

# Beam to Post - Beam End



Timber Construction

## SPAX beam-to-post fixing solution

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

Item	Description	For Beam Size	Drive Bit	SPAX No.	EAN No.
	SPAX 10 x 180 Delta-Seal W/H	90 x 90	T50	0251641001800	4003530242694
	SPAX 10 x 220 Delta-Seal W/H	140 x 90	T50	0251641002200	4003530242717
	SPAX 10 x 280 Delta-Seal W/H	190 x 90	T50	0251641002800	4003530242748
	SPAX 8 x 200 Delta-Seal Cyl/H. F/T	90 x 90	T40	1221640802005	4003530241123
	SPAX 8 x 240 Delta-Seal Cyl/H. F/T	140 x 90	T40	1221640802405	4003530241147
	SPAX 8 x 280 Delta-Seal Cyl/H. F/T	190 x 90	T40	1221640802805	4003530241161
	SPAX Post to Beam Screw Guide 15°			3000002000015	0794712213550
	SPAX T-STAR <i>plus</i> T40 25mm			5000009182409	4003530239687
	SPAX T-STAR T50 35mm			5077701515035	4003530161582

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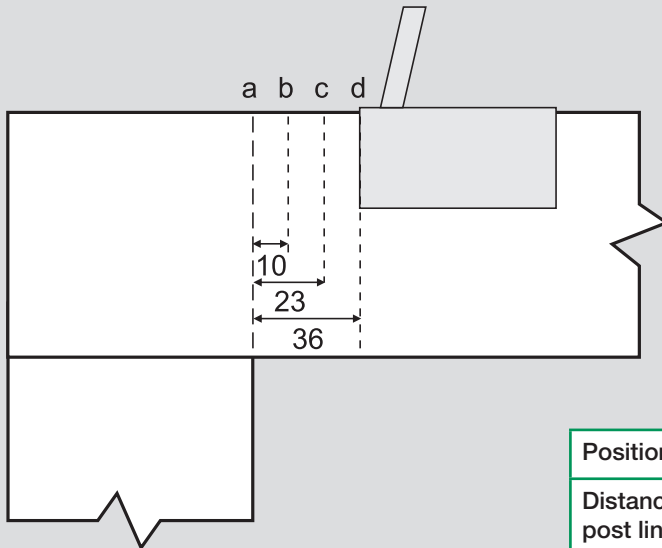


## Installation instructions

1. Mark the washer head screw location on the top of the beam to coincide with the centre of the post. Drive washer head screw vertically through beam using a rotary drill-driver only.
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. 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: Use a rotary drill-driver only to install the screws.
4. The washer head screw must then be removed before the third cylinder head screw is installed.
5. Install the cylinder head screw closest to the end according to the measurements below.

## 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 <sub>1</sub> (mm)	
		6	8
Drill diam.	Softwood	4.0	5.0
	Hardwood	4.0	6.0

	Beam		
	90 x 90	140 x 90	190 x 90
Position	a	b	c
Distance from post line	0mm	10mm	23mm

### Characteristic Uplift Load Data

		Beam		
		90 x 90	140 x 90	190 x 90
Post 90 x 90	WH P/T	10 x 180	10 x 220	10 x 280
	Full Thread	8 x 200	8 x 240	8 x 280
	F <sub>ax,α,Rk</sub>	21.2 kN	21.6 kN	18.9 kN
	e (mm)	14	24	37
	f (mm)	10	14	14
	g (mm)	28	20	10
	h (mm)	52	58	62

- Design criteria is according to SPAX ETA 12/0114
- F<sub>ax,α,Rk</sub> 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
- PS1 Producer Statement available

