

SDPW — Deflector Screw

Material: Carbon Steel & Polymer

Finish: E-coat®

Corrosion Resistance Level
LOW

Size: See illustration on the right and table below

Features & Benefits

- Pre-drill bit bores its own hole eliminating the screw from following the timber grain that could cause a miss-installation into the truss/joist.
- Polymer sleeve allows for sliding during deflection, preventing squeaks
- E-coat® for dry service applications and is compatible with treated timber
- Offset driver bit (6-lobe) securely drives SDPW Deflector screw to predetermined screw depth
- Extension allows for overhead installations eliminating the use of a ladder
- Available in three lengths to suit various scenarios
- US Patent 8,458,972 applies to Strong-Drive SDPW Solution
- US Patent 9,523,383 applies to 152mm (6") SDPW Deflector fasteners

Application

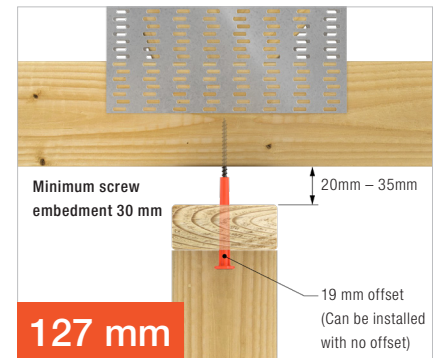
- Non-load bearing wall connections to truss/joists (including I-joists)

Construction Details

SDPW14500



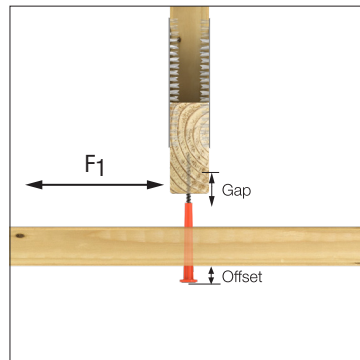
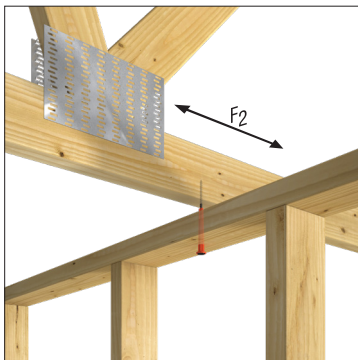
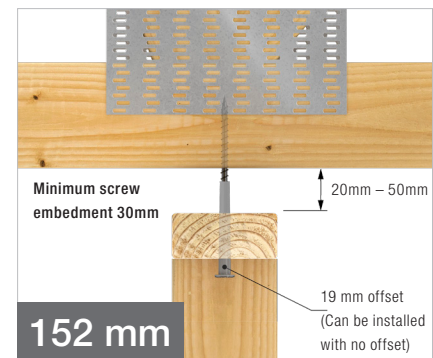
For single 35 mm top plate connections, providing a 20 – 35 mm gap (between top plate and truss/joist)



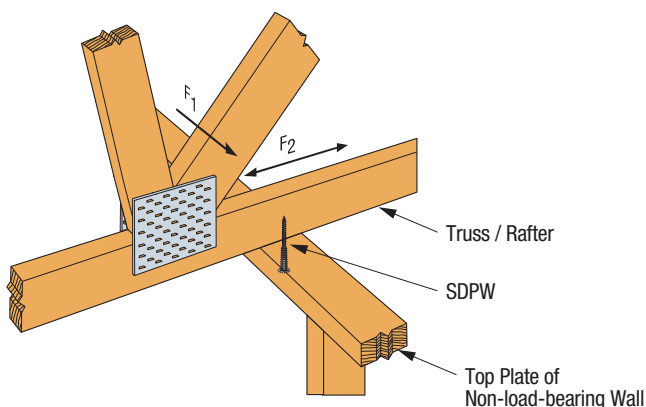
SDPW19600



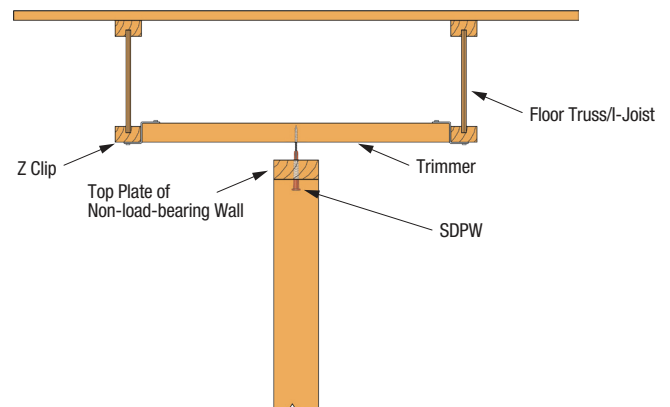
For single 35 mm/45 mm top plate shear connections, providing a 20 – 50 mm gap (between top plate and truss/joist)



Typical Installation of SDPW Deflector Screw Showing Load Directions, Gap, and Offset



SDPW Wall Plate to Truss/Rafter Installation



SDPW Wall Plate to Floor Truss/I-Joist Installation

SDPW — Deflector Screw

SDPW Technical Data

Table 1. Characteristic Shear Loads (F1 and F2) for SDPW DEFLECTOR screws that connect a Non-Loadbearing Internal Wall and the Supporting Member

Model	Size (mm)	Thread Length (mm)	Min. Embedment (mm)	Top Plate Thickness (mm)	Characteristic Lateral Load (N)							
					Offset = 0mm Gap				Offset = 19mm Gap			
					10mm	19mm	35mm	50mm	10mm	19mm	35mm	50mm
SDPW14500	3.5 x 127	51	30	45	1320	1320	1320	N/A	980	620	425	N/A
SDPW19600	5.0 x 152	70	30	35	3370	3370	3370	1830	3370	3370	3370	1830
				45	3070	3070	3070	1830	3070	3070	3070	1830

- Characteristic shear loads are based on AS1649 analysis of tested connections in JD5 and are compatible with AS1720.1-2010. These represent normal duration of load. Adjust when other load durations govern.
- Screw spacing shall be determined by a designer.
- I-Joist shall have minimum flange thickness of 28.5 mm.
- The SDPW DEFLECTOR screw is preferably driven with Simpson Strong-Tie offset driver bit for the 19-mm offset installation.
- The non-loadbearing internal wall top plate-to-stud and top-plate splice connections shall be fastened per applicable building code.
- Cells with "NA" represent conditions that should not be built using the SDPW DEFLECTOR screws.
- For walls up to a maximum of 3m high, Deflector Screws installed into non-loadbearing internal walls at 1800mm centres, comply with clause 6.2.5.2 of AS1684 and clause 2.2.3 of AS4440 and can be used instead of internal wall brackets on residential buildings. All timber plates to be 35mm and for SDPW14312 maximum 10mm gap, SDPW14500 maximum 35mm gap & SDPW19600 maximum 50mm gap

Shear connections with SDPW Deflector Screws above bracing walls

Application to trusses running parallel or perpendicular to wall

Bracing Unit	Brace Length (mm)	JD5 Capacity (kN)	Deflector Screw Requirement (152mm Grey)
1.5 kN/m	1800	2.7	1
	2100	3.2	
	2400	3.6	2
	2700	4.1	
3.0 kN/m	1800	5.4	2
	2100	6.3	
	2400	7.2	3
	2700	8.2	
6.0 kN/m	900	5.4	2
	1500	9.0	3

- Grey SDPW19600 screw above to have a 35mm gap. Gaps up to 50mm is allowed but screw quantities are to be doubled.

Specifications - SDPW

Model No.	Size (mm)	Thread Length (mm)	Head Dia. (mm)	Sleeve Length (mm)	Sleeve Colour	Thread	Point	Material & Finish	Box Qty	Drive Size	Replacement Bit
SDPW14500-R50	3.5 x 127	51	14	76	Orange	Coarse Threads	Type-17	Carbon Steel Polymer E-coat®	50	T-25, 6-lobe	BIT25T-2-RC3
SDPW14500MB									500		
SDPW19600-R50	5.0 x 152	70	16.5	76	Grey				50	T-40, 6-lobe	BIT40T-134-RC3
SDPW19600MB									400		

Note: 50 packs are 6 per carton and include (1) offset driver bit and (1) 3/8" predrill bit. Bulk packs include (2) offset driver bits and (2) 3/8" predrill bits.

Specifications - SDPW Accessories

Model No.	Name	Description	Packs/Ctn
PWKIT25T	T25 Bit Kit	1 x Quick Release Predrill Bit (5/8" x 5") / (9.5mm x 127mm) 2 x T25 Offset Driver Bits	12
PWKIT40T	T40 Bit Kit	1 x Quick Release Predrill Bit (5/8" x 5") / (9.5mm x 127mm) 2 x T40 Offset Driver Bits	12
PW18EXT	Extension	1 x Extension 450mm	15

- Offset Driver Bit included in every pack and required
- Drill Bit 3/8" (9.5 mm) x 5" (127mm) included in every pack and required
- Extension 450mm PW18EXT (sold separately)