



The CHANCE[®] Helical Pier Foundation System

for New Construction

from

CHANCE[™]
Since 1912

DOWN. RIGHT. SOLID.

Instant Foundations

New construction foundations don't have to be a headache. The CHANCE® Helical Pier Foundation System gives you the performance of concrete without the drawbacks and liabilities of driven piles and drilled shafts.

The helical pier foundation can be devised to resist or support any load or application. And it's fast. It can be installed with lightweight construction equipment and loaded immediately. There's no concrete curing time, and predefined capacities are predictable, putting you in control.

Approved by national building code agencies BOCA, ICBO, SBCCI, CCMC and ICC, the CHANCE® helical pier and tension anchor has become the deep foundation system of choice for architects, builders, contractors, engineers and geotechnical firms.

New Construction and Beyond

The CHANCE® Helical Pier Foundation System is perfect for a wide range of commercial, industrial, institutional and residential applications — from new homes and high-rise structures to sound walls, communication towers and bridges. Here are just a few applications:

- **New construction** supporting foundation grade beams, column bases, compression, tension and concrete slabs.
- **Repairing failed or old foundations** using time-tested engineering solutions.
- **Retrofit foundations** in existing structures where new loads are being added or under existing concrete slab.
- **Permanent battered piers** to take lateral loads, including wind and seismic.
- **Machinery/equipment foundations** for immediate loading with increased capacity.
- **Wind and seismic loading applications** such as sound walls, billboards, communication towers, etc.
- **Foundation support** in tight access or inaccessible areas, primarily vertical axial compression loading.
- **Permanent or temporary foundation** structural shoring, primarily vertical compression loading.
- **Permanent tension hold downs** for wind and seismic loads.
- **Foundations in noise-sensitive areas** where vibration is a concern.





How It Works

The CHANCE® helical pier is a segmented deep foundation system with helical bearing plates welded to a central shaft. Load is transferred from the shaft to the soil through these bearing plates.

As a result of their true helical shape, the helices do not auger into the soil but rather screw into it with minimal disturbance. The first section, called the Lead Section, contains the helical plates. The Lead Section can consist of one to four helices.

If required, additional helices can be added with the use of Helical Extensions. Plain Extensions are then added until the Lead Section penetrates the bearing strata and the necessary or appropriate torque is achieved.

Solid Advantages

The helical pier foundation is preferred over driven piles, drilled shafts, grouted tendons, auger-cast piles, belled piers and other deep foundation systems for a number of compelling reasons:

- Fast installation and immediate loading.
- Pre-engineered system.
- Eliminates high-mobilization costs associated with driven piles, drilled shafts or auger-cast piles.
- Instant torque-to-capacity feedback for production control.
- Easily modified in the field.
- No need for concrete to cure.
- Uses common construction equipment easily fitted with hydraulically-driven torque motors.
- Easy to use in limited access sites, high water tables and weak surface soils.
- No need to remove spoils.
- No casings required for flowable sands, soft clays or organic soils.
- Minimizes soil disturbance during installation.
- Installs in any weather.
- No vibration.
- Environmentally friendly.
- Hot dipped galvanizing to ASTM A-153.
- ISO 9001 certification.

The Shape of Stability

The true helix geometry of each steel bearing plate minimizes soil disturbance during installation.





Reliable Hardware

SS (SQUARE SHAFT) PIERS and ANCHORS

Includes 1-1/2", 1-3/4", 2", and 2-1/4" square shafts. Features extension shafts with upset sockets to lengthen anchors.



HS (HOLLOW SHAFT) PIERS and ANCHORS

Uses 2-7/8" and 3-1/2" pipe shafts for a wide array of foundation applications.



SS & HS COMBO PIERS and ANCHORS

Adapters take all square shaft products and couple them with the 2-7/8" or 3-1/2" extensions. This allows a greater variety of uses for the helical pier.





HELICAL EXTENSION

Helical extensions with increasing diameters used to reach competent load-bearing soil.



NEW CONSTRUCTION BRACKET

Transfers load of structure to helical pier.

Helical Pier Type	Size inches (mm)	Torque Rating ft-lb (N-m)	Ultimate Capacity* kip (kN)
SS5 Square Shaft	1.50 (38.1)	5,500 (7,500)	55 (245)
SS150 Square Shaft	1.50 (38.1)	7,000 (9,500)	70 (312)
SS175 Square Shaft	1.75 (44.5)	10,000 (13,600)	100 (445)
SS200 Square Shaft	2.00 (50.8)	15,000 (20,300)	150 (668)
SS225 Square Shaft	2.25 (57.2)	20,000 (27,100)	200 (890)
278 Hollow Shaft	2.875 (73.0)	5,500 (7,500)	60** (267)
HS Hollow Shaft	3.50 (88.9)	11,000 (14,900)	77 (343)

* The Ultimate Capacity is based on the Installation Torque-Capacity relationship in soil.

** The 278 Ultimate Capacity is based on the shaft bearing directly on rock.

For more detailed design information, contact your local Civil Construction distributor found at www.abchance.com and request a Helical Screw Foundation Design Manual for New Construction.

Calculate bearing capacities using our exclusive HeliCAP® Engineering Software.
Demo available at www.abchance.com.



Anchoring the World

Since 1912, Chance has been the international leader in earth anchoring. Our helical piers and anchors are used worldwide to secure soil retention projects and deep foundation applications such as residential and commercial buildings, tower foundations and heavy equipment foundations.

Engineered for dependability and long-term stability, CHANCE® helical piers and anchors feature exclusive anchoring techniques, tools, designs and sizes that make other foundation methods a thing of the past.

Approved by all national building code agencies, CHANCE® helical piers and anchors are your first line of defense against poor soil conditions, landslides, floods and time.

Demand A Better Foundation

With nearly 400 dealers and distributors worldwide, Chance is ready to provide you everything you need to get the job done right. Chance offers engineering guidance, field supervision, accessibility, warehouses, material traceability, AWC-certified welders, technical support and complete documentation.

Ask a distributor near you for our comprehensive design manual (hardcopy or CD) or download a complete CSI Manu-Spec® online. Demand a better foundation today. Locate your nearest distributor at www.abchance.com.

Down. Right. Solid.

Our tagline is our promise. CHANCE® helical piers and anchors go **down** with power into the ground and are accurate, level and **right** the first time. The result is **solid** stability.



CHANCE™

Since 1912



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www.abchance.com



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