

Foundation Connectors



SPArtan™ Sill Plate Anchor

SPA67, SPA67DB (U.S. Patent Pending)



PRODUCT FEATURES:

SPArtan™ Sill Plate Anchors are post-installed anchors used to attach the sill plate of a wood framed wall to a concrete foundation/curb and rim boards to masonry wall. SPArtan™ anchors are made from carbon steel wire and have a smooth shank shoulder (5/8" diameter x 1-1/2" long) at the top for sill plate and rim board attachments. This transitions into a threaded shank (3/8" diameter x 6" long) for concrete foundation/curb and masonry wall attachments. The head is comprised of a 1-1/4" diameter flange and a 3/8" square recess for easy anchor installation. SPArtan™ anchors are designed to resist shear and tension loads due to wind and seismic forces in cracked and uncracked concrete.

MATERIAL:

Hardened Carbon steel

COATING:

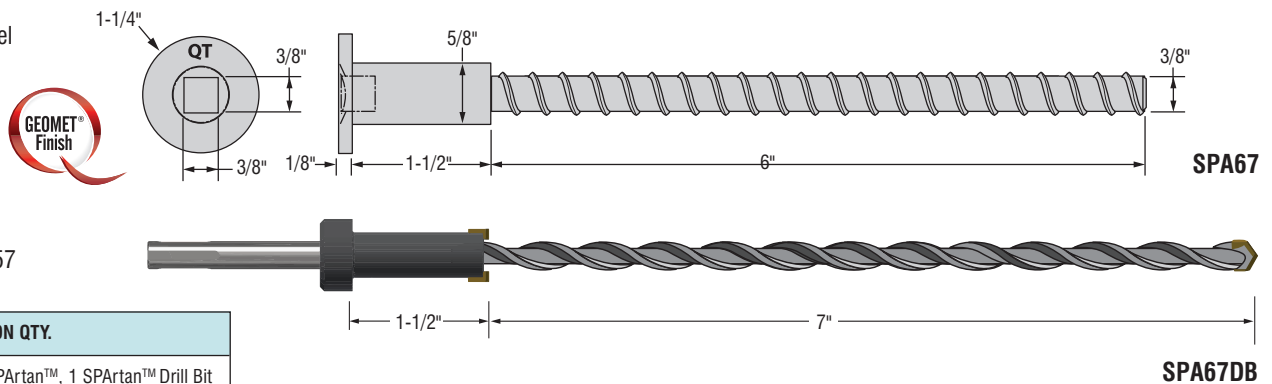
GEOMET®

INSTALLATION:

See back

CODE COMPLIANCE:

TER 0910-01, FL 3557



SKU	CARTON QTY.
SPA67-100DB	100 SPArtan™, 1 SPArtan™ Drill Bit
SPA67-100	100 SPArtan™
SPA67-50	50 SPArtan™
DBMSPA67	1 SPArtan™ Drill Bit

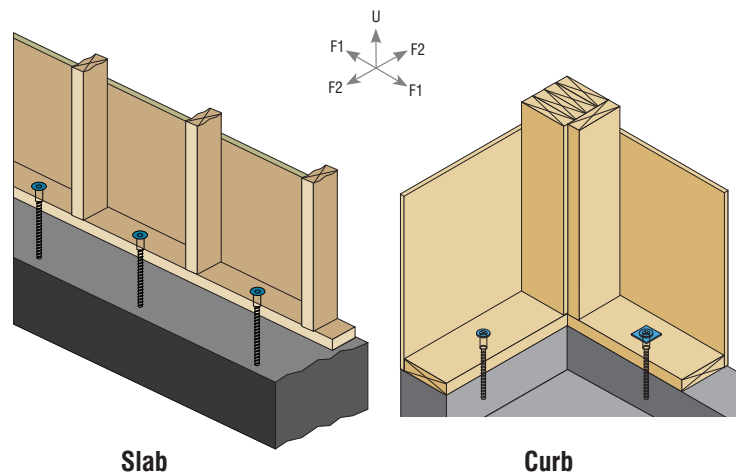
CAUTION: Use of the SPArtan™ Drill Bit is recommended. Oversizing of holes drilled in either the wood sill plate or concrete will reduce the load capacity of the anchor. The SPArtan™ Drill bit is a proprietary, carbide-tipped step bit, custom designed for the installation of the SPArtan™ anchors.

SPArtan™ ANCHOR SPACING (IN.) EQUIVALENTS FOR EPOXY ANCHOR

Epoxy Anchor Size	Epoxy Anchor Spacing					
	16"	24"	32"	36"	40"	48"
1/2"	30	45	61	68	76	91
5/8"	21	32	42	48	53	64

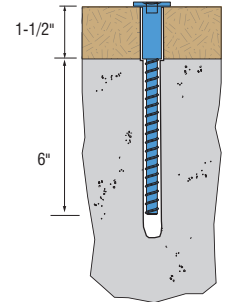
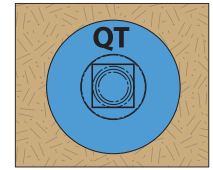
NOTES:

- Tabulated values are based on the lateral resistance of sill plate (SP #2, PT) connection when loaded parallel to grain.
- Minimum requirements: Threaded rod length = 6"; Embedment depth = 3.5"; Edge distance = 2.25"; End distance = 7"; Concrete strength = 2,500 psi and Sill plate thickness = 1.5".
- Engineer-of-Record (EOR) to check anchor spacing limits for out-of-plane bending and deflection of sill plate.



SPArtan™ ANCHOR ALLOWABLE SHEAR VALUES (ASD) - CONCRETE AND WOOD

Applied Load	Allowable Loads (LB) ¹⁻⁶	
	Load Direction	Slab/Curb ⁷⁻⁹
Shear	Parallel to Wood Grain (F ₁)	1,395
	Perpendicular to Wood Grain (F ₂)	665
Tension	Uplift (U)	1,155
	Uplift (U) with Washer ¹⁰	1,705

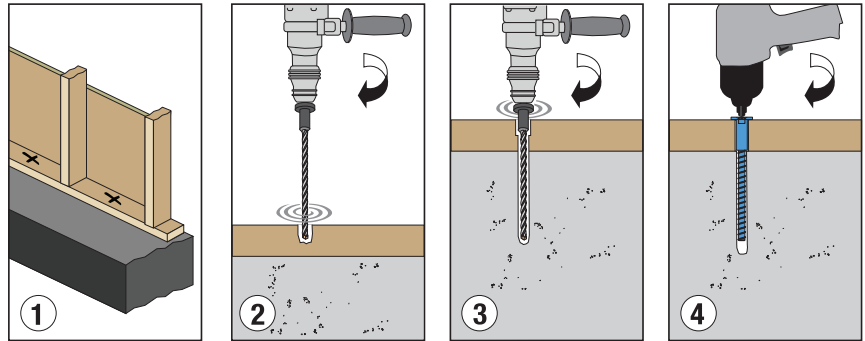


NOTES:

1. Tabulated values are applicable to uncracked concrete and pressure treated Southern Pine #2 lumber.
2. Allowable load values are determined using a conversion factor (α_{ASD}) of 1.6. The conversion factor is based on the controlling load case: $(0.9D + W) / (0.6D + 0.6W)$, where Dead Load (D) = 30% and Wind Load (W) = 70%. Adjustments shall be made where other load combinations control.
3. Anchor design conforms to ACI 318 with no supplementary reinforcement considered.
4. Anchor bending yield strength, $F_y = 100,000$ psi and Concrete dowel bearing strength = 7,500 psi.
5. Allowable loads are provided for a 1.6 load duration (CD). No further increases are permitted.
6. Allowable loads use a wet service factor $CM = 0.7$ ($MC > 19\%$). No further reduction required.
7. Minimum edge distance = 2.75 inches, minimum end distance = 6.75 inches (shear) and 6 inches (tension). Minimum anchor spacing = 6.75 inches. Minimum embedment = 6 inches.
8. Minimum concrete compressive strength is 2,500 psi.
9. Minimum curb width is 6 inches.
10. Washer size is 2 inch x 2 inch x 1/8 inch.

INSTALLATION INSTRUCTIONS

1. Clean the top surface of sill plate and mark the SPArtan™ anchor location(s).
2. Use a rotary hammer drill and SPArtan™ stepped drill bit (sold by Quick Tie Products, Inc.) to drill a hole in the sill plate. Stop and remove wood dust as necessary.
3. Once the drill bit hits concrete, take precaution not to overwork the drill and/or drill bit. Intermittently, stop and clean concrete dust from the hole. If necessary, use compressed air (or other means) to remove debris around hole. Stop drilling when the wood bit stopper hits the top surface of sill plate. Over drilling may damage the carbide tips of wood bit.
4. Install SPArtan™ anchor using an impact drill with 3/8" square drive bit. Stop once the anchor flange hits the top surface of sill plate.



CAUTION: APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) MUST ALWAYS BE WORN.