# **SDWS** — Timber Screw

### Material: Carbon Steel

Finish: Double Barrier Coating (Suitable for interior, treated timber and external applications) Corrosion Resistance Level

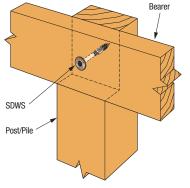
### Size: See table below Features & Benefits

- 6-lobe, T-40 drive eliminates cam outs, for easier installations and longer bit life — bit(s) included
- Head stamped for easy identification of length and diameter, for building certification
- Large Washer Head provides superior clamping, while nibs offer greater control for the installer when seating the head
- Bold Threads design provides superior holding power, even into the end grain of timber
- Patented SawTooth™ Point for faster starts, less torque and no pre-drilling

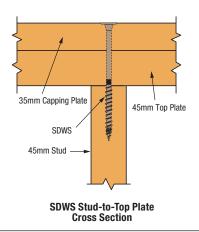
#### Application

- Outdoor Structures
- Deck Frames and Ledgers
- Landscaping
- Structural Timber Framing It replaces strapping, which means, no interference with wall cladding

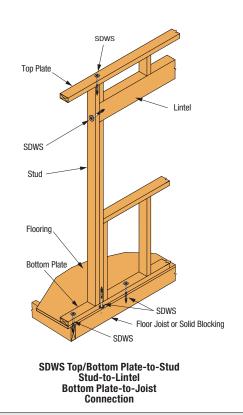
### **Construction Details**



SDWS Bearer-to-Post/Pile Connection



Simpson Strong-Tie® (New Zealand) Ltd Call 09 477 4440 www.strongtie.co.nz







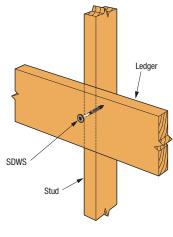
6-lobe, 1-40 drive eliminates cam-outs, for easier installations and longer bit life. Head Stamped for easy identification of length and diameter, for building certification.



Large **Washer Head** provides superior clamping, while nibs offer greater control for the installer when seating the head



Patented **SawTooth<sup>™</sup> Point** for faster starts, less torque and no pre-drilling



SDWS Ledger-to-Stud Connection

This flyer reflects information available as of June 12, 2020 and may be updated periodically. Please visit our website for current information and limited warranty.

## SIMPSON Strong-Tie

# **SDWS** — Timber Screw

#### SDWS Technical Data

#### Table 1. Strong-Drive® SDWS Timber Screw Specifications

Model	Head Marking (##)	Screw Length (mm)	Thread Length <sup>1,2</sup> (mm)	Diameter (mm)			Fastener Strength					
				Shank	Major	Minor	Bending Yield Strength <sup>3</sup> (Mpa)	Characteristic Yield Moment⁴ (kNmm)	Tension⁵ (kN)	Shear⁵ (kN)		
SDWS22300DB	3	76	38	5.6	7.7	5.0	1103	17.9	10.5	6.1		
SDWS22400DB	4	102	60									
SDWS22500DB	5	127	70									
SDWS22600DB	6	152					1207					
SDWS22800DB	8	203										
SDWS221000DB	10	254										

1. For the purpose of measuring overall length, fasteners shall be measured from the underside of the head to bottom of the point.

Length of thread includes the point.

 Bending yield strength determined following ASTM F1575 and based on minor thread diameter.  Characteristic yield moment determined following EU14358 and based on minor thread diameter.

 Tension and shear properties are based on 0.5 of the average maximum load for screws tested in tension and shear, respectively. Shear strength is shear through the threads.

### Table 2. Strong-Drive® SDWS Timber Screw Limit States-Reference Characteristic Load Values (N) for Timber-to-Timber Connections<sup>1,2,3,4,5</sup>

Model	Screw Length (mm)	Timber Joint Group	Characteristic Shear Loads (N)									Characteristic Withdrawal Capacity (N/mm)6	
			Timber Side Member Thickness										
			35	45	63	70	90	100	115	150	200	Face Grain	End Grain <sup>7</sup>
SDWS22300DB	76	JD4	6630	_	—	_	—	—	_	—	_	88	62
		JD5	4995	_	_	_	_	-	_	_	_	82	50
SDWS22400DB	102	JD4	7400	6100	6100	_	_	—	-	—	—	112	69
		JD5	6000	6000	4545	-	_	-	_	_	_	91	54
SDWS22500DB	127	JD4	7400	7400	6100	5655	5655	_	_	_	_	134	110
		JD5	6000	6000	6000	3920	3920	-	_	_	_	93	78
SDWS22600DB	152	JD4	7550	7550	7550	7550	5865	5865	5840	_	_	134	110
		JD5	6030	6030	6030	6030	5220	5220	4385	_	_	93	78
SDWS22800DB	203	JD4	8055	8055	8055	8055	7040	7040	7040	6100	_	134	110
		JD5	6240	6240	6240	6240	5500	5500	5500	5485	_	93	78
SDWS221000DB	254	JD4	8055	8055	8055	8055	7040	7040	7040	7040	6100	134	110
		JD5	6240	6240	6240	6240	5500	5500	5500	5500	5500	93	78

 Conditions without numbers in the matrix shall not be used.
 The main and side members shall have a minimum density of 530 kg/m<sup>3</sup> for JD4, or 450 kg/m<sup>3</sup> for JD5.

The tabulated characteristic shear loads and withdrawal are for normal duration of load.
 Screws shall be installed straight into the side grain of the wood main

member with the screw axis at a 90-degree angle to the wood fibres.5. Minimum fastener penetration shall be equal to the screw length less the thickness of the wood side member.

6. Tabulated characteristic values for withdrawal are in N/mm of thread length into the main member

of thread length into the main member
7. Withdrawal to end grain values are based on the lesser value of withdrawal from the main member or the characteristic pull-through of the screw through a 35 mm thick side member of the same Joint Group, or tensile strength of the screw.