



PRODUCT CATALOG

Email Orders To:
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PRODUCT PROPERTIES TECHNICAL KEY

Grip-Tite has been manufacturing high-quality, earth anchoring and foundation repair products in Winterset, IA continuously since 1921. We can proudly state that all of our products are “Made in the USA”. Certified welders, constant quality improvement programs and exacting quality control procedures ensures the highest quality products with proven performance for over 90 years.

A network of certified installers/dealers, effectively cover all 50 states, Canada and Mexico. These installers undergo an extensive, in-house training and certification in order to provide safe and effective product installations. Those products are tested in-house, at third party, independent, certified laboratories and in the field before they are put into production. You can be assured of a pre-engineered, reliable solution to your earth anchoring and foundation repair needs with Grip-Tite.

Grip-Tite has obtained, and maintained, ICC Legacy Evaluation Service Reports and IAPMO Evaluation reports for both Helical & Push Pier Systems. We have also tested both products in accordance with ICC Test Criteria AC308 through an ICC certified laboratory.

Our support staff provides engineering, product and customer support to the dealer network and the engineering and building communities. Our field support includes job site and installation oversight, load tests and product development. We look forward to the opportunity to serve your earth anchoring and foundation repair needs.

Grip-Tite performance.....over 90 years and counting!

Grip-Tite® Foundation Helical Pier Properties

Standard and Heavy Duty Series

Helical piers (aka helical piles) are either square or round shafts with one or more helix bearing plates welded to the shaft. Helical piers are hydraulically “screwed” into load bearing soils. Grip-Tite’s helical piers have a true helix, meaning, the second and/or third helical plate follows the same path as the first when “screwed” into the soil. This minimizes the disruption of soil.

Helical piers can be used to repair an existing structure or for new construction as an alternative to micropiles, caissons, geopiers or other deep foundation systems. They can also be used instead of an over-excavation and soil replacement. The helical pier can be both time and cost effective.

When helical piers are used to repair an existing structure, they are “screwed” into the soil until a pre-determined torque is reached. A bracket is then placed on the steel shaft and positioned under the footing of the structure, transferring the load of the structure to the helical piers. The structure can then be stabilized or lifted back level.

Helical Piers have been in use for almost 200 years, and more recently have become more popular with engineers and contractors and used often in place of more costly alternatives.

*Retrofit
(Standard Duty)
Bracket*



*Retrofit
(Heavy Duty)
Bracket*



*New Construction
Bracket*



Advantages

- * Lead sections and extensions can be configured to achieve design depth and capacity
- * Lead sections available in 2, 5 and 7-foot lengths
- * Extensions available in 3, 5 and 7-foot length
- * Helical piers available with single, double and triple helix lead sections
- * Helix blade diameters of 8, 10, 12 and 14 inches
- * Available with hot-dipped galvanized coating for added corrosion resistance

Retrofit

- * Lead sections of pier can be configured to achieve design depths and capacities
- * Minimal excavation required around foundation area
- * Installs quickly with lightweight or portable equipment
- * Vibration-free installation
- * No wait – piers installed in any or all weather
- * Installs in areas with limited or tight access (without generating spoils)
- * Pier system installed below grade – not visible once installation is complete
- * Cost-effective (gets a structure back on solid ground)
- * Permanent solution – prevents further vertical movement

New Construction

- * All-weather installation
- * Can be installed with either portable or “small” equipment
- * Can be installed in areas of limited or tight access
- * Foundation concrete can be poured immediately following installation
- * Lead sections can be configured to achieve design depth and capacity
- * Cost-competitive versus other deep foundation alternatives
- * Vibration-free installation
- * Installs quickly without generating spoils

Grip-Tite®
Foundation Pier System

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GTRDS150 SERIES SQUARE SHAFT HELICAL PILES/TIEBACKS

60 KIPS ULTIMATE CAPACITY FROM TORQUE
STEEL SPECIFICATIONS

Shaft (AISI 1060)	RCS 1.50" x 1.50" $F_y = 85 \text{ ksi min}; F_u = 120 \text{ ksi min.}$
Cross section area, A_{nominal}	2.12 in ²
Moment of inertia, I	0.39 in ⁴
Sectional Modulus, S	0.41 in ³
Radius of Gyration, r	0.42 in
Coupler (A151 1060)	UPFORGED 2.5" x 2.5" x 0.45" wall
Bolts (ASTM 490) Grade 8	1- 3/4" diam. x 3.5" SAE J429
Helices (ASTM A36)	Thickness - 0.375"; 8", 10", 12", 14" Diam.
Coating	Hot-Dip Galvanization to ASTM A123 Optional

CAPACITIES

Ultimate Capacity-to-Torque Ratio, K	10 ft ⁻¹
Recommended Torsional Strength, T	6,000 ft-lbs
Ultimate Mechanical Compression Capacity	120 kips
Allowable Mechanical Compression Capacity	60 kips

COMPRESSION AND TENSION CAPACITIES BY TORQUE

Ultimate Capacity - Compression and Tension	60 kips
Allowable Capacity - Compression and Tension	30 kips
Allowable Shear Capacity	30 kips

HELIX DIAMETER (in)	NET AREA (ft ²)
8	0.30
10	0.50
12	0.75
14	1.0



GTRDS175 SERIES SQUARE SHAFT HELICAL PILES/TIEBACKS

110 KIPS ULTIMATE CAPACITY FROM TORQUE
STEEL SPECIFICATIONS

Shaft (AISI 1060)	RCS 1.50" x 1.50" $F_y = 85 \text{ ksi min}; F_u = 120 \text{ ksi min.}$
Cross section area, A_{nominal}	3.00 in ²
Moment of inertia, I	0.75 in ⁴
Sectional Modulus, S	0.78 in ³
Radius of Gyration, r	0.50 in
Cast Coupler (A151 1060)	2.85" x 2.85" x 0.5" wall
Bolts (ASTM 490) SAE Grade 8	2- 1" diam. x 3.5"
Helices (ASTM A36)	Thickness - 0.375"; 8", 10", 12", 14" Diam.
Coating	Hot-Dip Galvanization to ASTM A123 Optional

CAPACITIES

Ultimate Capacity-to-Torque Ratio, K	10 ft ⁻¹
Recommended Torsional Strength, T	11,000 ft-lbs
Ultimate Mechanical Compression Capacity	120 kips
Allowable Mechanical Compression Capacity	60 kips

COMPRESSION AND TENSION CAPACITIES BY TORQUE

Ultimate Capacity - Compression and Tension	110 kips
Allowable Capacity - Compression and Tension	55 kips
Allowable Shear Capacity	50 kips

HELIX DIAMETER (in)	NET AREA (ft ²)
8	0.30
10	0.50
12	0.75
14	1.0

