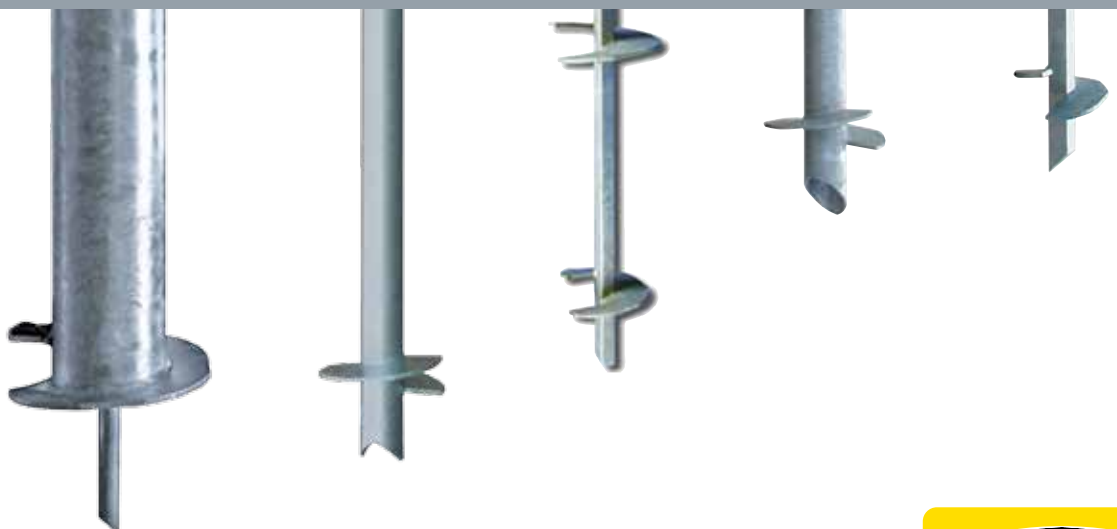


CHANCE®



Transmission Foundations

helical piles and guy anchors
for transmission structures



Grid locked on *your* transmission job?

Instant Foundation® helical piles go places concrete piers cannot

• Poor soil conditions.

Chance® Instant Foundation® helical piles install in almost any type of terrain, flood plains, glacial till, sand, swamps and bogs. Where soft soil conditions will not support heavy installation equipment, helical piles offer a logical choice. Their lighter installing equipment also lowers mobilization costs.

• Access limitations.

Helical piles are ideal in areas inaccessible for conventional construction, or when your concrete plant is too many miles away. The all-steel helical pile foundation is the solution.

• Weather variations.

Unlike concrete, Chance foundations can be scheduled throughout the year. Weather seldom stops or delays a construction timetable. They install even in wet and freezing conditions — with no waiting for concrete to cure.

• Frost heave regions.

By placing load-bearing helix plates into competent bearing strata well below active expansive clays or frost zones, Chance® helical pile designs can be far shorter than concrete piers or driven piles for equivalent capacities.

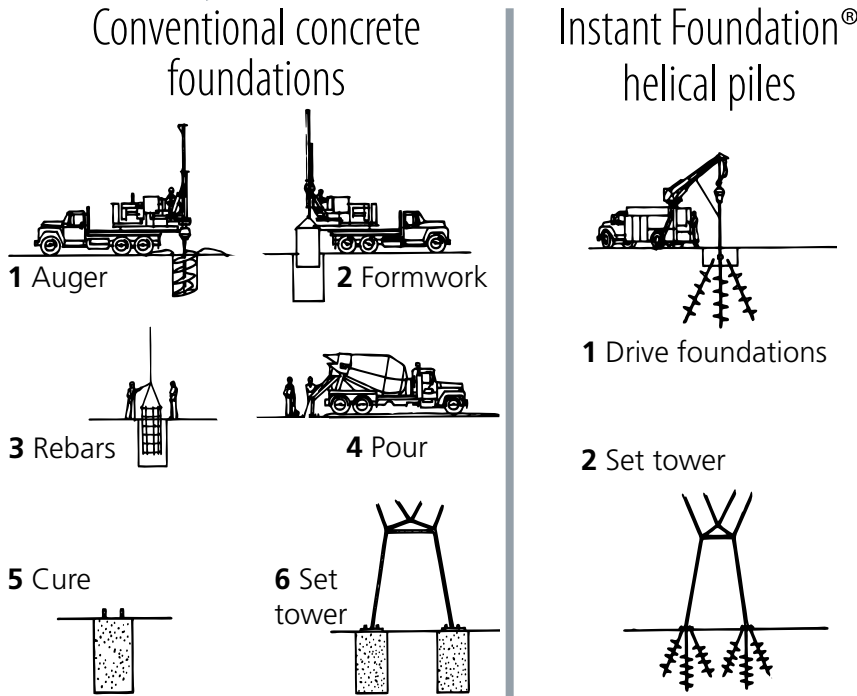
This makes helical piles ideal for repairing/replacing failed foundations.



At right above, frost-heaved concrete piers to be replaced by Chance® helical piles to realign transmission tower legs.

Set your toughest sites in hours, not days!

30 to 1 Time Advantage in days versus concrete piers



• **Cut time and costs.**

• **No soil removal.**

• **Rapid installation.**

• **Immediate loading.**

• **No return days later.**

Compared to concrete, Chance® Instant Foundation® helical piles conserve labor, materials, equipment . . . and time. Chance helical piles usually install at the rate of 25 to 30 per crew-day. Once the foundations are in place, superstructures can be erected (or equipment mounted) immediately. *That's more than a tower per crew day!*

• **More than a tower per crew day!**



Join us in sustainable environmental responsibility

Chance® Helical Foundations and Anchors are made of 90% recycled material by environmentally conscious processes that make the most efficient use of raw materials and natural resources.

Green alternative to concrete – no water consumption.

Recycled material saves resources. Sustainable – just “unscrew” & reuse.

Low-impact, fuel-efficient installation – reduces carbon footprint.

Designed for long life, our sustainably made goods use less of the Planet but deliver more benefits to us all.

Any load. Anywhere.

No matter what your structure type . . .

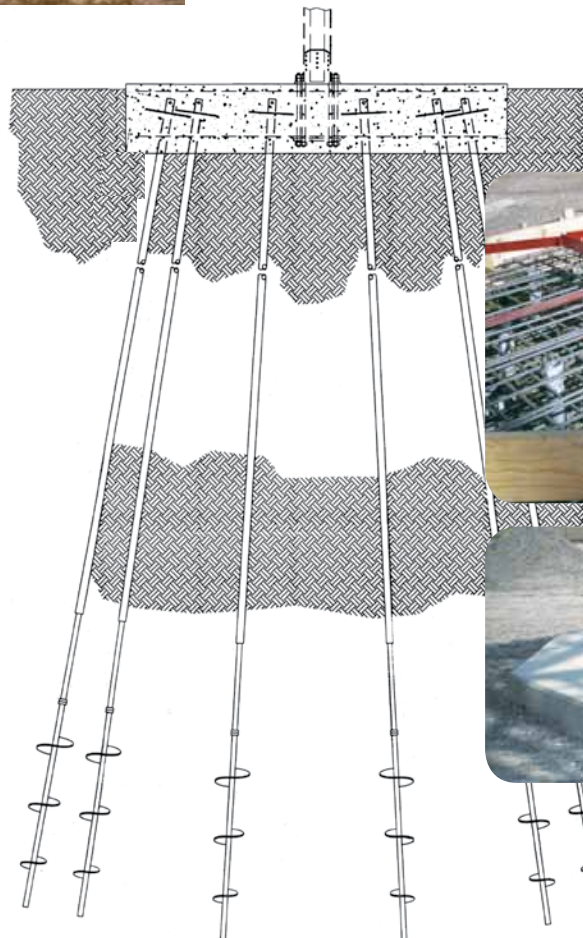
Self-Supported Towers

Three connection methods

1. Direct-connection link for single helical pile per leg.



2. Steel grillages for multiple helical piles per leg.
 - Custom-built to job specs
 - Factory-preassembled
 - Site-assembled – bolted or welded



3. Concrete cap for multiple helical piles per leg.



Chance[®] has been there and done that!

Monopole Towers

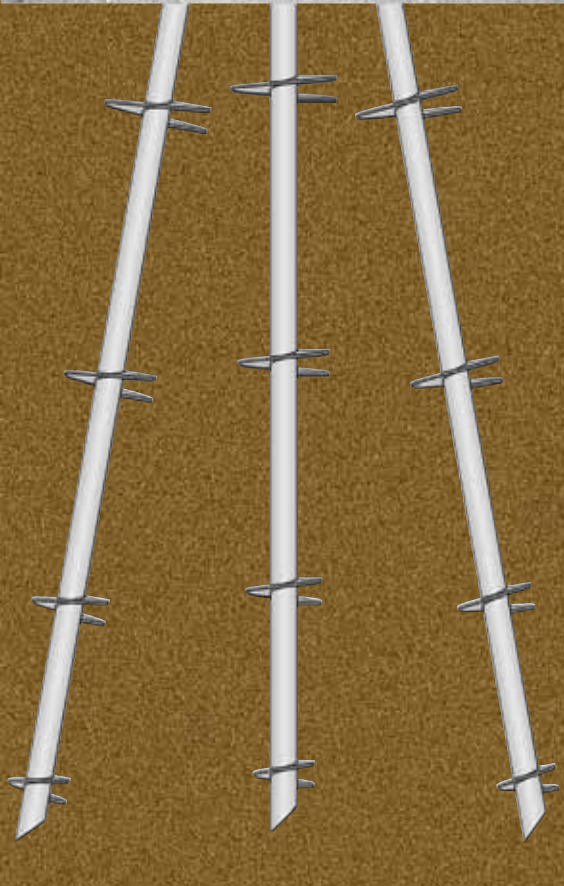
Two connection methods

1. Concrete cap for multiple helical piles.



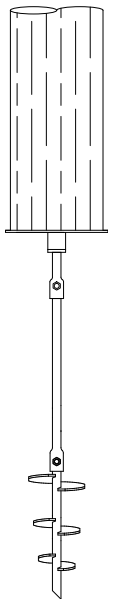
2. Steel grillages for multiple helical piles per leg.

- Custom-built to job specs
- Factory-preassembled
- Site-assembled – bolted or welded



Direct-Buried Pole Supports

Our helical pole support system sets directly under a pole and transfers load to stable strata below weak surface conditions.



Any load. Anywhere.

More than Instant Foundation® piles . . .

Guyed Towers

Two connection methods



1. Direct-connection link for single helical pile.

Chance® helical piles and guy anchors working together provide adequate lateral support and resistance to overturning moments.

For their details and installing tools, see our Catalog sections 4 and 4A.



2. Steel grillages for multiple helical piles.



Top and bottom guy terminations

Our Adjust-A-Grip® Deadend Grips come in types to serve both the tower and anchor connections. Sizes for galvanized-steel guy strands up to 1" in diameter include ratings for loads up to 104,500 lb. For aluminum-coated guy strands, sizes range to 1.270" diameter with a 142,900 lb. load rating. For their specific details, see our Catalog section 15.



Foundation and Anchor Design Software

Our proprietary design tool, HeliCAP® Software processes soils data and loading needs to derive the best helical pile solutions. Many geotechnical engineers and consultants engage this powerful tool to specify helical piles for compression loads and helical anchors for tension.



You make these inputs:

1. Soil type, layer depths, strength parameters;
2. Anchor length, helix configuration, angle of installation, distance to datum;
3. Load – magnitude and direction.

It gives you this output:

Bearing capacities in tension and compression of an anchor in the given soil conditions.

Chance® brings experience and expertise!

Soil and load-matched capacities: Any load. Anywhere.

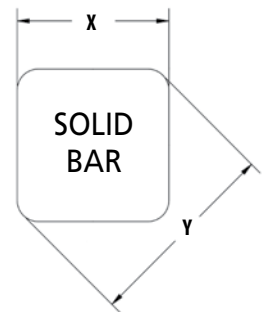
To match a wide range of site conditions, Chance® foundations include single-piece and extendable designs. Your crews have many options available for unusual or peculiar installation situations, including helical piles with 1½", 1¾", 2" or 2¼" solid square shafts and 2⅞", 3½", 4½", 6⅝" or 8⅝" pipe shafts with helical plates from 6" to 16" in diameter. These offer maximum vertical capacities per pier up to 300 kips (1334 kN). Helix plates of mill-specified high-strength steel distribute the up-lift and compression forces. The central shaft transfers horizontal shear, torsion and bending loads to surrounding soils. Properly selected helical-pile foundation groups can support virtually any transmission structure loads in any soil conditions.

For their details and associated installing tools, see our Catalog section 4B.

Helical product ratings for tension and compression

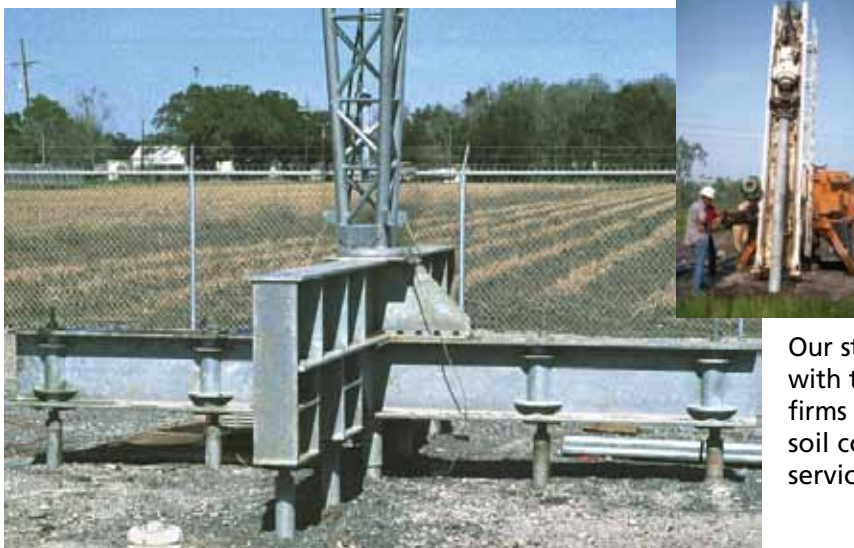
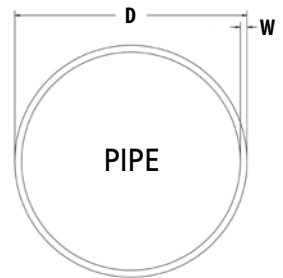
Square-Shaft Series

SS125	SS5	SS150	SS175	SS200	SS225
4,000 ft-lb	5,500 ft-lb	7,000 ft-lb	11,000 ft-lb	16,000 ft-lb	23,000 ft-lb
50 kip	70 kip	70 kip	100 kip	150 kip	200 kip
X = 1.25"	X = 1.50"	X = 1.50"	X = 1.75"	X = 2.00"	X = 2.25"
Y = 1.56"	Y = 1.91"	Y = 1.91"	Y = 2.27"	Y = 2.57"	Y = 2.93"



Round-Shaft Series

RS2875.203	RS2875.276	RS3500.300	RS4500.337	RS6625.280	RS8625.250
5,500 ft-lb	8,000 ft-lb	13,000 ft-lb	23,000 ft-lb	40,000 ft-lb	60,000 ft-lb
60 kip	90 kip	120 kip	140 kip	200 kip	300 kip
D = 2.88"	D = 2.88"	D = 3.50"	D = 4.50"	D = 6.63"	D = 8.63"
W = 0.20"	W = 0.28"	W = 0.30"	W = 0.34"	W = 0.28"	W = 0.25"



Engineered solutions,
support staff on call

Our staff of registered professional engineers work with transmission line owners and their consulting firms to help match helical pile design to site-specific soil conditions and load requirements. For this free service, contact your Hubbell representative today.

Any load. Anywhere.

Transmission Foundations

Since the 1970's, Chance[®] expertise and resources have perfected power-installed helical foundations and guy anchors supporting many utility line structures. You know Chance as the World's foremost authority on earth anchoring for not only distribution poles, but also for your transmission structures.

For your design assistance, our application engineers are on call to help. We also offer our proprietary HeliCAP[®] Helical Capacity Design Software to help you design foundations to site-specific soil conditions and load requirements.

Our foundations are designed to withstand the application of load immediately after installation. Helix plates of mill-specified high-strength steel distribute the up-lift and compression forces. The central shaft transfers horizontal shear, torsion and bending loads to surrounding soils.

You can rely on Chance foundations to perform as designed. They're field proven, field respected.

About Hubbell Power Systems

Hubbell Power Systems (HPS) manufactures a wide variety of transmission, distribution, substation, OEM and telecommunications products used by utilities. HPS products are also used in the civil construction, transportation, gas and water industries. Our product line includes construction and switching products, tools, insulators, arresters, pole line hardware, cable accessories, test equipment, transformer bushings and polymer precast enclosures and equipment pads.

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

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