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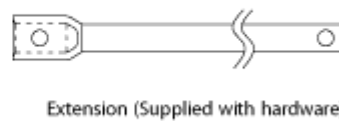
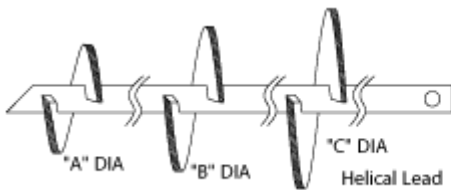
# 1-3/4 inch Square Bar Helical Anchor

Earth Contact Products (ECP) is the leading US manufacturer and supplier of 1-3/4 inch square bar helical anchors. Our Engineering, Design and Production capabilities of helical piers, piles, anchors and soil nails have become the standard in the industry.

Typical working torque for the ECP 1-3/4 inch square bar helical anchor is 10,000 ft.-lb. and minimum ultimate tension strength is 100,000 lb. Ultimate holding capacity dependent on properly installed screw anchors and strength of soil. ECP helical anchors are widely used for new construction helical piles, helical tiebacks, soil nails and foundation repair applications. For more information about ECP helical anchors and piles visit our Engineering Section of our website.

ECP offers 1-3/4" RCSB Helical Anchors for many applications including:

- Tiebacks
- New Construction
- Foundation Repair
- Guy Anchors
- Shoring
- Tilt Walls
- Soil Nails
- Slab Repair
- Bowed Walls
- Tie Downs



Standard Torque Anchor™ Lead Configurations					
Product Designation	Plate Diameter-inches			Plate Area sq. ft.	Length
	"A"	"B"	"C"		
TAH-175-60 (8)	8*	--	--	0.33	60"
TAH-175-600 (10-12)	10	12	--	1.29	60"
TAH-175-84 (10-12-14)	10	12	14	2.34	84"



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Standard Torque Anchor™ Extensions			
Part Number			
36"	60"	84"	120"
TAE-175-36	TAE-175-60	TAE-175-84	TAE-175-120

**Note:** Products Listed Above Are Standard Items And Are Usually Available From Stock  
See page 11 – “How to Specify Special Order Torque Anchors™ for Specialized Configurations – Allow Extra Time For Processing.

All Helical Plates Are Spaced At Three Times The Diameter Of The Preceding Plate  
Effective Length Of Extension Is 3” Less Than Overall Dimension Due to Coupling Overlap  
All Product Hot Dip Galvanized Per ASTM A123 Grade 100  
Shaft Weight per Foot – 10.4 lb/ft.

\* “H” before part designation indicates helical plate thickness of 1/2 inch instead of standard 3/8”

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,



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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.

Helical anchors, also known as screw piles, screw anchors and torque anchors 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. 1-3/4” RCSB helical anchors are easy to install, can be installed in limited spaces and can be loaded or tested immediately upon installation making them very unique to the deep foundation industry. For more information and specifications visit the ECP Engineering portion of our website or call us for more information about the ECP 1-3/4 inch square bar helical anchor.



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