Substation Foundations | helical piles for equipment and buswork supports
Faster substation foundations for new builds and repair work


Compared to concrete methods, Chance® Instant Foundation® helical piles conserve labor, materials, equipment . . . and time. Chance foundations 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!

No delays. No returns to the job site days later.

Instant Foundation® helical piles solve difficult site problems

Poor soil conditions. Frost heave. Access limitations. Weather variations. Soil removal or disposal — none required!

With adequate torque and down pressure from rotary digging equipment, Chance® Instant Foundation® helical piles install in almost any type of terrain, flood plains, glacial till, sand, swamps and bogs. Commonly available digging equipment can install them with the addition of only Chance Kelly-Bar adapters, torque indicator and foundation drive tool.

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.

They are not only ideal in areas inaccessible for conventional construction, but also for repairing/replacing failed foundations.
**CHANCE® Instant Foundation® helical piles**

**Soil and load-matched capacities**

The wide range of Chance® foundations includes single-piece and extendable types to adapt to site conditions. Your crews have many options available for unusual or peculiar installation situations, including helical piles with $1\frac{1}{2}''$ to $1\frac{3}{4}''$ solid square shafts and $2\frac{7}{8}''$, $3\frac{1}{2}''$ or $4\frac{1}{2}''$ pipe shafts with helical plates from $6''$ to $16''$ in diameter. These offer maximum vertical capacities per pile up to 200 kips (890 kN).

For large-diameter ($6''$ or greater) helical piles with capacities up to 300 kips (1334 kN), consult your Hubbell Power Systems representative.

**Site-specific engineered solutions**

Our anchor/foundation engineers work with substation owners and their consulting firms to help match helical pile designs to site-specific soil conditions and load requirements. 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.

In areas prone to frost heave or with expansive clays, Chance® helical pile designs can be far shorter than concrete piers or driven piles for equivalent capacities.

By placing load-bearing helix plates well below the active or frost zone and into competent bearing strata, properly sized helical piles support design loads with reliable predictability.

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.*
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. Now you can take advantage of Chance as the leading innovator in power-installed helical foundations for your substation components.

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.