



CHANCE[®] Helical Pile 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 Pile Foundation System gives you the performance of concrete without the drawbacks and liabilities of driven piles and drilled shafts.

The helical pile 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 predetermined capacities are predictable, putting you in control.

Approved by national building code agencies BOCA, ICBO, SBCCI, CCMC and ICC, the CHANCE® helical pile 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 Pile 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 piles** 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 pile is a segmented deep foundation system with helical bearing plates welded to a central shaft. Load is primarily 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 (or Starter) 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 pile 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 or A-123.
- 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) PILES and ANCHORS

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



RS (ROUND SHAFT) PILES

Uses 2-7/8", 3-1/2" and 4-1/2" pipe shafts for a wide array of foundation applications.



SS & RS COMBO PILES

Adapters take all square shaft products and couple them with the 2-7/8", 3-1/2" or 4-1/2" pipe shaft extensions. This allows a greater variety of uses for the helical pile.





HELICAL EXTENSION

Helical extensions provide additional helix plate(s) for more capacity in competent load-bearing soil.



NEW CONSTRUCTION BRACKET
Transfers load of structure to helical pile.

**Chance®
Square Shaft (SS) Helical Products**

Product Series	Uplift/Compression Capacity Limit kip (kN)
SS 125	40 (178)
SS 5	55 (245)
SS 150	70 (312)
SS 175	110 (489)
SS 200	150# (668)
SS 225	200# (890)

**Chance®
Round Shaft (RS) Helical Products**

Product Series	Uplift/Compression Capacity Limit kip (kN)
RS2875.165	36 (160)
RS2875.203	44 (196)
RS2875.262	60 (267)
RS3500.300	91 (405)
RS4500.337	138 (614)

#Based on mechanical strength of coupling bolt.
Higher compression capacities available with Helical Pulldown® Micropile

For more detailed design information, contact your local Civil Construction distributor found at www.abchance.com and request a Chance Civil Construction Technical Design Manual, Bulletin 01-0605.

Calculate helical pile and anchor capacities using our exclusive HeliCAP® v2.0 Helical Capacity Design Software. Demo available at www.abchance.com



Wide Range of Case Histories

Visit our web site for specific examples of such applications as these:

- **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 piles** 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.



Anchoring the World

With both the CHANCE[®] and ATLAS[™] brands, Chance Civil Construction is the international leader in earth anchoring and structural mitigation. CHANCE Helical piles and ATLAS Resistance[®] piers are used worldwide to secure residential and commercial buildings, tower foundations, heavy equipment foundations and many other deep foundation applications.

Engineered for dependability and long-term stability, our systems feature exclusive anchoring techniques, tools, designs and sizes that make other foundation methods a thing of the past.

Selected by application, our systems are your first line of defense against poor soil conditions, floods and time.

Demand A Better Foundation

With nearly 400 dealers and distributors nationwide and in Canada, we are ready to provide you everything you need to get the job done right. We offer 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 Sample Specification Guide online. Demand a better foundation today. Locate your nearest distributor at our web site below.

Down. Right. Solid.

Our tagline is our promise. Our foundation and anchoring products go **down** with power into the ground and are accurate, level and **right** the first time. The result is **solid** stability.

CHANCE
Civil Construction

CHANCE[™]
Since 1912

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Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

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