

**SPAX**<sup>®</sup>

# SPAX FAVOURITES

The smarter  
solutions.

**SPAX**<sup>®</sup>

**MADE IN  
GERMANY**



## **A Global Brand. A German Product. A Local Company.**

### **A Global Brand**

Founded in 1823, Altenloh, Brinck & Co was the first company to undertake the industrial production of screws in Germany. In 1967 the company revolutionised the industry worldwide with the invention of the SPAX universal screw.

### **A German Product**

At SPAX, we do not compromise on quality. Every SPAX product is designed and manufactured for a specific application. We guarantee that when used correctly, SPAX products will perform way beyond any inferior or cheaper product on the market.

### **A Local Company**

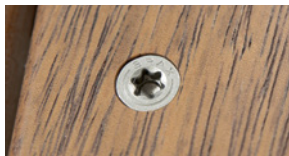
In the Australian/New Zealand market, more and more builders, developers, architects, councils and landscape architects have discovered the advantages of dealing with a local company that's fully backed by a global corporation

### **Why Choose SPAX?**

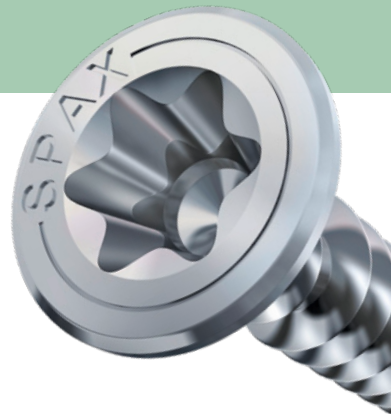
SPAX screws are designed to save you time, reduce your project costs and to outlast the lifetime of your project.



Inferior screws can lead to splitting, increased project costs and a poor finish.



SPAX screws give a superior finish, durability that can outlast your project and low maintenance.



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Australia: 07 4056 2009 NZ: 09 570 7447



Waitomo Caves Visitors Centre



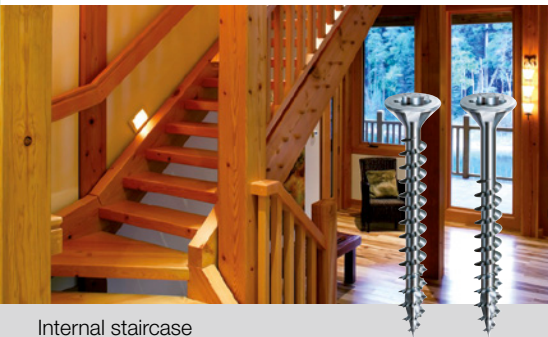
Private waterfront deck



Rural road bridge, Noosa Shire Council



Macquarie University Incubator



Internal staircase



Mooloolaba Harbour Boardwalk



**SPAX**®

DECKING

## THE IDEAL STAINLESS STEEL SCREW FOR TIMBER DECKING



### **SPAX Decking Screw**

particularly suited for coastal and corrosive areas

- Available in 304 A2 or 316 A4 stainless steel
- Permanent protection against corrosion
- Also suitable for 140x19 decking boards
- Cylinder head
- Fixing thread
- *CUT* point
- Easy screwing\*
- SPAX typical ground serrations
- T-STAR *plus* recess

\* We recommend pre-drilling

#### IMPORTANT

Scan QR code for instructions before using this product.



**A2**  
1.4567  
AISI 304

**A4**  
1.4578  
AISI 316

INOX  
STAINLESS STEEL

**MADE IN**  
  
**GERMANY**



## The ideal Stainless Steel Screw for Timber Decking

### SPAX Decking Screw

Stainless steel A2/304

**A2**  
AISI 304

**A2**

Thread- Ø d1	Dimensions [mm]			BIT size <b>T</b>	Packaging unit SPAX Box [pieces]	SPAX-No.
	Length total <b>Ls</b>	Maximum board- thickness	Length partial thread <b>LgT</b>			
<b>5.0</b> Ø d <sub>k</sub> = 7.0 mm	40	12	21	25	200	0537000500403
	50	19	21	25	200	0537000500503
	60	24	26	25	100	0537000500603
	70	28	31	25	100	0537000500703
	80	32	36	25	100	0537000500803

### SPAX Decking Screw

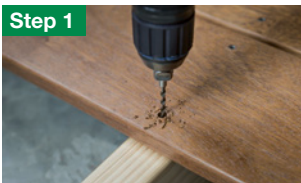
Stainless steel A4/316

**A4**  
AISI 316

**A4**

Thread- Ø d1	Dimensions [mm]			BIT size <b>T</b>	Packaging unit SPAX Box [pieces]	SPAX-No.
	Length total <b>Ls</b>	Maximum board- thickness	Length partial thread <b>LgT</b>			
<b>6.0</b> Ø d <sub>k</sub> = 7.0 mm	40	12	23	25	200	0538000600403
	50	19	23	25	100	0538000600503
	60	24	28	25	100	0538000600603
	80	32	40	25	100	0538000600803
	100	40	40	25	100	0538000601003

**Step 1**



**Step 2**



**Result**



**Step 1:** Drill the boards and substructure with a SPAX Step Drill. Use the complete length of the drill at the highest possible speed (around 3,000 rpm).

**Step 2:** Drive the decking screw straight in with a T-STAR *plus* T25 bit without stopping until the head is flush.

**Result:** Impeccable visual appearance with minimal splitting. Long lasting connection with minimum movement due to fixing thread.

# SPAX®



Photo courtesy of Aussie-World

OUTDOOR

## THE SPAX SOLUTION FOR CONNECTING TIMBER-TO-STEEL IN DELTA®-SEAL

### SPAX Timber-to-Steel Screw

For wooden decks and walls

The SPAX advantages:

- T-STAR *plus* recess
- Cylinder head
- Fixing thread
- SPAX Drill Point
- DELTA®-SEAL

**DELTA®-SEAL**

Please see installation tips on back page



SPAX Step drill 5  
5000009196540



SPAX Air  
4009422545009

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# The SPAX solution for connecting timber to steel in DELTA®-SEAL

The SPAX Timber-to-Steel Screw for board thicknesses of 16–22 mm and 35–50 mm. It is ideal for fastening fencing, screening, decking\* or fibre cement board to steel joists.

**Do not use an impact driver to drive SPAX screws – use a normal drill at high speed.**

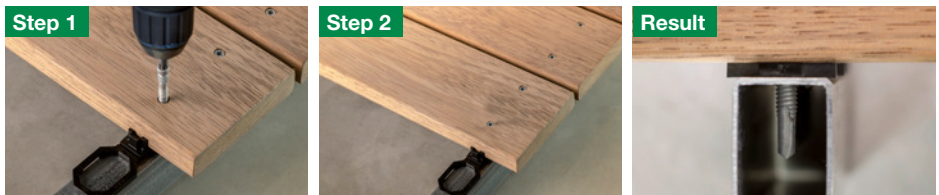
**Step 1:** Pre-drill the timber boards with a SPAX Step-drill 5. There is no need to pre-drill the steel, as the specially designed tip of the Timber-to-Steel Screw will pre-drill steel up to 5mm thick (minimum recommended steel thickness is 1.6mm). Adjust your SPAX Step-drill 5 so that when the tip hits the steel joist, the step bit cuts 1-2mm into the surface of the board. On all horizontal applications eg. decking, make sure to use a SPAX Air Spacer to allow space for timber and metal shavings. The Air Spacer also ensures the timber and steel are not in contact, to prevent corrosion.

**Step 2:** Make sure to adjust your SPAX Drive Stop to the appropriate depth. You may need to test this on an offcut. Drive the Timber-to-Steel Screw straight in with a SPAX Drive Stop at high speed (1,000–2,500 rpm). The SPAX Drive Stop will ensure that all screw heads are driven to the correct depth.

**Result:** Impeccable visual appearance with minimal splitting. Long-lasting connection with minimum movement due to the fixing thread.

It is important to follow the above steps and to use the recommended system to avoid any screw failures.

\* Check with your local building authority about fastening timber decking to steel joists.



## SPAX Cylinder head 5 mm

DELTA®-SEAL

Thread- Ø d1	Dimensions [mm]				BIT size <b>T</b>	Packaging unit SPAX Box [pieces]	SPAX-No.
	Board- thickness	Length total <b>Ls</b>	Length partial thread <b>LgT</b>				
<b>5.0</b> Ø d <sub>k</sub> = 7.0 mm	16–22	44	20	25	500	35905000802641	
	35–50	71	20	25	350	35905000801641	

The SPAX logo is displayed in white text on a green rectangular background. The letters 'S', 'P', and 'A' are in a bold, sans-serif font, while the 'X' is also bold but has a registered trademark symbol (®) to its upper right. The 'X' is partially enclosed by a white circular outline.

OUTDOOR

## THE SPAX SOLUTION FOR CONNECTING TIMBER TO ALUMINIUM



### **SPAX Timber-to-Aluminium Screw**

For wooden decks, walls and fencing

The SPAX advantages:

- T-STAR *plus* recess
- Cylinder head
- Fixing thread
- SPAX Drill Point
- 304 Stainless Steel

Please see installation tips on back page



SPAX Step drill 5  
5000009196540



SPAX Air  
4009422545009



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# The SPAX solution for connecting timber to aluminium

The SPAX Timber-to-Aluminium Screw for board thicknesses of 19–27 mm. It is ideal for fastening fencing, screening, decking\* or fibre cement board to aluminium joists.

**Do not use an impact driver to drive SPAX screws – use a normal drill at high speed.**

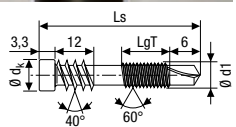
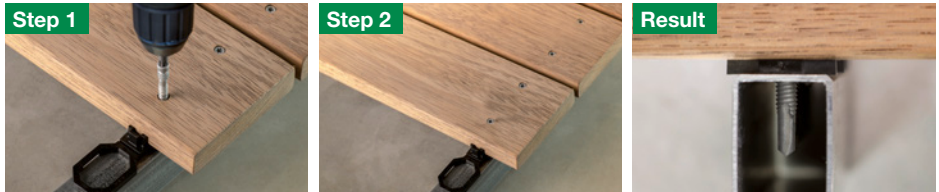
**Step 1:** Pre-drill the timber boards with a SPAX Step-drill 5. There is no need to pre-drill the aluminium, as the specially designed tip of the Timber-to-Aluminium Screw will pre-drill aluminium up to 5 mm thick (recommended aluminium thickness for softwood is 3.0 mm, hardwood 4.0 mm). Adjust your SPAX Step-drill 5 so that when the tip hits the aluminium joist, the step bit cuts 1--2 mm into the surface of the board. On all horizontal applications eg. decking, make sure to use a SPAX Air Spacer to allow space for timber and aluminium shavings. The Air Spacer also ensures the timber and aluminium are not in contact, to allow ventilation.

**Step 2:** Make sure to adjust your SPAX Drive Stop to the appropriate depth. You may need to test this on an offcut. Drive the Timber-to-Aluminium Screw straight in with a SPAX Drive Stop at high speed (1,000–2,500 rpm). The SPAX Drive Stop will ensure that all screw heads are driven to the correct depth.

**Result:** Impeccable visual appearance with minimal splitting. Long-lasting connection with minimum movement due to the fixing thread.

It is important to follow the above steps and to use the recommended system to avoid any screw failures.

\* Check with your local building authority about fastening timber decking to aluminium joists.



**SPAX Cylinder head 5 mm**  
Stainless Steel A2/304

Thread- Ø d1	Dimensions [mm]				BIT size <b>T</b>	Packaging unit SPAX Box [pieces]	SPAX-No.
	Board- thickness	Length total <b>Ls</b>	Length partial thread <b>LgT</b>				
<b>5.0</b>	19	44	20		25	100	0557000500443
Ø d <sub>k</sub> = 7.0 mm	24	48	20		25	100	0557000500483
	27	51	20		25	100	0557000500513



TIMBER CONSTRUCTION

## THE EASY, ECONOMICAL REPLACEMENT FOR COACH SCREWS

T-STAR *plus*



Washer Head



4CUT



Ground Serration/4CUT



### Applications

Ideal for retaining walls, garden beds, boardwalks, pergolas, framing and roof structures. Available in 304 Stainless Steel or DELTA®-SEAL.



**DELTA®-SEAL**

Superior corrosion protection, especially in CCA/ACQ treated timber

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# Washerhead Screws

## The easy, economical replacement for coach screws

- Available in DELTA®-SEAL or 304 A2 stainless steel
- Wide overlying washer head design
- Ideal for playground equipment, pergolas, porches, bridges, balconies & other outdoor construction
- Better tightening of connections & warped boards
- Higher beam supporting forces means less screws
- SPAX typical ground serrations
- T-STAR *plus* recess

### Washer head T-STAR *plus*

Length [mm]	Thread Diameter		
	6.0	8.0	10.0
	Head Diameter		
	13.6	20.0	25.0
50		■ ●	
60	■ ●	■ ●	
80	■ ●	■ ●	■ ●
100	□ ●	■ ●	■ ●
120	□ ●	■ ●	■ ●
140	□ ●	□ ●	□ ●
160	□ ●	□ ●	□ ●
180	□ ●	□ ●	□ ●
200		□ ●	□ ●
220		□ ●	□ ●
240		□ ●	□ ●
260		□ ●	□ ●
280		□ ●	□ ●
300		□ ●	□ ●
320			□ ●
340			□ ●
360			□ ●
380			□ ●
400			□ ●
450			□ ●

■ T-STAR *plus*, full thread   □ T-STAR *plus*, partial thread  
 ● Delta®-Seal   ● Stainless steel A2 304



# SPAX®



TIMBER CONSTRUCTION

## NEW SPAX 6 mm AND 8 mm COUNTERSUNK UNIVERSAL SCREW IN A2/304 STAINLESS STEEL



T-STAR *plus*



MULTI Head



4CUT



Ground Serration/4CUT



### Applications

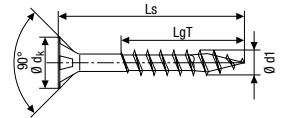
Ideal to use on any outdoor timber structure including replacing failed batten screws.



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- For timber structures where flush countersinking is necessary
- Higher load capacities than traditional screws
- Quick and easy installation with low installation torque saving tool and battery life
- 8 mm to 12 mm diameter available in DELTA®-SEAL



## SPAX Countersunk Universal Screw

Stainless Steel A2/304

Thread- $\emptyset$ d1	Dimensions [mm]			Packaging unit SPAX Box [pieces]	SPAX-No.	EAN-Code
	Length total Ls	Length partial thread LgT	BIT size T			
<b>6.0</b> $\emptyset d_k =$ 11.6 mm	60	37	30	100	0197000600603	4003530091988
	70	41	30	100	0197000600703	4003530091995
	80	46	30	100	0197000600803	4003530092008
	90	61	30	100	0197000600903	4003530092015
	100	61	30	100	0197000601003	4003530092022
	120	68	30	100	0197000601203	4003530097775
	140	68	30	100	0197000601403	4003530097782
	160	65	30	100	0197000601603	4003530098727
<b>8.0</b> $\emptyset d_k =$ 15.1 mm	80	47	40	50	0197000800805	4003530257292
	100	57	40	50	0197000801005	4003530257308
	120	70	40	50	0197000801205	4003530257315
	140	80	40	50	0197000801405	4003530257322
	160	80	40	50	0197000801605	4003530257339
	180	80	40	50	0197000801805	4003530257346
	200	80	40	50	0197000802005	4003530257353
	220	80	40	50	0197000802205	4003530257360
	240	80	40	50	0197000802405	4003530257377
	260	80	40	50	0197000802605	4003530257384
	280	80	40	50	0197000802805	4003530257391
	300	80	40	50	0197000803005	4003530257407

The SPAX logo is displayed in white text on a green rectangular background. The letters 'S', 'P', and 'A' are in a bold, sans-serif font, while the 'X' is also bold but has a circular outline around it. A registered trademark symbol (®) is located to the upper right of the 'X'.

# SPAX®

CONSTRUCTION OUTDOOR

## SPAX BOUNDARY JOIST AND POST FIXING SOLUTION

Complies with strength and deflection requirements of NZS 3604 and AS/NZS1170

The SPAX advantages:

- Three times faster installation than other common methods
- PS1 Producer Statement available on request
- No brackets or coach screws required
- Higher load capacity allowing larger baluster spacings
- Exceptional durability with A4/316 stainless steel
- Aesthetically appealing
- Cost effective

IMPORTANT

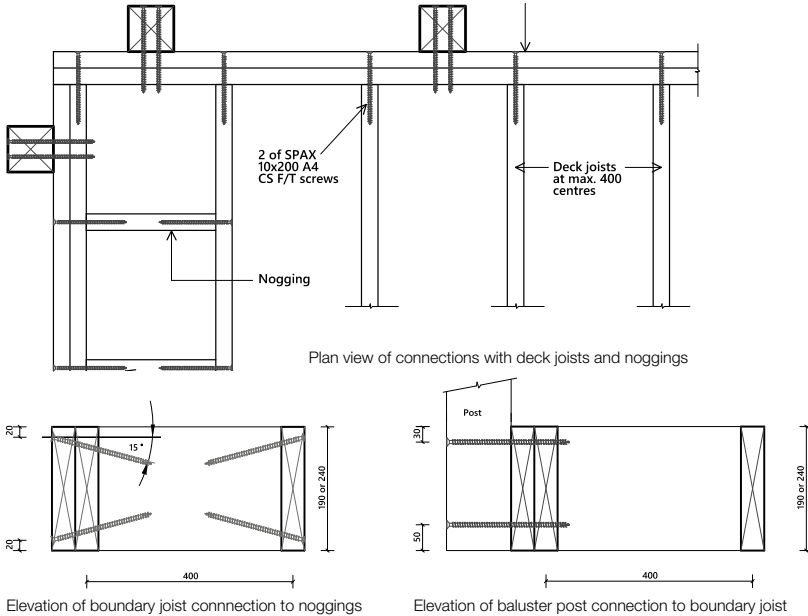
Scan QR code for instructions before using this product.



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# The SPAX solution for fixing boundary joists and baluster posts



## SPAX Boundary Joist and Post System\*

Item	Description	Drive-Bit Size	SPAX-No.	EAN-Code
	SPAX 10 x 200 A4 CS F/T	T50	1208001002000	4003530182303
	SPAX 10 x 240 A4 CS. F/T	T50	1208001002400	4003530178689
	SPAX 8 x 120 A2 W/H	T40	0257000801200	4003530242595
	SPAX 8 x 180 A2 W/H	T40	0257000801800	4003530242625
	SPAX Drill-bit Ø 6.0 x 250 HSS-G		2000000250060	4026271029881
	SPAX Boundary Joist Pre-Drill Guide 15°		3000001000015	0794712213543
	SPAX T-STAR plus T40		5000009182409	4003530239687
	SPAX T-STAR plus T50		5077701515035	4003530161582

\* Refer to installation instructions for full details, dimensions and technical information on both face-fixed post and top-fixed post systems.



TIMBER CONSTRUCTION

## SPAX BEAM-TO-POST FIXING SOLUTION



Item	Description	For Beam Size	Drive-Bit Size	SPAX-No.	EAN-Code
	SPAX 10x180 Delta-Seal W/H	90 x 90	T50	0251641001800	4003530242694
	SPAX 10x220 Delta-Seal W/H	140 x 90	T50	0251641002200	4003530242717
	SPAX 10x280 Delta-Seal W/H	190 x 90	T50	0251641002800	4003530242748
	SPAX 10x300 Delta-Seal W/H	240 x 90	T50	0251641003000	4003530242755
	SPAX 6x180 Delta-Seal Cyl/H. F/T	90 x 90	T30	1211640601805	4003530184802
	SPAX 8x240 Delta-Seal Cyl/H. F/T	140 x 90	T40	1221640802405	4003530241147
	SPAX 8x280 Delta-Seal Cyl/H. F/T	190 x 90	T40	1221640802805	4003530241161
	SPAX 8x350 Delta-Seal Cyl/H. F/T	240 x 90	T40	1221640803505	4003530241185
	SPAX Post to Beam Screw Guide 15°			3000002000015	0794712213550
	SPAX T-STAR plus T30 25 mm			5000009182309	4003530239670
	SPAX T-STAR plus T40 25 mm			5000009182409	4003530239687
	SPAX T-STAR plus T50 35 mm			5077701515035	4003530161582





# Beam to Post – continuous beam

- Cost-effective and easy to install
- Invisible connection – no brackets required
- High load capacity to resist wind uplift
- Long lasting durability

## Installation instructions

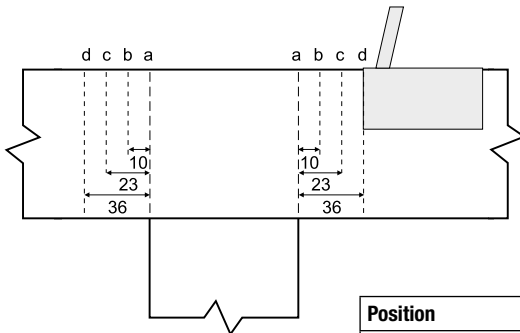
1. Mark the washer head screw location on the top of the beam to coincide with the centre of the post. Drive the washer head screw vertically through beam using a rotary drill-driver only. When two beams join over the post, use a 50mm square washer under the head of the screw.
2. Clamp the beam-to-post drilling template into position on the top of the beam as shown below.
3. Install two cylinder head screws along the template guides to achieve the correct angle. Move the template to the opposite side of the post and repeat for the other two screws. No need to pre-drill in pine but pre-drilling to the full depth of the screw is required in hardwood using the drill diameters as shown below.

**Note: Do not use an impact driver to install the screws.**

4. The washer head screw may be removed if desired after the cylinder head screws are installed.

## Positioning of screw guide

Draw a line extending the edges of the post to the top of the beam. Then position the end of the drilling template as shown in the diagram and table below, depending on the size of the beam, e.g. for a 90 x 90 beam, the edge of the template is placed on the extension line in position “a”.



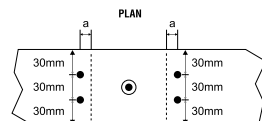
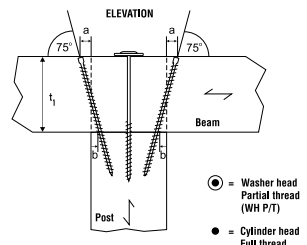
## Drill bit diameters

		Screw diam. $d_1$ (mm)	
		6	8
Drill diam.	Softwood	4.0	5.0
	Hardwood	4.0	6.0

	Beam			
	90x90	140x90	190x90	240x90
Position	a	b	c	d
Distance from post line	0 mm	10 mm	23 mm	36 mm

## Characteristic Uplift Load Data

		Beam			
		90x90	140x90	190x90	240x90
Post 90 x 90	WH P/T	10 x 180	10 x 220	10 x 280	10 x 300
	Full Thread	6 x 180	8 x 240	8 x 280	8 x 350
	$F_{Bk,cl,Rk}$	<b>21.9 kN</b>	<b>31.9 kN</b>	<b>28.1 kN</b>	<b>34.3 kN</b>
	a (mm)	14	24	37	50
	b (mm)	10	14	14	14



- Design criteria is according to SPAX ETA 12/0114
- $F_{Bk,cl,Rk}$  is the characteristic load of four cylinder head full thread screws in radiata pine (characteristic density of 370 kg/m<sup>3</sup>)
- The appropriate modification factors must be applied to determine design load
- All dimensions are in mm
- PS1 Producer Statement available

TIMBER CONSTRUCTION

## WALL PLATE TO STUD FIXING

The use of SPAX washer head screws is a much quicker and easier method of attaching top and bottom plates to studs compared with steel plate and strap connections.

### Washer head screw

The SPAX advantages:

- Easy to install. Faster and less torque required compared with traditional screws.
- Cost-effective compared with plates and straps.
- Washer head can be countersunk below timber surface.
- DELTA-SEAL coating provides very high corrosion protection and is ideal for use in treated timber.
- Made in Germany for guaranteed quality.



T-STAR *plus*

Ensures maximum torque transfer when driving screws.



Washer Head

Large head for high clamping force to pull the two timbers together.



Ground Serration/4CUT

No pre-drilling (wood dependent), reduces splitting. Square end displaces the fibres and reduces screwing in torque.



Certified proof of origin offers a high degree of safety, quality and continuity.



### Installation instructions:

- Standard framing nails may be driven in, if desired, to avoid the stud twisting during screw installation.
- Choose the correct screw size from the table below, according to plate thickness and required load.
- Drive the screw through the plate into the centre of the stud end face until the screw head is below the surface of the plate. Use T-STAR *plus* T30 drive bit for 6mm screw and T-STAR *plus* T40 for 8 mm screw (No need to pre-drill in radiata pine. Pre-drill in LVL and hardwood, 4 mm drill bit for 6 mm screw and 6 mm drill bit for 8 mm screw.).

#### DELTA®-SEAL

Superior corrosion protection,  
especially in CCA/ACQ treated timber

High corrosion protection from the exclusive DELTA-SEAL coating, providing twice the corrosion protection compared to hot-dipped galvanised products. Ideal for CCA and ACQ treated timbers, all hardwoods and suitable for any external use away from direct exposure to salt water. Large range of stainless steel screws also available.

For more information on SPAX screws, visit our website at [www.spaxpacific.com](http://www.spaxpacific.com).

### Design Load Data

Joint Group	Plate Thickness (mm)	Design Uplift Capacity (kN) per screw size		
		SPAX 6x120 WH	SPAX 6x140 WH	SPAX 8x140 WH
JD4 as per AS 1720	35	6.88	6.88	8.83
	45	6.88	6.88	8.83
	70	5.06	6.88	7.73
	80	4.04	6.07	6.62
	90	NA	5.06	5.52
JD5 as per AS 1720	35	5.46	5.46	7.06
	45	5.46	5.46	7.06
	70	4.02	5.46	6.18
	80	3.21	4.82	5.30
	90	NA	4.02	4.42
J4 as per NZS 3603	35	4.78	4.78	6.18
	45	4.78	4.78	6.18
	70	3.51	4.78	5.41
	80	2.81	4.21	4.63
	90	NA	3.51	3.86

- Load data obtained from testing according to AS1649. Test report available on request.
- Design capacities are for one SPAX washer head screw in withdrawal from the end grain of radiata pine.

**SPAX PACIFIC PTY. LTD.**

ALTENLOH, BRINCK & CO - GROUP SINCE 1823

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Phone: 09 570 7447 · [info@spaxpacific.co.nz](mailto:info@spaxpacific.co.nz)

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-  [youtube.com/channel/UCFwam99WizAuVzJGfhf8rLw](https://youtube.com/channel/UCFwam99WizAuVzJGfhf8rLw)

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**SPAX**® GOES GREEN!

We endorse climate-neutral printing  
on paper from responsible sources –  
for you and for our environment.