

NEW!



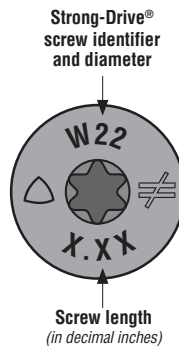
SDW Strong-Drive® Structural Wood Screws



A Fastening Solution for Multi-Ply Truss Assemblies and Engineered-Lumber Applications

The Simpson Strong-Tie® Strong-Drive® SDW wood screw is a 0.22" diameter, high-strength structural wood screw specifically designed to fasten together multi-ply wood members, such as plated trusses, engineered-lumber products and solid-sawn lumber. The SDW installs easily with no pre-drilling and is available in optimized lengths for fastening 2-, 3- and 4-ply trusses or 1 3/4" structural composite lumber (SCL).

With the SDW screw, multi-ply trusses and beams can be fastened from one side without requiring the lifting and flipping of heavy assemblies. The large, flush head eases the handling of assembled girders and simplifies the installation of finishes or structural connectors. Each SDW head is stamped with the Simpson Strong-Tie® "No Equal" symbol and the fastener length for easy identification after installation.



Strong-Drive® SDW Structural Wood Screws Provide An Easy-to-Use, Cost-Effective Solution

- Low-profile head makes stacking and sliding members easier and allows installation of hardware and finishes to be virtually flush
- Patented 4CUT™ tip has a square core and serrated threads to provide fast starts, reduce installation torque and make driving easier with no pre-drilling
- Bold thread design firmly cinches plies together for consistent installation
- Deep, 6-lobe T-40 recess reduces cam-out, making driving easier
- Under head nibs provide the installer with greater installation control when the head meets the wood surface
- Optimal screw lengths provide maximum penetration while preventing the tip from protruding out the back of the member
- Ability to penetrate multi-ply trusses from only one side eliminates the need for truss flipping
- Available in retail, mini-bulk and bulk quantities to suit user needs



LOW-PROFILE HEAD

SDW Strong-Drive® Structural Wood Screws



U.S. Patents 5,897,280; 7,101,133 and patent pending

MATERIAL: Heat-treated carbon steel

FINISH: Black E-coat™

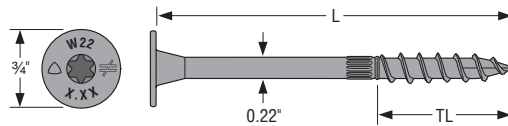
WARNING: Industry studies show that hardened fasteners can experience performance problems in wet or corrosive environments. Accordingly, the SDW wood screws should only be used in dry, interior and non-corrosive environments.

INSTALLATION

- SDW screws install best with a low-speed ½" drill and a T-40 6-lobe bit. The matched bit included with the screws is recommended for best results.
- No pre-drilling is typically required. SDW screws may be installed through metal truss plates as approved by the Truss Designer (*pre-drilling required through the plate using a maximum of 5/32" bit*).
- Screw heads that are countersunk flush to the wood surface are acceptable if the screw has not spun out.



T-40 Bit
(included)



NOTES TO DESIGNER:

1. Factored lateral and withdrawal resistances are based on testing per ICC-ES AC233 and section 10.11 of CSA O86-09.
2. Factored lateral resistances may be increased 15% for short-term load duration ($K_D = 1.15$). For load durations other than standard or short-term, see 4.3.2.2 of CSA O86-09 for reduction values.
3. Fastener spacing, end and edge distances shall conform to Table 10.9.2.1 CSA O86 using a diameter value of 0.30" (*see Table 9*).
4. Maximum fastener spacing is recommended not to exceed 24" on-centre except as approved by a qualified Designer.
5. Structural composite lumber (SCL) is laminated veneer lumber (LVL), parallel strand lumber (PSL) or laminated strand lumber (LSL). Verify the effective specific gravity (SG) with structural composite lumber manufacturer for selection of tabulated values.
6. Factored resistances are based on the capacity of the Simpson Strong-Tie® SDW22 fasteners. The capacity of the multi-ply assembly must be checked by a qualified Designer using the reduced cross-sectional area per 10.2.2.5 CSA O86-09.

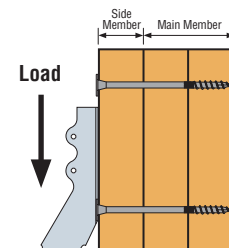
Product Information

Model No. ^{2,3}	Head Stamp Length	Nominal Length (L) (in)	Typical Application ¹	Thread Length (TL) (in)	Retail Box ³ Quantity (1 Bit)	Retail Boxes/ Carton	Mini-Bulk Bucket Quantity ² (1 Bit)	Bulk Bucket Quantity (2 Bits)
SDW22300	3.00	3	2x/Truss	1½	50	6	250	950
SDW22338	3.37	3¾	SCL	1½	50	6	250	900
SDW22458	4.62	4¾	2x/Truss	1½	50	4	200	600
SDW22500	5.00	5	SCL/3x2PCT	1½	50	4	200	600
SDW22600 ⁴	6.00	6	2x/Truss	1½	50	4	200	500
SDW22638 ⁴	6.37	6¾	2x/Truss	1½	50	4	200	500
SDW22634	6.75	6¾	SCL/4x2PCT	1½	50	4	200	500

1. Typical screw application key:
2x/Truss = Solid-sawn dimensional lumber and plated wood trusses.
SCL = 1¼" plies of structural-composite lumber.
SCL/3x2PCT = 1¼" plies of structural-composite lumber or double 3x2 parallel-chord trusses.
SCL/4x2PCT = 1¼" or 3½" plies of structural-composite lumber or double 4x2 parallel-chord trusses.
2. To order mini-bulk buckets add the letters MB to the model number, e.g. SDW22458MB.
3. To order retail pack boxes add "-R50" to the model number, e.g. SDW22458-R50.
4. If assembly is less than or equal to 6¾" thick, use the SDW22600.

Table 1 – Factored Lateral Resistances for Solid Sawn and 2x Truss Loaded on Head Side

Assembly	Model No.	Nominal Length (in)	Side Member Thickness (in)	Factored Lateral Resistance (lbs)	
				D-Fir-L	S-P-F
2-ply 2x/Truss	SDW22300	3	1½	335	290
3-ply 2x/Truss	SDW22458	4¾	1½	455	405
4-ply 2x/Truss	SDW22600	6	1½	455	405
4-ply 2x/Truss	SDW22638	6¾	1½	455	405



Loaded on Head Side
(3-ply assembly shown – other configurations similar)

SDW Strong-Drive® Structural Wood Screws

Table 2 – Factored Lateral Resistances for Solid Sawn and 2x Truss Loaded on Tip Side

Assembly	Model No.	Nominal Length (in)	Side Member Thickness (in)	Factored Lateral Resistance (lbs)	
				D.Fir-L	S-P-F
2-ply 2x/Truss	SDW22300	3	1½	305	260
3-ply 2x/Truss	SDW22458	4¾	3	410	365
4-ply 2x/Truss	SDW22600	6	4½	410	365
4-ply 2x/Truss	SDW22638	6¾	4½	410	365

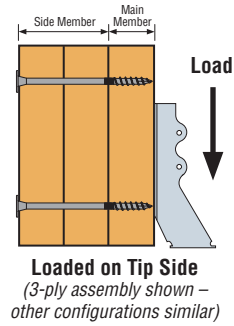


Table 3 – Factored Lateral Resistances for SCL Loaded on Head Side

Assembly	Model No.	Nominal Length (in)	Side Member Thickness (in)	Factored Lateral Resistance (lbs)	
				SG = 0.50	SG = 0.42
2-ply 1¾" SCL	SDW22338	3¾	1¾	390	325
3-ply 1¾" SCL	SDW22500	5	1¾	495	430
4-ply 1¾" SCL	SDW22634	6¾	1¾	495	430
2-ply 3½" SCL	SDW22634	6¾	3½	570	505

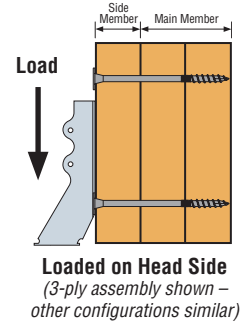


Table 4 – Factored Lateral Resistances for SCL Loaded on Tip Side

Assembly	Model No.	Nominal Length (in)	Side Member Thickness (in)	Factored Lateral Resistance (lbs)	
				SG = 0.50	SG = 0.42
2-ply 1¾" SCL	SDW22338	3¾	1¾	340	285
3-ply 1¾" SCL	SDW22500	5	3½	415	365
4-ply 1¾" SCL	SDW22634	6¾	5½	415	365
2-ply 3½" SCL	SDW22634	6¾	3½	570	490

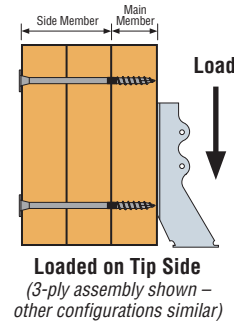
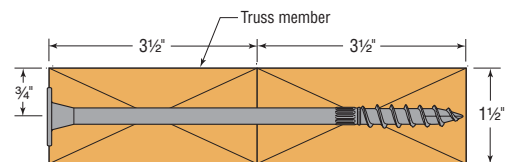


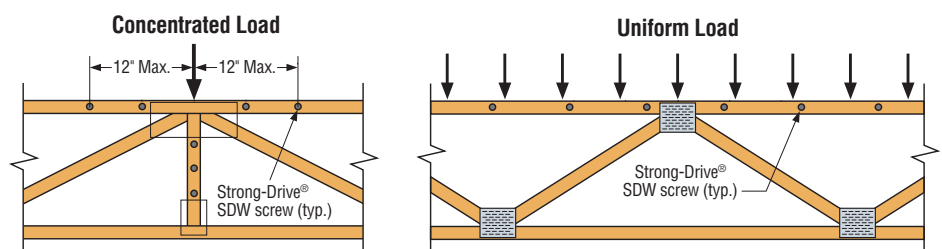
Table 5 – Factored Lateral Resistances for 3x2 and 4x2 Parallel-Chord Trusses

Assembly	Model No.	Nominal Length (in)	Side Member Thickness (in)	Factored Lateral Resistance (lbs)	
				D.Fir-L	S-P-F
2-ply 3x2 PCT	SDW22500	5	2½	405	290
2-ply 4x2 PCT	SDW22634	6¾	3½	405	290

- To transfer uniform loads applied to simply supported spans on assembly top chord:
 - Space screws as required to transfer half the load into the supporting truss.
 - Minimum screw spacing shall be 4" o.c.
- To transfer concentrated loads applied to simply supported spans on an assembly top chord or vertical web:
 - Concentrated loads must be applied at the panel joints.
 - Screws to be installed within 12" of the concentrated load on top-chord assembly
- Gap between the trusses shall not exceed ½" o.c.
- Floor sheathing shall be screwed or nailed to each top-chord ply.
(Fastener spacing per the applicable Code requirements, or 12" o.c.)
- SDW screws shall not be installed in areas where lumber wane exceeds ¼".
- Truss members must be evaluated using a reduced cross-sectional area due to the 0.22" diameter SDW screw.
- Other configurations acceptable as long as approved by Truss Designer.



SDW Screw Position in 2-Ply 4x2 Truss
(2-ply 3x2 similar)



SDW Strong-Drive® Structural Wood Screws

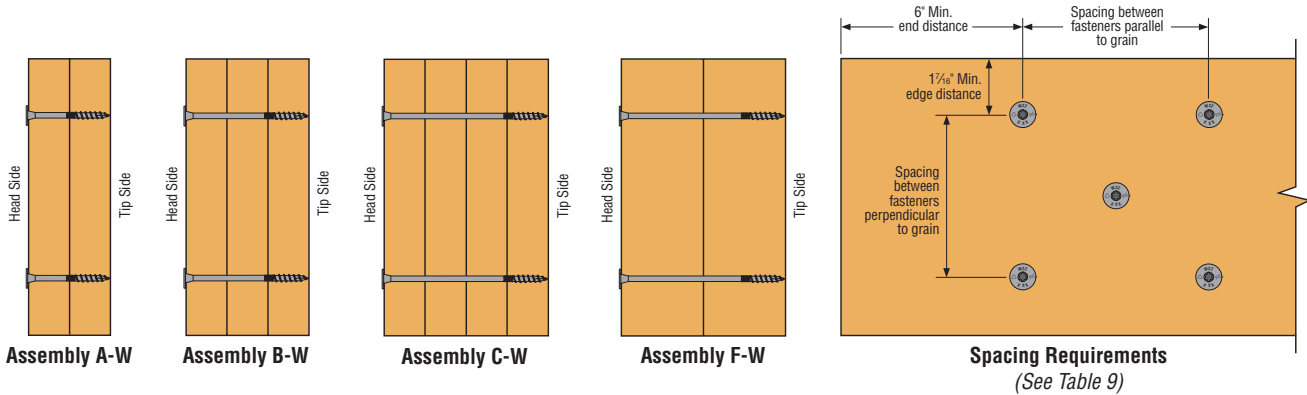


Table 6 – Sideloaded Multi-Ply Assemblies – Factored Uniform Load Applied to Either Outside Member

Multiple Members		Nominal Length (in)	Loaded Side	D.Fir-L						S-P-F					
Assembly	Component			SDW @ 12" o.c.		SDW @ 16" o.c.		SDW @ 24" o.c.		SDW @ 12" o.c.		SDW @ 16" o.c.		SDW @ 24" o.c.	
				2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows
A-W	2-ply 2x Truss	3	Head	1340	2010	1005	1508	670	1005	1160	1740	870	1305	580	870
			Tip	1220	1830	915	1373	610	915	1040	1560	780	1170	520	780
B-W	3-ply 2x Truss	4 3/4	Head	1364	2046	1023	1535	682	1023	1214	1822	911	1366	607	911
			Tip	1229	1844	922	1383	615	922	1094	1642	821	1231	547	821
C-W	4-ply 2x Truss	6	Head	1213	1820	910	1365	607	910	1080	1620	810	1215	540	810
			Tip	1093	1640	820	1230	547	820	973	1460	730	1095	487	730
		6 3/4	Head	1213	1820	910	1365	607	910	1080	1620	810	1215	540	810
			Tip	1093	1640	820	1230	547	820	973	1460	730	1095	487	730

- Each ply is assumed to carry same proportion of load.
- Loads may be applied to the head side and tip side concurrently provided neither published capacity is exceeded.
(Example: a 4-ply D.Fir-L assembly with a head side load of 1300 plf and tip side load of 1200 plf may be fastened together with 3 rows of 6" SDW @ 16" o.c.)
- When hangers are installed on tip side, hanger face fasteners must be a minimum of 3" long.
- Hanger load spacing on the multi-ply assembly should not exceed 24" o.c. unless approved by the Designer.

Table 7 – Sideloaded Multi-Ply SCL Assemblies – Factored Uniform Load Applied to Either Outside Member

Multiple Members		Nominal Length (in)	Loaded Side	SCL (SG = 0.5)						SCL (SG = 0.42)					
Assembly	Component			SDW @ 12" o.c.		SDW @ 16" o.c.		SDW @ 24" o.c.		SDW @ 12" o.c.		SDW @ 16" o.c.		SDW @ 24" o.c.	
				2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows	2 Rows	3 Rows
A-W	2-ply 1 3/4" SCL	3 3/4	Head	1560	2340	1170	1755	780	1170	1300	1950	975	1463	650	975
			Tip	1360	2040	1020	1530	680	1020	1140	1710	855	1283	570	855
B-W	3-ply 1 3/4" SCL	5	Head	1484	2226	1113	1670	742	1113	1289	1934	967	1451	645	967
			Tip	1244	1867	933	1400	622	933	1094	1642	821	1231	547	821
C-W	4-ply 1 3/4" SCL	6 3/4	Head	1320	1980	990	1485	660	990	1147	1720	860	1290	573	860
			Tip	1107	1660	830	1245	553	830	973	1460	730	1095	487	730
F-W	2-ply 3 1/2" SCL	6 3/4	Head	2280	3420	1710	2565	1140	1710	2020	3030	1515	2273	1010	1515
			Tip	2280	3420	1710	2565	1140	1710	1960	2940	1470	2205	980	1470

- Each ply is assumed to carry same proportion of load.
- Loads may be applied to the head side and tip side concurrently provided neither published capacity is exceeded.
(Example: a 3-ply assembly (SG = 0.5) with a head side load of 1600 plf and tip side load of 1300 plf may be fastened together with 3 rows of SDW @ 16" o.c.)
- When hangers are installed on tip side, hanger face fasteners must be a minimum of 3" long.

Table 8 – Factored Withdrawal Resistances

Model No.	Nominal Length (in)	Thread Length (in)	Factored Withdrawal Resistance (lbs)	
			D.Fir-L	S-P-F
SDW22300	3	1 1/16	485	370
SDW22338	3 3/4	1 1/16	530	405
SDW22458	4 3/4	1 1/16	485	370
SDW22500	5	1 1/16	530	405
SDW22600	6	1 1/16	485	370
SDW22638	6 3/4	1 1/16	485	370
SDW22634	6 3/4	1 1/16	530	405

Table 9 – Spacing Requirements

Geometry	Minimum Dimensions (in)	
	D.Fir-L	S-P-F
a - Spacing parallel to grain	6	5
b - End distance parallel to grain	6	6
c - Spacing perpendicular to grain	3	2 1/2
d - Edge distance perpendicular to grain	1 1/4	1 1/4

- Additional screws may be staggered diagonally between rows.

This flier is effective until January 31, 2013, and reflects information available as of October 1, 2010. This information is updated periodically and should not be relied upon after January 31, 2013; contact Simpson Strong-Tie for current information and limited warranty or see www.strongtie.com.