

# Structural and General Fastening

## Strong-Drive® SDWS TIMBER SS Screw

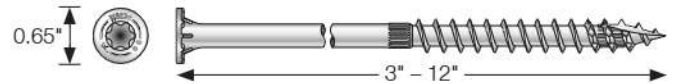
Structural Wood and Engineered Wood Connections Including Docks, Piers, Boardwalks and Ledgers, Applications Requiring High to Severe Corrosion Resistance

Designed to provide an easy-to-install, low-torque driving, high-strength, severe-corrosion-resistant alternative to through bolting, traditional lags and spikes. The Strong-Drive SDWS Timber SS screw is a premium solution for heavy-duty structural applications. Type 316 stainless steel provides severe corrosion resistance, making it suitable for exterior and preservative-treated wood applications.

**Codes/Standards:** IAPMO UES ER-192 (including City of LA Supplement), State of Florida FL13975

US Patent 9,523,383

For more information, see p. 60, C-F-2023 Fastening Systems catalog



### SDWS Timber SS – Allowable Shear Loads – Douglas Fir–Larch, Southern Pine Lumber

Length (in.)	Model No.	Thread Length (in.)	Reference DFL/SP Allowable Shear Loads (lb.)								Reference Withdrawal Design Value, W (lb./in.)	Max. Reference Withdrawal Design Value, W <sub>max</sub> (lb.)
			Wood Side Member Thickness (in.)									
			1.5	2.5	3	3.5	4.5	6	8	10		
4	SDWS27300SS	2	225	—	—	—	—	—	—	—	222	410
4	SDWS27400SS	3	375	225	—	—	—	—	—	—	204	410
5	SDWS27500SS	3	375	335	310	210	—	—	—	—	204	410
6	SDWS27600SS	3	375	335	335	335	210	—	—	—	204	410
8	SDWS27800SS	3	375	415	485	440	335	275	—	—	204	410
10	SDWS271000SS	3	375	415	485	440	335	275	275	—	204	410
12	SDWS271200SS	3	375	415	485	440	335	275	275	275	204	410

See footnotes below.

### SDWS Timber SS – Allowable Shear Loads – Hem-Fir, Spruce-Pine-Fir Lumber

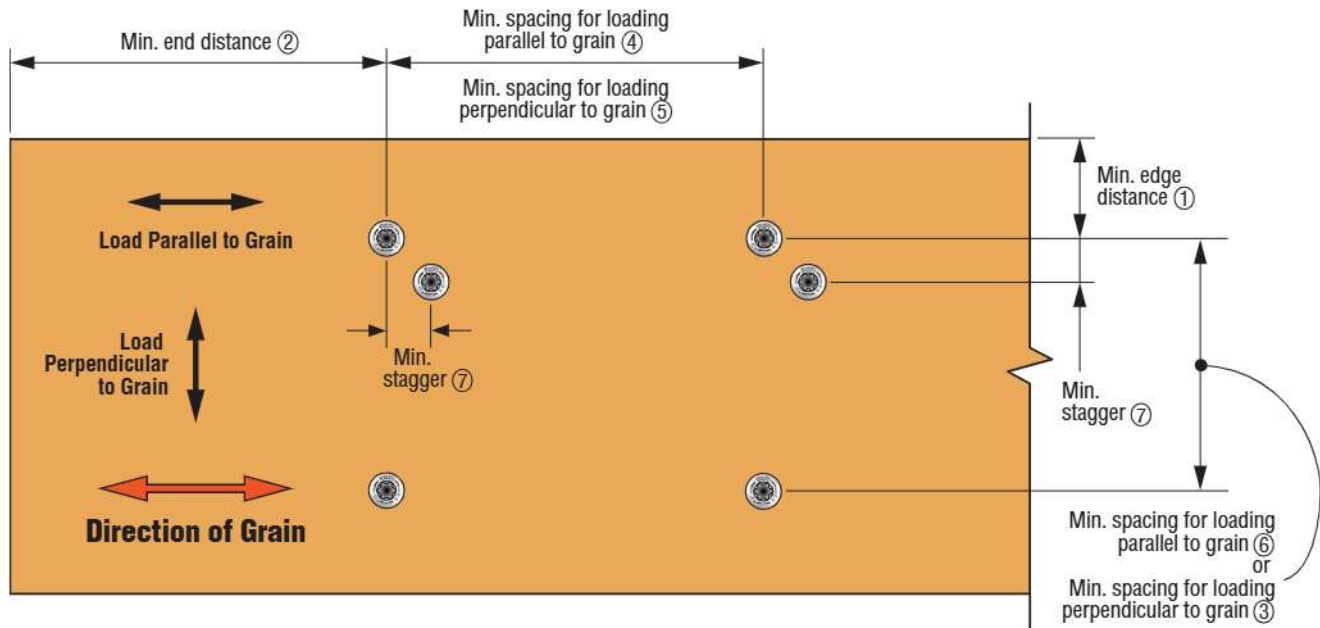
Length (in.)	Model No.	Thread Length (in.)	Reference HF/SPF Allowable Shear Loads (lb.)								Reference Withdrawal Design Value, W (lb./in.)	Max. Reference Withdrawal Design Value, W <sub>max</sub> (lb.)
			Wood Side Member Thickness (in.)									
			1.5	2.5	3	3.5	4.5	6	8	10		
3	SDWS27300SS	2	210	—	—	—	—	—	—	—	182	365
4	SDWS27400SS	3	325	180	—	—	—	—	—	—	200	385
5	SDWS27500SS	3	325	285	235	175	—	—	—	—	200	385
6	SDWS27600SS	3	325	285	285	285	175	—	—	—	200	385
8	SDWS27800SS	3	325	350	390	465	280	240	—	—	200	385
10	SDWS271000SS	3	325	350	390	465	280	240	240	—	200	385
12	SDWS271200SS	3	325	350	390	465	280	240	240	240	200	385

- All applications are based on full penetration into the main member. Full penetration is the screw length minus the side member thickness.
- Allowable loads are shown at the wood load duration factor of C<sub>D</sub> = 1.0. Loads may be increased for load duration per the building code up to a C<sub>D</sub> = 1.6. Tabulated values must be multiplied by all applicable adjustment factors per the NDS.
- For minimum fastener spacing requirements for both side and main members, see the Spacing Requirements Figure and Table on p. 52.
- For in-service moisture content greater than 19%, use C<sub>M</sub> = 0.7.
- Loads are based on installation into the side grain of the wood with the screw axis perpendicular to the face of the member.
- The tabulated reference withdrawal design value, W, is in pounds per inch of the thread penetration into the side grain of the main member.
- The tabulated reference withdrawal design value, W<sub>max</sub>, is in pounds where the entire thread length must penetrate into the side grain of the main member.
- Embedded thread length is that portion held in the main member, including the screw point.
- Values are based on the lesser of withdrawal from the main member or pull-through of a 1 1/2" side member.

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## Strong-Drive® SDWS TIMBER SS Screw (cont.)

### SDWS Timber SS Screw Spacing Requirements



### SDWS Timber SS Screw Spacing Requirements

Condition	Direction of Load to Grain	ID	Minimum Distance or Spacing (in.)
Edge Distance	Perpendicular	①	1½
	Parallel	①	1½
End Distance	Perpendicular	②	6
	Parallel	②	6
Spacing Between Fasteners in a Row	Perpendicular	③	4
	Parallel	④	8
Spacing Between Rows of Fasteners	Perpendicular	⑤	4
	Parallel	⑥	4
Spacing Between Staggered Rows	Perpendicular or Parallel	⑦	¾

1. For axial loading only, use the following minimum dimensions: end distance = 4", edge distance = 1½", spacing parallel to grain = 2½", spacing perpendicular to grain = 2".