) = 3.0df (approx.15mm for 10g & 17mm for 12g screws)



The Table below gives the minimum end distance that is required to avoid plate tear-out for a typical 1.0 mm or 1.2 mm G300 Pryda connector while maintaining the full design capacity of the screwed connection.

Steel Grade & Thickness of fixing material	Minimum End Distance (e1) in mm			
	10g screws		12g screws	
	1.0mm Connector	1.2mm Connector	1.0mm Connector	1.2mm Connector
G300; 0.8mm	8*	8*	9*	9*
G300; 1.0mm	8*	8*	9*	9*
G300; 1.2mm	9	8*	10	9*
G450; 1.6mm	10	10	11	11
G550; 0.6mm	8*	8*	9*	9*
G550; 0.8mm	8*	8*	9*	9*
G550; 1.0mm	10	9	11	10

Minimum End Distance Requirements for Pryda Connectors

Notes:
(a) The end distance is the distance to edge of steel measured in the direction of the applied force.

(b)The end distances with '*' is the minimum end distance of 1.5df for the respective screw as permitted in accordance with Clause 5.4.2.4 of AS4600:2005.

(c) Pryda connectors use G300 Z275 steel.

Design Capacities

Design Uplift Capacities and Bracing Capacities given in this guide include the appropriate Capacity Factors (ϕ). They have been calculated in accordance with AS/NZS 4600:2005. Some of the values have also been verified from tests. NASH Standard Part 1-*Design Criteria* and NASH Handbook – *Residential and Low-rise Steel Framing* have been used as guidance. Note: For Steel designations G400, G450, Z275, AZ150 etc refer to AS 1397.

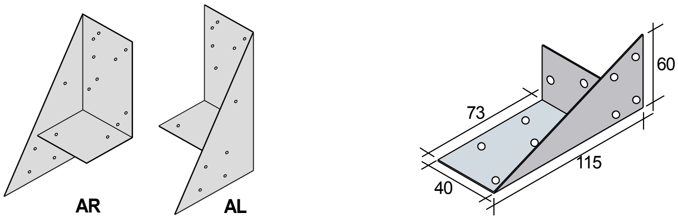
Durability

The materials used, along with their installation and maintenance, should ensure that components will fulfil their intended structural function for the intended life of the structure. Pryda products having Z275 coating is suitable for most internal applications Refer to the BCA, NASH Standard Part 1- Design Criteria or NASH Handbook for information on the suitability of corrosion protection of the material and the fasteners. A Class 3 screw is normally used for fixing into Z275 or AZ150 steel – visit ITW Buildex website for further information on corrosion requirement on screws.

TRIPLE GRIPS

Pryda Triple Grips are typically used to tie-down roof trusses or rafters.

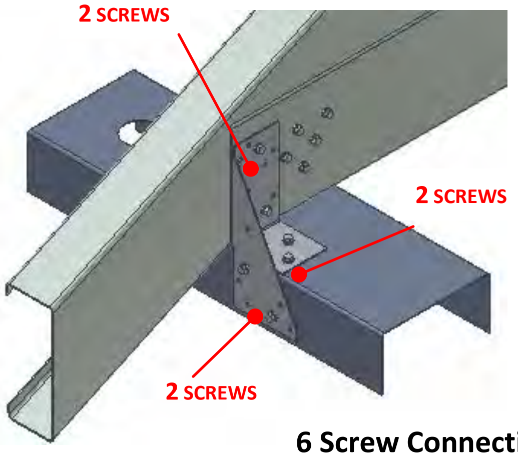
Specification

Steel	1.0 mm G300- Z275	
Product Codes	TGAR, TGAL MPTGAR, MPTGAL	Note: Product codes are: TG + Profile + R = Right hand or L = Left Hand, "MP" = Merchant pack – individually barcoded product
Profiles Note: Profiles shown are Right hand	 Dimensions	
Packing	100 per carton, 50 per carton (merchant packs)	

Design Capacities

(i) **Using 6 screws per connection**

Steel Grade & thickness of fixing material	Design Uplift Capacity (kN) (6 screw connections)	
	10g screws	12g screws
G300; 0.8mm	2.0	2.2
G300; 1.0mm	2.9	3.1
G300; 1.2mm	3.9	4.2
G450; 1.6mm	4.2	4.7
G550; 0.6mm	1.5	1.6
G550; 0.8mm	3.0	3.1
G550; 1.0mm	4.2	4.7

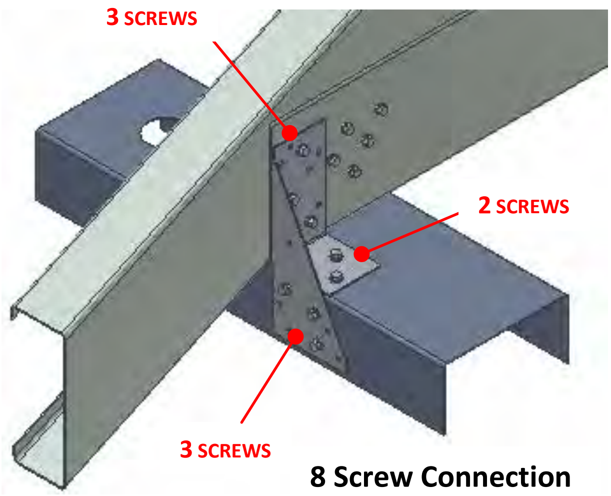


6 Screw Connection

(ii) **Using 8 screws per connection**

Steel Grade & thickness of fixing material	Design Uplift Capacity (kN) (8 screw connections)	
	10g screws	12g screws
G300; 0.8mm	3.1	3.2
G300; 1.0mm	4.4	4.6
G300; 1.2mm	5.9	6.0*
G450; 1.6mm	6.0*	6.0*
G550; 0.6mm	2.3	2.5
G550; 0.8mm	4.5	4.7
G550; 1.0mm	6.0*	6.0*

*Capacity limited by steel strength of a triple grip



8 Screw Connection

Note:

(a) The final design value should be taken as the minimum of the capacities determined separately for the truss/rafter and the wall plate using the appropriate material thickness and grade.

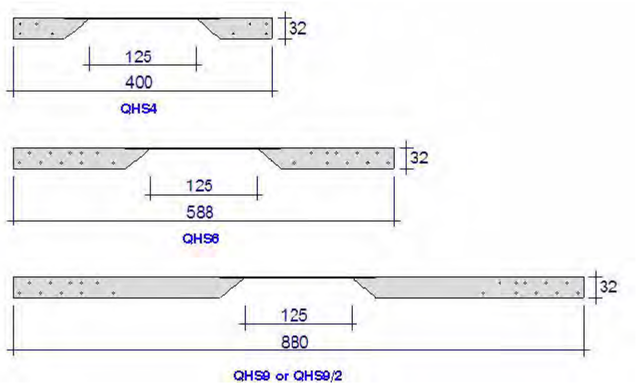
(b) All screws should be installed with a minimum edge/ end distance and spacing requirement given in page 3 (General Notes)

CYCLONE STRAPS

Pryda Cyclone Straps are typically used in cyclonic areas for tying down roof trusses or other roof members to the wall frame. They can also be used to fix purlins to roof trusses.

Specification

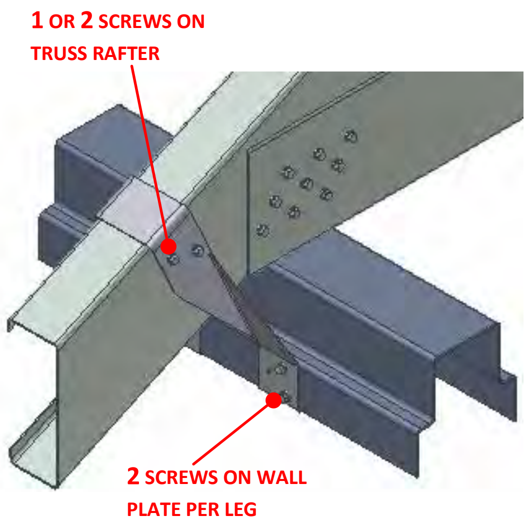
Size	See Dimensions on the right		
Steel	G300-Z275		
Product Code	QHS4	QHS6	QHS9 or QHS9/2*
Thickness (mm)	1.0	1.0	1.0 or 1.2*
Packing	80/carton	80/carton	25/bundle
Length	400 mm	588 mm	880 mm



Design Capacities

(i) Using 2 screws on wall plate per leg

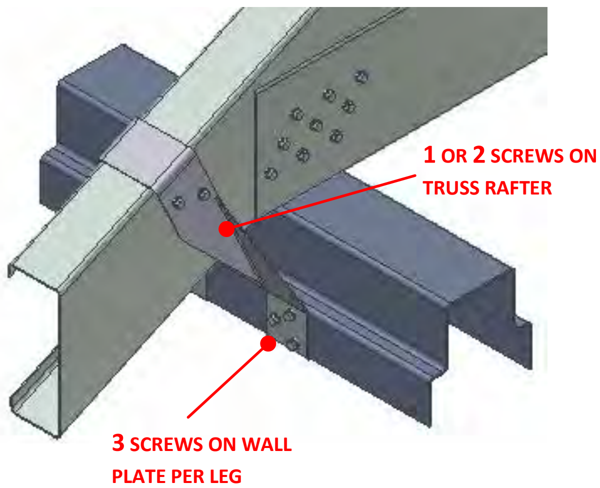
Steel Grade & thickness of fixing material	Design Uplift Capacity (kN) (2 screws on wall plate per leg)	
	10g screws	12g screws
1.0mm Cyclone Strap		
G450; 1.6mm	8.5	9.5
G550; 0.8mm	6.0	6.3
G550; 1.0mm	8.5	9.5
1.2mm Cyclone Strap		
G450; 1.6mm	10.3	11.5
G550; 0.8mm	6.0	6.6
G550; 1.0mm	9.4	10.0



(ii) Using 3 screws on wall plate per leg

Steel Grade & thickness of fixing material	Design Uplift Capacity (kN) (3 screws on wall plate per leg)	
	10g screws	12g screws
1.0mm Cyclone Strap		
G450; 1.6mm	12.4*	12.4*
G550; 0.8mm	8.9	9.4
G550; 1.0mm	12.4*	12.4*
1.2mm Cyclone Strap		
G450; 1.6mm	15.0*	15.0*
G550; 0.8mm	8.9	9.9
G550; 1.0mm	14.2	14.9

* Capacity limited by steel strength of a cyclone strap



Note:

(a) The final design value should be taken as the minimum of the capacities determined separately for the truss/rafter and the wall plate using the appropriate material thickness and grade.

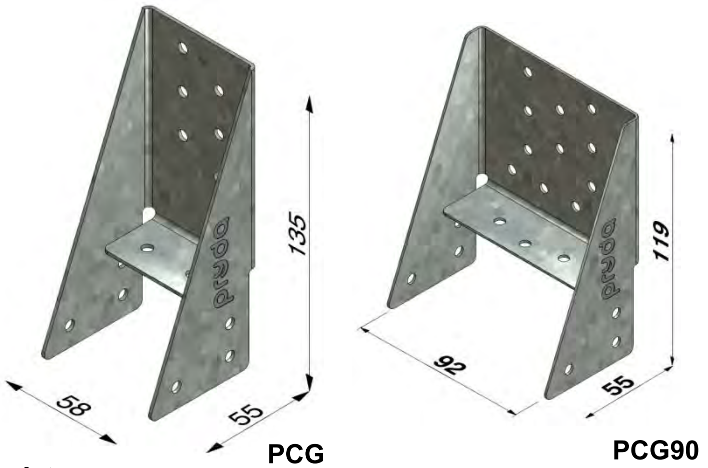
(b) All screws should be installed with a minimum edge/end distance and spacing requirement given in page 3 (General Notes). There is no requirement for the screws to be driven through holes (the holes in the cyclone straps are located to satisfy edge distance requirements for 3.15 dia nails)

CYCLONIC GRIP

Pryda Cyclonic Grips will be generally used in cyclonic areas for tying down roof trusses or other roof members to the wall frame. They can also be used to tie-down wall plates to studs. The PCG grips are designed specifically to be fixed into typical heavy-duty wall plates (1.5mm thick G450) and the PCG90, on the other hand, is targeted for standard 90mm framing

Specification

Size	135x55x58 (PCG) 119x55x92 (PCG90)
Steel	G300-Z275
Product Code	PCG, PCG90
Thickness (mm)	1.6 (PCG); 1.2 (PCG90)
Packing	50 per carton

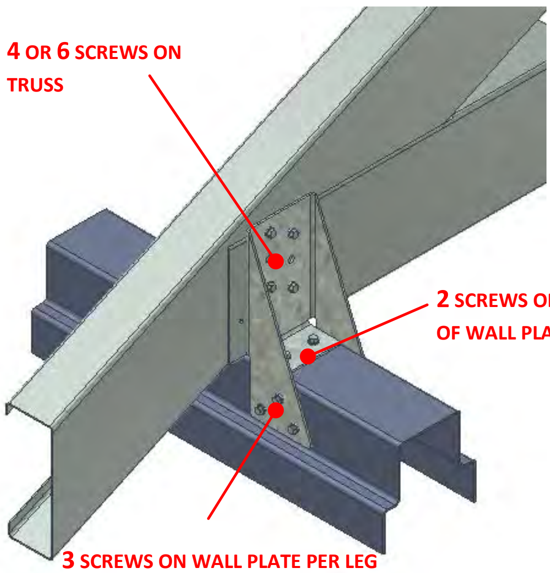


PCG PCG90

Design Capacities for PCG

Using 3 screws per leg on 1.5mm G450 heavy-duty wall plate.

Steel Grade & thickness of truss chord or rafter	Design Uplift Capacity (kN)	
	4/12g screws into truss/rafter	6/12g screws into truss/rafter
G450; 1.5mm	14.0	18.0
G550; 0.8mm	6.3	9.4
G550; 1.0mm	9.5	14.5



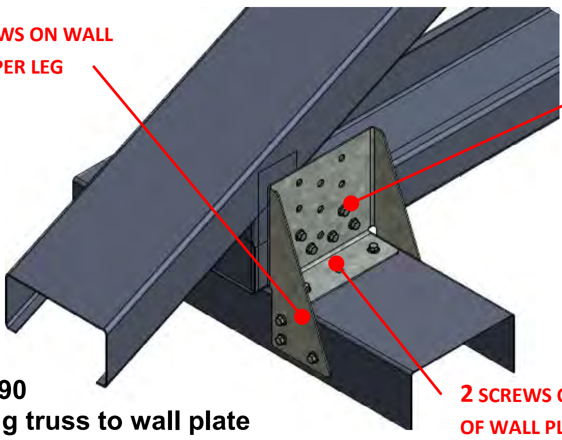
PCG : Fixing truss to heavy duty wall plate

Design Capacities for PCG90

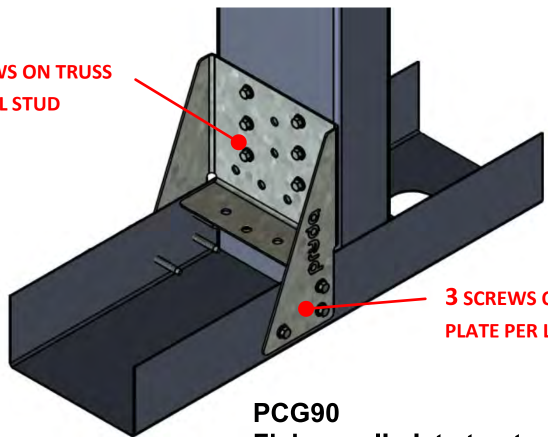
Using 3 screws per leg on 1.0mm G550 wall plate and 6 screws into truss chord or wall stud (refer note below)

Steel Grade & thickness of truss chord, rafter or wall stud	Design Uplift Capacity (kN)	
	Fixing into truss chords or rafters	Fixing into Wall Studs
G550; 0.8mm	9.9	8.5
G550; 1.0mm	14.0	12.5

Note: Screws for PCG90 refer to **M6x22mm Buildex GX Teks** screws. Reduce capacities by 5% if 12g Teks screws are used instead.



PCG90
Fixing truss to wall plate



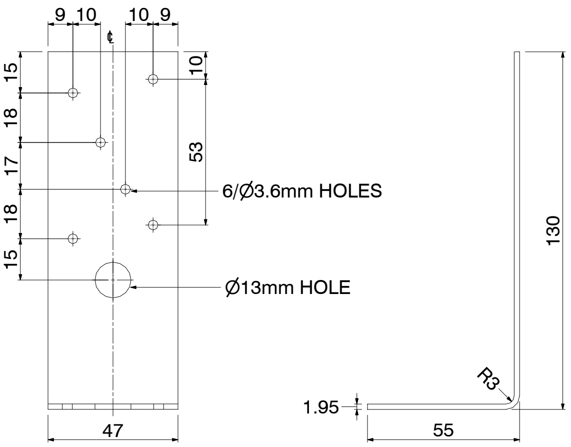
PCG90
Fixing wall plate to stud

PRYDA HOLD-DOWN BRACKET

Pryda Hold-down Bracket can be used in a variety of applications in both timber and steel framed structures. Providing tie-down resistance for steel wall studs or roof trusses is the most common usage of this product.

Specification

Size	130 x 50 x 47
Steel	G300-Z275
Product Code	MPCPAH
Thickness (mm)	2.0
Packing	75 per carton



Design Capacities

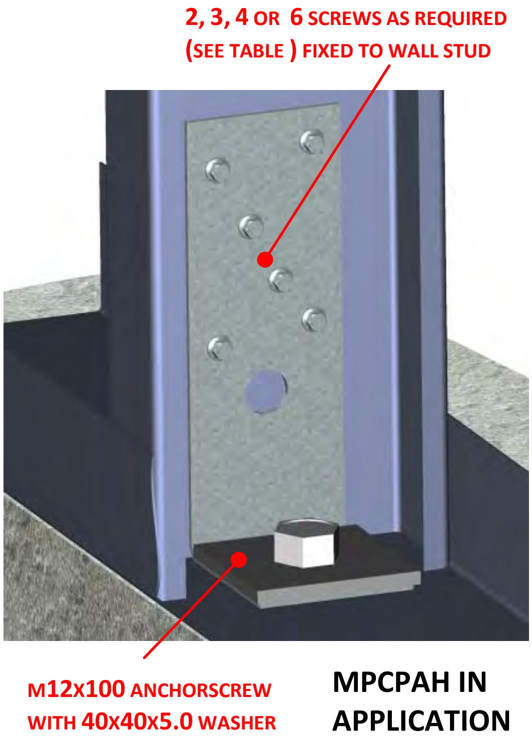
The design capacities for MPCPAH brackets are tabulated below for use with both 10g and 12g screws. In order to achieve these capacities, a suitable tie-down anchor and a minimum 40x40x5.0mm (Product Code: OW12/40S) galvanised washer is required.

Uplift Capacities for 10g screws

Steel Grade & thickness of wall stud	Design Uplift Capacity (kN) for 10g screws on wall stud			
	2 screws	3 screws	4 screws	6 screws
G300; 0.8mm	2.0	3.1	4.1	6.1
G300; 1.0mm	2.9	4.4	5.8	8.8
G550; 0.8mm	3.0	4.5	6.0	8.9
G550; 1.0mm	4.7	7.1	9.4	14.2

Uplift Capacities for 12g screws

Steel Grade & thickness of wall stud	Design Uplift Capacity (kN) for 12g screws on wall stud			
	2 screws	3 screws	4 screws	6 screws
G300; 0.8mm	2.2	3.2	4.3	6.5
G300; 1.0mm	3.1	4.6	6.2	9.2
G550; 0.8mm	3.1	4.7	6.3	9.4
G550; 1.0mm	5.0	7.5	10.0	14.9



MPCPAH IN APPLICATION

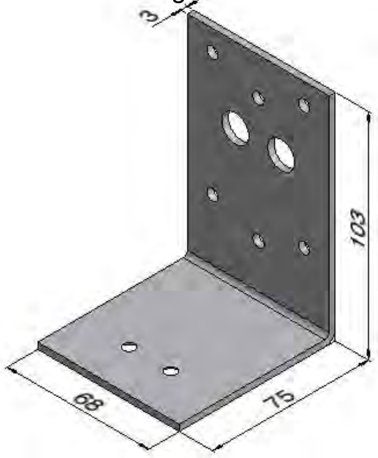
Tie-Down Anchors

M12 x 100 Ramset™ Anchorscrew™ may be used as a tie-down anchor into concrete slab/footing to satisfy all of the above capacities. For a minimum edge distance of 35mm and embedment depth of 90mm in Grade 20 concrete, a tie-down capacity of approx 18.0 kN can be achieved.

This anchorscrew (zinc plated) is available from Pryda (Product Code: AS12100H), packed in a carton of 50. A galvanized Anchorscrew™ is also available from Ramset™ for use in more corrosive environments. For more information visit **www.ramset.com.au.**

HIP SUPPORT BRACKET

Pryda Hip Support Bracket can be used for truss to truss connections in low wind regions.



Specification

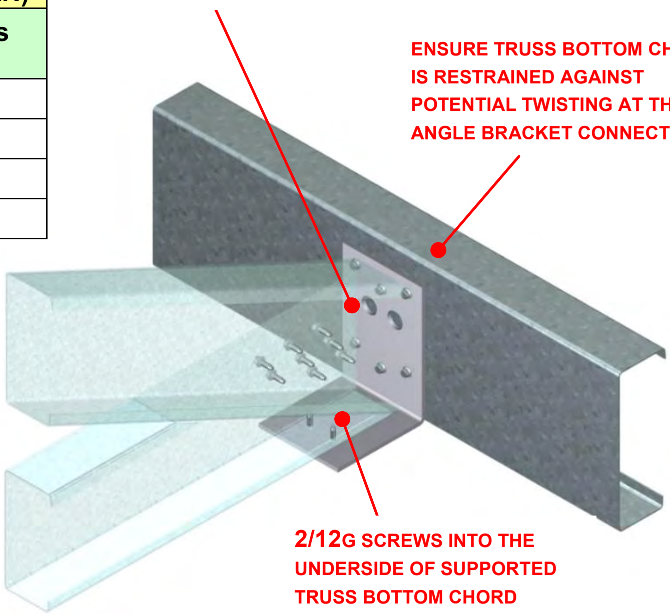
Size	68 x 75 x 103
Steel	G300-Z275
Product Code	HSB
Thickness (mm)	3.0
Packing	50 per carton

Design Capacities

The design capacities for HSB brackets are tabulated below for use with only 12g screws fixed in accordance with the illustration shown below. Due to load eccentricities in the connection, the truss bottom chord has the potential to twist at high loads. Steps should be taken to counter this by way of stiffeners or webs at these locations.

Downward Load Capacities

Steel Grade & thickness of truss chord	Design Downward Load Capacity (kN)	
	4/12g screws into girder	6/12g screws into girder
G300; 0.8mm	4.0	6.0
G300; 1.0mm	6.0	9.0
G550; 0.8mm	6.0	9.0
G550; 1.0mm	9.0	14.0



Uplift Capacities

Steel Grade & thickness of supported truss	Design Uplift Capacity (kN)
	2/12g screws into supporting truss
G300; 0.8mm	1.2
G300; 1.0mm	1.5
G550; 0.8mm	1.7
G550; 1.0mm	2.4

STRAP BRACE and TENSIONERS

For almost 30 years, Pryda bracing products have been developed to be structurally sound and cost effective for the bracing of roofs, walls, floors and other parts of timber or steel framed buildings. They meet design requirements and have been laboratory tested to verify their strength.,

Specification for Pryda Bracing

All Pryda bracings are manufactured from G300 -Z275 steel or equivalent for high strength and corrosion resistance in most interior uses as specified in the BCA (Clause 3.4.2.2 of Vol 2). For more severe environments, a 25 x 1.0mm stainless steel strap brace (SB102/SS) with a stainless steel tensioner is available from Pryda.

Uses & Advantages

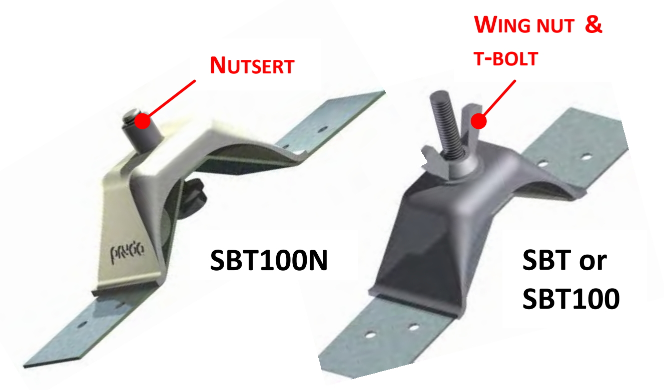
Pryda Strap Brace with Tensioner, is an easy-to-use, flat strap, steel bracing for roofs, walls, ceilings and floors. Strap Brace has excellent advantages, including:

- Available in long length coils for ease of handling and minimum wastage
- **Easily and quickly tensioned** using one of the Pryda Strap Brace Tensioners.

Sizes

Available sizes of **Pryda Strap Brace** that are recommended for structural applications are:

PRODUCT CODE	ARTICLE & SIZE
SB083/15	30 x 0.8 mm x 15 m coil
SB083/30	30 x 0.8 mm x 30 m coil
SB083/50	30 x 0.8 mm x 50 m coil
SB083/3.5	30 x 0.8 mm x 3.5m x 500 lengths
SB083/4.5	30 x 0.8 mm x 4.5m x 500 lengths
SB103/30	30 x 1.0 mm x 30 m coil
SB103/50	30 x 1.0 mm x 50 m coil
SB123/30	32 x 1.2 mm x 30m coil



Two types of **Strap Brace Tensioners** are available:

(i) SBT & SBT100 using a M6 x 30 T-bolt, washer and a wing nut.
(ii) SBT100N & SBT30N with nutsert and M6 x 30 hex-head bolt.

SBT tensioners are available in 6 per pack x 5 packs (30 in carton).
SBT100 & SBT100N tensioners are a bulk pack of 100 pieces.
SBT30N tensioners are available in 6 per pack x 5 packs (30 in carton) includes Hex-head bolts.

Structural Performance

Pryda Strap Brace takes load in tension only and must, therefore, be used in pairs, in opposing diagonal directions. It must also be sufficiently tensioned to take the load without distortion of the steel roof or wall frame. The tension capacities given below are derived from laboratory testing in accordance with AS/NZS 4600:2005.

Tension Capacities:

Product Code	Cross Section	Design Tension Capacity (kN)
SB083	30 x 0.8	**5.1**
SB103	30 x 1.0	**6.8**
SB123	32 x 1.2	**9.4**

WALL BRACING GUIDE

For effective performance of wall bracing, the strap braces should be installed properly. Some of the important areas that need consideration are:

- **Screw Fixing:** Keep the screws away from ends of steel to prevent plate tearout and reduced capacities. Refer General Notes in page 3 for further details.
- **Brace Angle:** Install the brace at an angle of between 40 and 50 degrees to the horizontal if possible. Otherwise, the minimum is 30 degrees, maximum 60 degrees.
- **Strap Tensioning:** Ensure each length of Strap Brace has a Pryda Tensioner, properly tightened prior to screw fixing. Care should be taken not to over-tension the strap braces during installation, and for best performance, strap brace should be maintained at an 'out-of-straightness' not greater than 15mm.

Pryda Strap Brace Selection Tables for use in Wall Bracing

(1) Using 10g screws – for wall heights up to 2700

Table A – for G550; 0.8mm wall framing using 2/10g Teks screws per strap brace at each end

Bracing Force (kN)	Wall Lengths (mm)				
	1800	2100	2400	2700	3000
1.0	SB083	SB083	SB083	SB083	SB083
1.5	SB083	SB083	SB083	SB083	SB083
2.0	SB083	SB083	SB083	SB083	SB083
2.5	2/SB083	SB083	SB083	SB083	SB083
3.0	2/SB083	2/SB083	SB083	SB083	SB083
3.5	2/SB083	2/SB083	2/SB083	2/SB083	SB083
4.0	2/SB083	2/SB083	2/SB083	2/SB083	2/SB083
4.5	Special	2/SB083	2/SB083	2/SB083	2/SB083
5.0	Special	Special	2/SB083	2/SB083	2/SB083
5.5	Special	Special	Special	Special	2/SB083
6.0	Special	Special	Special	Special	Special

Table B – for G550; 1.0mm wall framing using 2/10g Teks screws per strap brace at each end

Bracing Force (kN)	Wall Lengths (mm)				
	1800	2100	2400	2700	3000
1.0	SB083	SB083	SB083	SB083	SB083
1.5	SB083	SB083	SB083	SB083	SB083
2.0	SB083	SB083	SB083	SB083	SB083
2.5	SB083	SB083	SB083	SB083	SB083
3.0	SB103	SB103	SB083	SB083	SB083
3.5	2/SB083	SB103	SB103	SB083	SB083
4.0	2/SB083	2/SB083	SB123	SB103	SB103
4.5	2/SB103	2/SB083	2/SB083	SB123	SB103
5.0	2/SB103	2/SB103	2/SB083	2/SB083	2/SB083
5.5	2/SB103	2/SB103	2/SB103	2/SB083	2/SB083
6.0	2/SB123	2/SB103	2/SB103	2/SB103	2/SB083

Note: Read these tables in conjunction with notes on page 10.

(2) Using 12g screws – for wall heights up to 2700

TABLE A – for G550; 0.8mm wall framing using 2/10g Teks screws per strap brace at each end

Bracing Force (kN)	Wall Lengths (mm)				
	1800	2100	2400	2700	3000
1.0	SB083	SB083	SB083	SB083	SB083
1.5	SB083	SB083	SB083	SB083	SB083
2.0	SB083	SB083	SB083	SB083	SB083
2.5	SB083	SB083	SB083	SB083	SB083
3.0	2/SB083	2/SB083	SB083	SB083	SB083
3.5	2/SB083	2/SB083	2/SB083	SB123	SB083
4.0	2/SB083	2/SB083	2/SB083	2/SB083	2/SB083
4.5	Special	2/SB083	2/SB083	2/SB083	2/SB083
5.0	Special	Special	2/SB083	2/SB083	2/SB083
5.5	Special	Special	Special	2/SB083	2/SB083
6.0	Special	Special	Special	Special	2/SB083

TABLE B – for G550; 1.0mm wall framing using 2/10g Teks screws per strap brace at each end

Bracing Force (kN)	Wall Lengths (mm)				
	1800	2100	2400	2700	3000
1.0	SB083	SB083	SB083	SB083	SB083
1.5	SB083	SB083	SB083	SB083	SB083
2.0	SB083	SB083	SB083	SB083	SB083
2.5	SB083	SB083	SB083	SB083	SB083
3.0	SB103	SB083	SB083	SB083	SB083
3.5	SB123	SB103	SB103	SB083	SB083
4.0	2/SB083	SB123	SB123	SB103	SB103
4.5	2/SB083	2/SB083	2/SB083	SB123	SB123
5.0	2/SB103	2/SB083	2/SB083	2/SB083	SB123
5.5	2/SB103	2/SB103	2/SB083	2/SB083	2/SB083
6.0	2/SB123	2/SB103	2/SB103	2/SB083	2/SB083

Notes on the Selection Tables:

(a) SB083, SB103 and SB123 refer to Pryda Strap Brace with cross-section of 30x0.8, 30x1.0 and 32x1.2 respectively.

(b) 2/SB083, 2/SB103 or 2/SB123 refer to cross bracing panels using double strap braces (refer Wall Panel Type 2 details in this document).

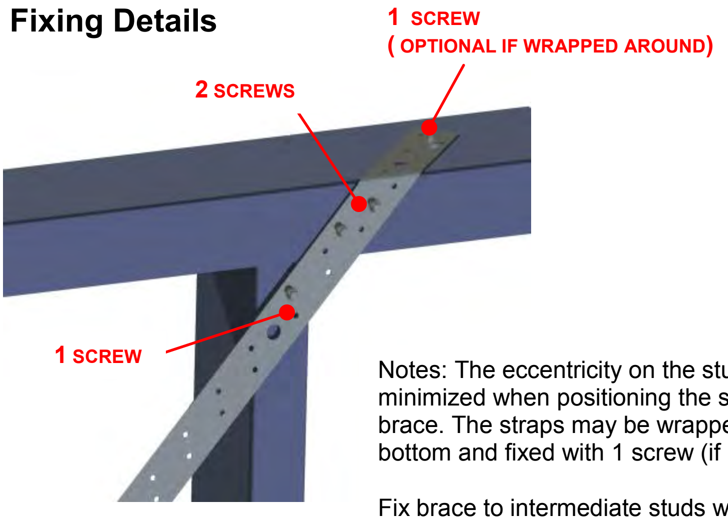
(c) ‘Special’ in the above tables signifies that none of the Pryda strap braces are adequate, and therefore a special brace is required.

(d) The selection tables have been prepared by considering the minimum of the following capacities:
- (i) Tension Capacity of the strap brace.
- (ii) Screwed connection in shear using 2/10g or 2/12g screws
- (iii) Tension capacity of the net section of the connected part.

The screwed connection in shear controls the design in most of the cases.

(e) **The capacity of plasterboard (fixed on one face) equal to 0.45 kN/m is assumed to be contributing to the total bracing capacity of the cross-braced panel.**

Fixing Details



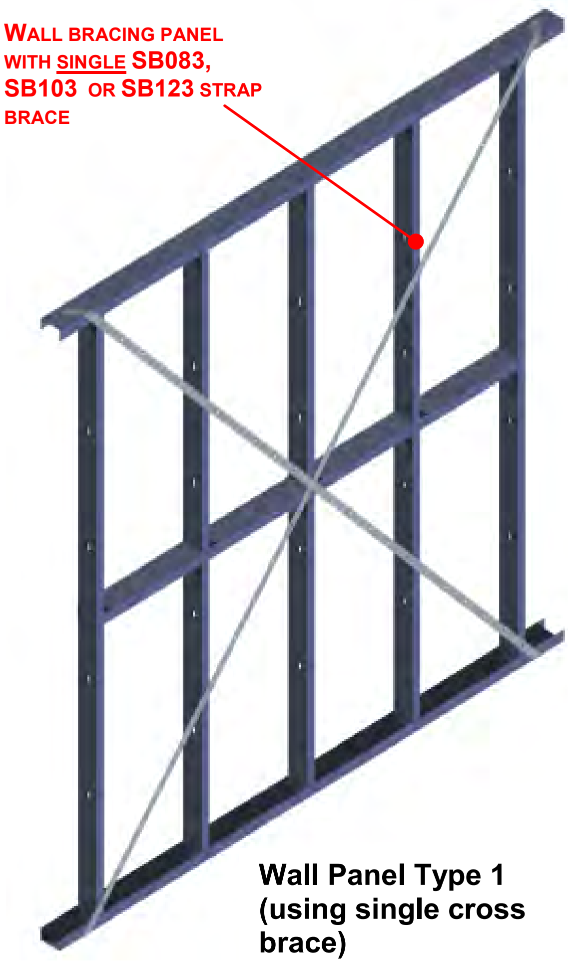
Minimum end and edge distances for 10g screws:

The min.edge distance (e2)	= 7.5mm (1.5df)
The min. end distance (e1)	
For G550, 0.8 mm wall framing	= 9.0mm(SB083) = 7.5mm (SB103)
For G550, 1.0 mm wall framing (for both SB083 and SB103)	= 10.0mm
The min. spacing (p1 or p2)	= 15.0mm (3df)

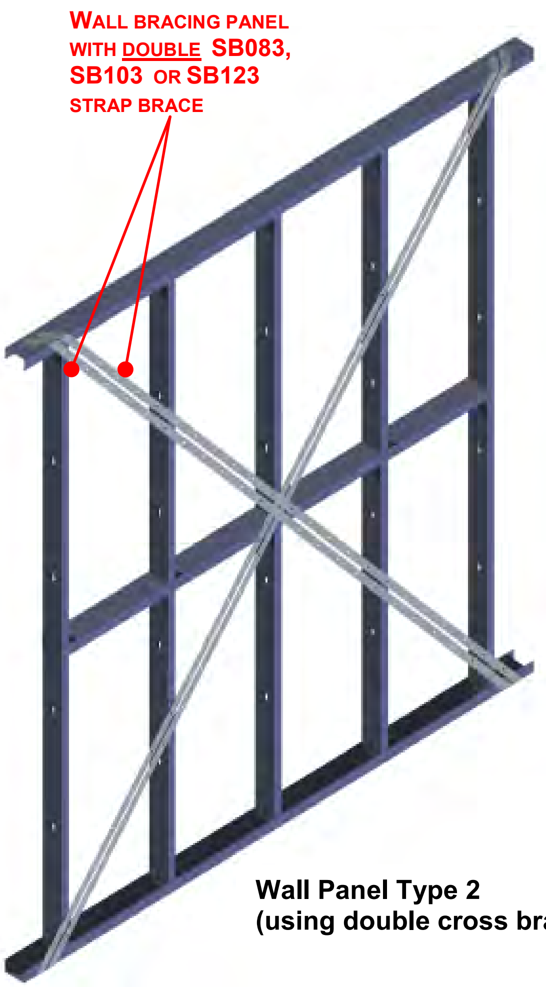
Notes: The eccentricity on the studs and plates should be minimized when positioning the screws at ends of strap brace. The straps may be wrapped around the top and/or bottom and fixed with 1 screw (if required).

Fix brace to intermediate studs with 1/10g screw to avoid rattling.

Bracing Panel Types



Wall Panel Type 1 (using single cross brace)



Wall Panel Type 2 (using double cross brace)

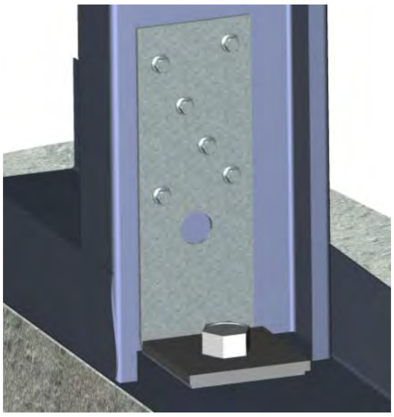
Note: As an alternative, the second strap brace may be installed on the opposite face of the wall.

Anchorage of Bracing Walls

A bracing wall should to be adequately anchored for it to be fully effective. This anchorage is required at each ends of the wall to resist uplift reaction induced by the racking(bracing) forces. The following table gives typical uplift reactions for varying bracing force and wall lengths.

Uplift Force at ends of Bracing Walls (Nom. Heights up to 2700mm)

Bracing Force (kN)	Uplift Force (kN) for Wall Lengths				
	1800	2100	2400	2700	3000
3.0	4.5	3.9	3.4	3.0	2.7
3.5	5.3	4.5	3.9	3.5	3.2
4.0	6.0	5.1	4.5	4.0	3.6
4.5	6.8	5.8	5.1	4.5	4.1
5.0	7.5	6.4	5.6	5.0	4.5
5.5	8.3	7.1	6.2	5.5	5.0
6.0	9.0	7.7	6.8	6.0	5.4



Pryda Hold-down bracket can be used to anchor bracing walls

A suitable anchorage should be selected at ends of bracing walls to resist these uplift forces. Use design information on Pryda Hold-Down bracket (CPAH) (refer page 6 of this document) as guidance. Following table gives capacitites for the CPAH using 12g screws, in combination with a 40x40x5.0 washer and M12x100 Ramset™ Anchorscrew™

Steel Grade & thickness of wall stud	Design Uplift Capacity (kN) for 12g screws on wall stud			
	2 screws	3 screws	4 screws	6 screws
G550; 0.8mm	3.1	4.7	6.3	9.4
G550; 1.0mm	5.0	7.5	10.0	14.9

Read Clause 5.3.1 (c) NASH Handbook for further information on anchorage of bracing walls.

Appendix

ANKASCREW™

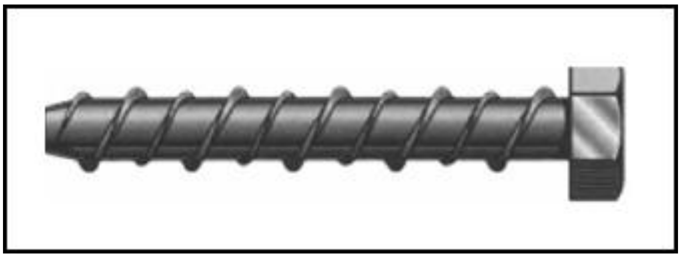
Also available in zinc and Galvanised

OVERVIEW

Ramset™ released the Ankascrew™ onto the Australian market in February 2000.

Ankascrew™ was originally marketed to the Do It Yourself, home handyperson segment, but because of its simplistic design and ease of use, it has become a popular masonry anchor to all trades.

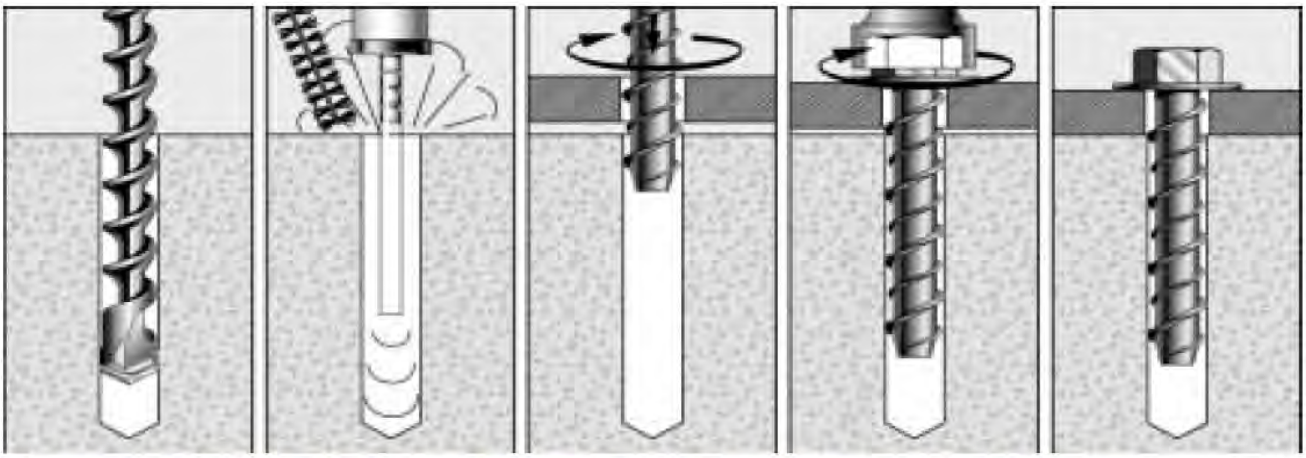
The Ankascrew™ is an innovative, self tapping screw-in anchor, used to fasten fixtures in the light to medium duty range and will fasten materials to concrete and other solid masonry as well as hollow concrete block, solid pressed brick and extended wire cut bricks with holes therein.



The Ramset™ Ankascrew™ is a self tapping anchor with multi-use capabilities where the thread cuts into the substrate for a positive and secure anchorage.

INSTALLATION

To achieve maximum loads the installation process needs to be carried out as follows:



To achieve maximum loads the installation process needs to be carried out as follows.

1. Drill a hole to the correct diameter and depth.
Note:
Hole depth = Bolt length - fixture thickness + overdrill depth.

2. Clean hole with a brush and remove debris with vacuum or hand pump.

3. Using a socket wrench, screw the ANKASCREW into the hole exerting a slight downward pressure until the "self-tapping" action starts.

4. Tighten the ANKASCREW. If resistance is experienced whilst tightening, unscrew fastener one turn and re-tighten, ensuring not to overtighten with excessive torque.

5. For optimum performance, a torque wrench should be utilized.

USES of Ankascrew™

- Pallet racking
- Temporary safety barriers
- Conveyors pipe brackets
- Gate hinges into brickwork
- Temporary hand rails
- Bottom plates
- Used for fast and simple anchoring into solid concrete and masonry or hollow brick and block

Buildex®

December 2009

Product Technical Specification Sheet

Metal Teks® Hex Hd 10g

Material
Carbon Steel 1022

Application

Buildex® Metal Teks® 10-16 x 25mm are used for a variety of applications for fixing to metal. Drilling capacity for these parts is 1.2mm – 4.8mm.

Installation Instructions

1. Use a Hex Head 5/16" Hex Socket.
2. Fit driver to a power screwdriver approximately 2500 rpm.
3. Fit screw to driver and place at fastening position
4. Apply consistently firm pressure to the screwdriver until screw has drilled and fastened.

Technical Specifications

Mechanical Properties

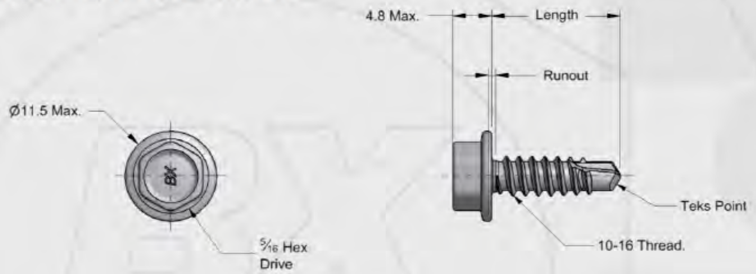
Single Shear (kN)	Axial Tensile (kN)	Torsional Strength (Nm)
6.0	12.0	8.5

Values given are averages obtained under lab conditions. Appropriate safety factors need to be applied for design purposes.

Corrosion Performance

The Buildex® Metal Teks® Hex Head 10 – 16 x 25mm and 16mm Screws comply to Australian Standards AS3566.2 Class 3 and Class 4 under real world testing.

Product Dimensions



December 2009

Buildex®

Product Technical Specification Sheet

Hex Head Teks® 12-14x20mm

Material
Carbon Steel 1022

Application

Buildex® Teks® 12-14 x 20mm fasteners are designed for fixing metal to metal. Drilling capacity is 1mm – 5mm steel.

Installation Instructions

1. Ensure that the total thickness of the materials to be joined is between 1mm and 5mm.
2. Use a 5/16" Hex Socket.
3. Fit driver to a power screwdriver (Teks® Gun) under 3000 rpm.
4. Fit screw to driver and place at fastening position
5. Squeeze screwdriver trigger and maintain firm end pressure until screw has drilled and fastened.

Technical Specifications

Mechanical Properties

Single Shear (kN)	Axial Tensile (kN)	Torsional Strength (Nm)
8.8	15.3	13.2

Values given are averages obtained under lab conditions. Appropriate safety factors need to be applied for design purposes.

Corrosion Performance

Buildex® Teks® 12-14 x 20mm fasteners comply to Australian Standards AS3566.2 Class 3 under real world testing.