

Titen® Stainless-Steel Concrete and Masonry Screw

Stainless-Steel Titen Allowable Tension and Shear Loads in Normal-Weight Concrete



Dia. in. (mm)	Drill Bit Dia. in.	Embed. Depth in. (mm)	Critical Spacing in. (mm)	Critical Edge Dist. in. (mm)	Tension Load				Shear Load	
					$f'_c \geq 2,000$ psi (13.8 MPa) Concrete		$f'_c \geq 4,000$ psi (27.6 MPa) Concrete		$f'_c \geq 2,000$ psi (13.8 MPa) Concrete	
					Ultimate lb. (kN)	Allow. lb. (kN)	Ultimate lb. (kN)	Allow. lb. (kN)	Ultimate lb. (kN)	Allow. lb. (kN)
1/4 (6.4)	3/16	1 (25.4)	3 (76.2)	1 1/2 (38.1)	600 (2.7)	150 (0.7)	935 (4.2)	235 (1.0)	760 (3.4)	190 (0.8)
1/4 (6.4)	3/16	1 1/2 (38.1)	3 (76.2)	1 1/2 (38.1)	1,040 (4.6)	260 (1.2)	1,760 (7.8)	440 (2.0)	810 (3.6)	200 (0.9)

1. Maximum anchor embedment is 1 1/2" (38.1 mm).

2. Minimum concrete thickness is 1.5 x embedment.

Stainless-Steel Titen Allowable Tension and Shear Loads in Face Shell of Hollow and Grout-Filled CMU



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	
					Ultimate lb. (kN)	Allow. lb. (kN)	Ultimate lb. (kN)	Allow. lb. (kN)
1/4 (6.4)	3/16	1 (25.4)	4 (101.6)	1 1/2 (38.1)	550 (2.4)	110 (0.5)	495 (2.2)	100 (0.4)

1. The tabulated allowable loads are based on a safety factor of 5.0.

2. Maximum anchor embedment is 1 1/2" (38.1 mm).

Length Identification Head Marks on Stainless-Steel Titen Screw Anchors
(corresponds to anchor length in inches)

Length ID Marking on Head		—	A	B	C	D	E	F	G	H	I	J
Length of Anchor (in.)	From	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
	Up To But Not Including	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2

For SI: 1 inch = 25.4 mm.