


TITEN® Concrete and Masonry Screws

Titen® screws are 3/16" and 1/4" diameter masonry screws for attaching all types of components to concrete and masonry. Available in hex and phillips head designs in three colors. Use with appropriately sized Titen drill bits included with each box.

Warning: Industry studies show that hardened fasteners can experience performance problems in wet or corrosive environments. Accordingly, use these products in dry, interior and non-corrosive environments only.

- MATERIAL:** Heat-treated carbon steel
- FINISH:** Zinc plated with a baked on ceramic coating
- CODES:** Florida FL 2355.1
- INSTALLATION:**

 Caution: Oversized holes in the base material will reduce or eliminate the mechanical interlock of the threads with the base material and will reduce the anchor's load capacity.

- Drill a hole in the base material using the appropriate diameter carbide drill bit as specified in the table. Drill the hole to the specified embedment depth plus 1/2" to allow the thread tapping dust to settle and blow it clean using compressed air. Overhead installations need not be blown clean. Alternatively, drill the hole deep enough to accommodate embedment depth and dust from drilling and tapping.
- Position fixture, insert screw and tighten using drill and installation tool fitted with a hex socket or phillips bit.

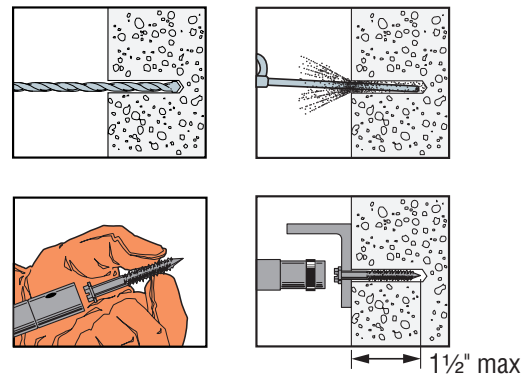
Preservative-treated wood applications: Suitable for use in non-ammonia formulations of CCA, ACQ-C, ACQ-D, CA-B, SBX/DOT and zinc borate. Use in dry, interior environments only. Use caution not to damage ceramic barrier coating during installation. Recommendations are based on testing and experience at time of publication and may change. Simpson Strong-Tie cannot provide estimates on service life of screws. Contact Simpson Strong-Tie for additional information.



Titen® Phillips flat head screw (PF)

Titen® Hex head screw (H)

Installation Sequence



Mechanical Anchors

Titen® Tension and Shear Load Values in Normal-Weight Concrete



Titen Dia. in. (mm)	Drill Bit Dia. in.	Embed. Depth in. (mm)	Critical Spacing in. (mm)	Critical Edge Dist. in. (mm)	Tension Load				Shear Load	
					f'c ≥ 2000 psi (13.8 MPa) Concrete		f'c ≥ 4000 psi (27.6 MPa) Concrete		f'c ≥ 2000 psi (13.8 MPa) Concrete	
					Ultimate lbs. (kN)	Allowable lbs. (kN)	Ultimate lbs. (kN)	Allowable lbs. (kN)	Ultimate lbs. (kN)	Allowable lbs. (kN)
3/16 (4.8)	5/32	1 (25.4)	2 1/4 (57.2)	1 1/8 (28.6)	500 (2.2)	125 (0.6)	640 (2.8)	160 (0.7)	1,020 (4.5)	255 (1.1)
3/16 (4.8)	5/32	1 1/2 (38.1)	2 1/4 (57.2)	1 1/8 (28.6)	1,220 (5.4)	305 (1.4)	1,850 (8.2)	460 (2.0)	1,670 (7.4)	415 (1.8)
1/4 (6.4)	3/16	1 (25.4)	3 (76.2)	1 1/2 (38.1)	580 (2.6)	145 (0.6)	726 (3.2)	180 (0.8)	900 (4.0)	225 (1.0)
1/4 (6.4)	3/16	1 1/2 (38.1)	3 (76.2)	1 1/2 (38.1)	1,460 (6.5)	365 (1.6)	2,006 (8.9)	500 (2.2)	1,600 (7.1)	400 (1.8)

1. Maximum anchor embedment is 1 1/2" (38.1 mm).
2. Concrete must be minimum 1.5 x embedment.



Titen® Phillips head screw available in white, standard blue and silver

Titen® Tension and Shear Load Values in Face Shell of Hollow and Grout-Filled CMU



Titen Dia. in. (mm)	Drill Bit Dia. in.	Embed. Depth in. (mm)	Critical Spacing in. (mm)	Critical Edge Dist. in. (mm)	Values for 6" or 8" Lightweight, Medium-Weight or Normal-Weight CMU			
					Tension Load		Shear Load	
					Avg. Ult. lbs. (kN)	Allow. lbs. (kN)	Avg. Ult. lbs. (kN)	Allow. lbs. (kN)
3/16 (4.8)	5/32	1 (25.4)	2 1/4 (57.2)	1 1/8 (28.6)	542 (2.4)	110 (0.5)	1,016 (4.5)	205 (0.9)
1/4 (6.4)	3/16	1 (25.4)	3 (76.2)	1 1/2 (38.1)	740 (3.3)	150 (0.7)	1,242 (5.5)	250 (1.1)

*See page 10 for an explanation of the load table icons

1. The tabulated allowable loads are based on a safety factor of 5.0 for installations under the IBC and IRC. For installations under the UBC use a safety factor of 4.0 (multiply the tabulated allowable loads by 1.25).
2. See notes 1 and 2 above.



Bulk packaging available for large-volume applications

Standard Blue Titen® Product Data
($\frac{3}{16}$ " diameter)

Size (in.)	Simpson Model No. ¹	Bit Diameter (in.)	Quantity		
			Box ²	Carton ³	Bulk ⁴
$\frac{3}{16}$ X $1\frac{1}{4}$	TTN18114H	$\frac{5}{32}$	100	1600	1000
$\frac{3}{16}$ X $1\frac{3}{4}$	TTN18134H			500	
$\frac{3}{16}$ X $2\frac{1}{4}$	TTN18214H			500	
$\frac{3}{16}$ X $2\frac{3}{4}$	TTN18234H			500	
$\frac{3}{16}$ X $3\frac{1}{4}$	TTN18314H			400	
$\frac{3}{16}$ X $3\frac{3}{4}$	TTN18334H			400	
$\frac{3}{16}$ X 4	TTN18400H			400	
$\frac{3}{16}$ X $1\frac{1}{4}$	TTN18114PF			1600	
$\frac{3}{16}$ X $1\frac{3}{4}$	TTN18134PF			500	
$\frac{3}{16}$ X $2\frac{1}{4}$	TTN18214PF			500	
$\frac{3}{16}$ X $2\frac{3}{4}$	TTN18234PF			500	
$\frac{3}{16}$ X $3\frac{1}{4}$	TTN18314PF			400	
$\frac{3}{16}$ X $3\frac{3}{4}$	TTN18334PF			400	
$\frac{3}{16}$ X 4	TTN18400PF			400	

1. H Suffix: Hex Head, PF Suffix: Phillips Flat Head.
2. One drill bit is included in each box.
3. Cartons consist of boxes of 100.
4. Bulk Titen Screws come packed in a single carton, and do not include a drill bit. To order, add a "B" onto the end of the model number. Example: TTN18314HB.

Standard Blue Titen® Product Data
($\frac{1}{4}$ " diameter)

Size (in.)	Simpson Model No. ¹	Bit Diameter (in.)	Quantity		
			Box ²	Carton ³	Bulk ⁴
$\frac{1}{4}$ X $1\frac{1}{4}$	TTN25114H	$\frac{3}{16}$	100	1600	1000
$\frac{1}{4}$ X $1\frac{3}{4}$	TTN25134H			500	1000
$\frac{1}{4}$ X $2\frac{1}{4}$	TTN25214H			500	1000
$\frac{1}{4}$ X $2\frac{3}{4}$	TTN25234H			500	1000
$\frac{1}{4}$ X $3\frac{1}{4}$	TTN25314H			400	1000
$\frac{1}{4}$ X $3\frac{3}{4}$	TTN25334H			400	1000
$\frac{1}{4}$ X 4	TTN25400H			400	1000
$\frac{1}{4}$ X 5	TTN25500H			400	•
$\frac{1}{4}$ X 6	TTN25600H			400	•
$\frac{1}{4}$ X $1\frac{1}{4}$	TTN25114PF			1600	1000
$\frac{1}{4}$ X $1\frac{3}{4}$	TTN25134PF			500	1000
$\frac{1}{4}$ X $2\frac{1}{4}$	TTN25214PF			500	1000
$\frac{1}{4}$ X $2\frac{3}{4}$	TTN25234PF			500	1000
$\frac{1}{4}$ X $3\frac{1}{4}$	TTN25314PF			400	1000
$\frac{1}{4}$ X $3\frac{3}{4}$	TTN25334PF			400	1000
$\frac{1}{4}$ X 4	TTN25400PF			400	1000
$\frac{1}{4}$ X 5	TTN25500PF			400	•
$\frac{1}{4}$ X 6	TTN25600PF			400	•

1. H Suffix: Hex Head, PF Suffix: Phillips Flat Head.
2. One drill bit is included in each box.
3. Cartons consist of boxes of 100.
4. Bulk Titen Screws come packed in a single carton, and do not include a drill bit. To order, add a "B" onto the end of the model number. Example: TTN25314HB.

White Titen® Product Data
(Phillips Flat Head)

Size (in.)	Simpson Model No.	Bit Diameter (in.)	Quantity		
			Box ¹	Carton ²	Bulk ³
$\frac{3}{16}$ X $1\frac{1}{4}$	TTNW18114PF	$\frac{5}{32}$	100	1600	1000
$\frac{3}{16}$ X $1\frac{3}{4}$	TTNW18134PF			500	
$\frac{3}{16}$ X $2\frac{1}{4}$	TTNW18214PF			500	
$\frac{3}{16}$ X $2\frac{3}{4}$	TTNW18234PF			500	
$\frac{3}{16}$ X $3\frac{1}{4}$	TTNW18314PF			400	
$\frac{3}{16}$ X $3\frac{3}{4}$	TTNW18334PF			400	
$\frac{3}{16}$ X 4	TTNW18400PF			400	
$\frac{1}{4}$ X $1\frac{1}{4}$	TTNW25114PF			$\frac{3}{16}$	
$\frac{1}{4}$ X $1\frac{3}{4}$	TTNW25134PF	500	•		
$\frac{1}{4}$ X $2\frac{1}{4}$	TTNW25214PF	500	•		
$\frac{1}{4}$ X $2\frac{3}{4}$	TTNW25234PF	500	•		
$\frac{1}{4}$ X $3\frac{1}{4}$	TTNW25314PF	400	•		
$\frac{1}{4}$ X $3\frac{3}{4}$	TTNW25334PF	400	•		
$\frac{1}{4}$ X 4	TTNW25400PF	400	•		
$\frac{1}{4}$ X 5	TTNW25500PF	400	•		
$\frac{1}{4}$ X 6	TTNW25600PF	400	•		

1. One drill bit is included in each box.
2. Cartons consist of boxes of 100.
3. Bulk Titen Screws come packed in a single carton, and do not include a drill bit. To order, add a "B" onto the end of the model number. Example: TTNW18314PFB.

Silver Titen® Product Data
(Phillips Flat Head)

Size (in.)	Simpson Model No.	Bit Diameter (in.)	Quantity		
			Box ¹	Carton ²	Bulk ³
$\frac{3}{16}$ X $1\frac{1}{4}$	TTNS18114PF	$\frac{5}{32}$	100	1600	1000
$\frac{3}{16}$ X $1\frac{3}{4}$	TTNS18134PF			500	
$\frac{3}{16}$ X $2\frac{1}{4}$	TTNS18214PF			500	
$\frac{3}{16}$ X $2\frac{3}{4}$	TTNS18234PF			500	
$\frac{3}{16}$ X $3\frac{1}{4}$	TTNS18314PF			400	
$\frac{3}{16}$ X $3\frac{3}{4}$	TTNS18334PF			400	
$\frac{3}{16}$ X 4	TTNS18400PF			400	
$\frac{1}{4}$ X $1\frac{1}{4}$	TTNS25114PF			$\frac{3}{16}$	
$\frac{1}{4}$ X $1\frac{3}{4}$	TTNS25134PF	500	•		
$\frac{1}{4}$ X $2\frac{1}{4}$	TTNS25214PF	500	•		
$\frac{1}{4}$ X $2\frac{3}{4}$	TTNS25234PF	500	•		
$\frac{1}{4}$ X $3\frac{1}{4}$	TTNS25314PF	400	•		
$\frac{1}{4}$ X $3\frac{3}{4}$	TTNS25334PF	400	•		
$\frac{1}{4}$ X 4	TTNS25400PF	400	•		
$\frac{1}{4}$ X 5	TTNS25500PF	400	•		
$\frac{1}{4}$ X 6	TTNS25600PF	400	•		

1. One drill bit is included in each box.
2. Cartons consist of boxes of 100.
3. Bulk Titen Screws come packed in a single carton, and do not include a drill bit. To order, add a "B" onto the end of the model number. Example: TTNS18314PFB.