



Certified Installers/Exclusive Dealers - CA, NV, AZ

2-1/4 inch Square Bar Helical Anchor

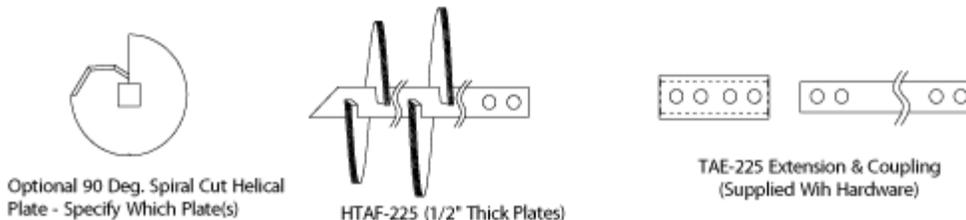
Earth Contact Products (ECP) is the leading U.S. manufacturer of 2-1/4 inch square bar helical anchors. Our Engineering, Design and Production capabilities of helical anchors, piles and helical have become the standard in the industry. These helical anchors, due to their extreme capacity are generally used in heavy commercial applications to tiebacks and heavy wire loads.

ECP offers 2-1/4 inch RCSB Helical Anchors for:

- Solar Panels
- Shoring
- Tensioning
- Guy Anchors
- New Construction
- Tiebacks
- Bowed Walls
- Tie Downs



ECP 2-1/4 inch helical anchors, also known as screw piles, screw anchors and helical piers are ideal for applications where there is a need to resist both tension and axial compressive forces. Examples of these include expansive clay soils, metal buildings, telecommunication towers and canopies. 2-1/4 inch RCSB helical anchors are easy to install, can be installed in limited spaces and can be loaded or tested immediately upon installation making them unique to the deep foundation industry.



Standard Torque Anchor™ Extensions			
Part Number			
36"	60"	84"	120"
TAE-225-36	TAE-225-60	TAE-225-84	TAE-225-120

Note: All 2-1/4" square bar products available as special order – Inquire for pricing and delivery See page 11 – “How to Specify Special Order Torque Anchors™ for information Helical plates are 1/2” thick and spaced at three times the diameter of the preceding plate. Extensions supplied with coupling and SAE J429 grade 8 bolts and nuts.



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Product hot dip galvanized per ASTM A123 grade 100.

Shaft weight per foot – 17.2 lb.

Table 2. Capacities of Helical Torque Anchors™					
Shaft Size	Installation Torque Factor (k)	Axial Compression Load Limit	Ultimate-Limit Tension Strength	Useable Torsional Strength	Practical Load Limit Based Torsional Strength
1-1/2" Square Bar	9 - 11	70,000 lb.	70,000 lb.	7,500 ft-lb	Load limited to the rated capacity of the attachments and the lateral soil strength against the shaft
1-3/4" Square Bar	9 - 11	100,000 lb.	100,000 lb.	11,000 ft-lb	
2-1/4" Square Bar	10 - 12	200,000 lb.	200,000 lb.	23,000 ft-lb	
2-7/8" Tubular – 0.203" Wall	8 - 9	60,000 lb.	60,000 lb.	5,500 ft-lb	44,000 lb
2-7/8" Tubular – 0.262" Wall	8 - 9	100,000 lb.	100,000 lb.	9,500 ft-lb	80,000 lb
3-1/2" Tubular – 0.300" Wall	7 - 8	115,000 lb.	120,000 lb.	13,000 ft-lb	97,000 lb
4-1/2" Tubular – 0.337" Wall	6 - 7	160,000 lb.	160,000 lb.	22,000 ft-lb	143,000 lb

The designer should select a product that provides adequate additional torsional capacity for the specific project and soil conditions.

IMPORTANT NOTES:

The capacities listed for Axial Compression, Tension and Torsion in Table 2 are mechanical ratings. One must understand that the actual installed load capacities for the product are dependent upon the actual soil conditions on a specific job site. The shaft “Useable Torsional Strengths” given here are the maximum values that should be applied to the product. Furthermore, these torsional ratings assume homogeneous soil conditions and proper alignment of the drive motor to the shaft. In homogeneous soils it might be possible to achieve up to 95% or more of the “Useable Torsional Strength” shown in Table 2. In obstruction-laden soils, torsion spikes experienced by the shaft may cause impact fractures of the couplings or other components. Where impact loading is expected, reduce shaft torsion by 30% or more from “Useable Torsional Strength” depending upon site soil conditions to reduce chance of fracture or damage. Another advantage of selecting a torsional rating below the values shown in Table 2 is that one may be able to drive the pile slightly deeper after the torsional requirements have been met, thus eliminating the need to cut the pile shaft in the field.

The load transfer attachment capacity must be verified for the design. Standard attachments and ratings are shown on the following pages. Special configurations to fit your project can be fabricated to your specifications upon request.

ECP 2-1/4 inch square bar helical anchors and other helical pier information can be found in the ECP Engineering section of our website.



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