Timber Construction Application Sheet No. 3



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 study compared with steel plate and strap connections.



Washer head screw



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.

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.



Wall Plate to Stud Fixing (cont.)

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 over the page, 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 T-30 drive bit for 6mm screw and T-STAR plus T-40 for 8mm screw (No need to pre-drill in radiata pine. Pre-drill in LVL and hardwood, 4mm drill bit for 6mm screw and 6mm drill bit for 8mm screw.).

SPAX washer head screw advantages





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.



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.

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