

Sole / Top Plate-to-Rim Fastening

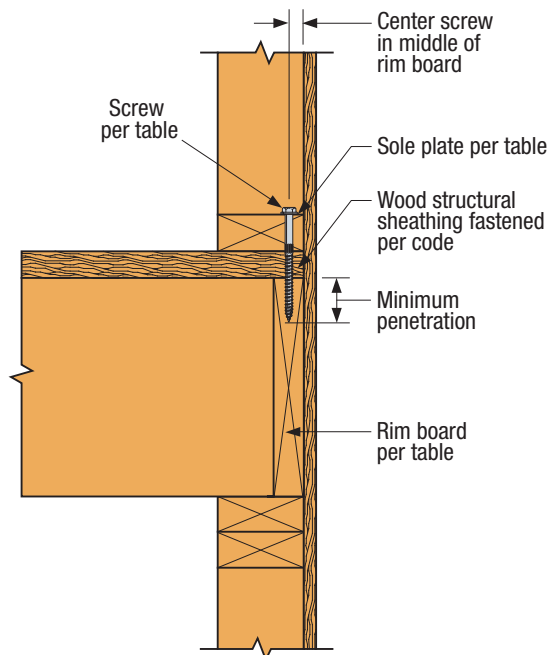
Strong-Drive® SDS HEAVY-DUTY CONNECTOR Screw

For more information, see p. 60, C-F-2019 Fastening Systems Catalog

SDS — Allowable Shear Values for Sole-to-Rim Connections

Size (in.)	Model No.	Sole Plate Nominal Thickness (in.)	Minimum Penetration into Rim Board (in.)	Reference Allowable Loads (lb.)							
				2x DFL/SP Rim Board		2x SPF/HF Rim Board		1 ¼" Min. LVL Rim Board		1 ¼" Min. LSL Rim Board	
				DFL/SP Sole Plate	SPF/HF Sole Plate	DFL/SP Sole Plate	SPF/HF Sole Plate	DFL/SP Sole Plate	SPF/HF Sole Plate	DFL/SP Sole Plate	SPF/HF Sole Plate
¼ x 4.5	SDS25412	2x	2	250	190	190	190	190	190	220	190
¼ x 5	SDS25500	2x	2	250	190	190	190	190	190	220	190
¼ x 6	SDS25600	2x, 3x, (2)-2x	2	250	190	190	190	190	190	220	190

1. Allowable loads are based on testing per ICC-ES AC233 and are limited to parallel-to-grain loading.
2. Allowable loads are shown at the wood load duration factor of $C_D = 1.00$. Loads may be increased for load duration by the building code up to a $C_D = 1.60$.
3. Minimum spacing of the SDS for sawn lumber applications is 3" o.c., minimum end distance is 3", and minimum edge distance is ½".
4. Minimum spacing of the SDS for LVL and LSL applications is 6" o.c., minimum end distance is 6", and minimum edge distance is ½".
5. Wood structural panel up to 1 ½" thick is permitted between the sole plate and rim board provided it is fastened to the rim board per code and the minimum penetration of the screw into the rim board is met.
6. A double 2x sole/top plate is permitted provided it is independently fastened per the code and the minimum screw penetration per the table is met.
7. Minimum rim board height shall be 9¼" when using SDS screws for sole and top plate fastening.
8. Sole-to-rim loads can be achieved without a wall below.



Sole-to-Rim Board Assembly
(Other fasteners not shown for clarity)