

Foundations For Power Transmission

High Quality Utility Foundations
Safe, Trusted and Manufactured in the USA

magnumpiering.com
800-822-7437

MAGNUM
PIERING
designed to support

Fabrication & Quality Control

"...these foundations undergo continuous, multi-step, quality control process including 3rd party inspections."

MAGNUM's Difference

MAGNUM's process industry foundation systems are designed to order to ensure compatibility with any equipment, skid, pipe arrangement or larger foundation system. Steel foundation systems utilizing helical piles offer extremely versatile solutions for your project; overcoming difficult site conditions and increasing production rates for difficult schedules. MAGNUM® Helical piles can be installed quickly with no vibration and no soil spoils. All-steel foundation systems do not require any curing time, allowing for immediate pipe or equipment installation. Helical piles can be smaller than single concrete caissons and require minimal crew and installation equipment. These pile systems can be installed in congested areas with low headroom to minimize outages. All of this means mobilization costs and schedules are reduced and up-time is increased. Rapid construction times can be as little as a single day.



Fabrication and Quality Control

MAGNUM® foundation systems are manufactured in the USA according to our ISO 9001 approved Quality Program. Each part of these foundations undergo a continuous, multi-step, quality control process including 3rd party inspections. With highly skilled crews of fabricators, manufacturing turnaround can meet even the tightest schedules.



**Quality,
Designs,
Constructibility,
Experience,
and Safety
You Can Trust**



On Schedule

Shipping and Logistics

Timely and efficient job site deliveries are critical for keeping construction projects on schedule. Leveraging the latest technologies can provide real-time visibility, optimize routing, and streamline logistics operations, ensuring materials and equipment arrive precisely when needed.

All of Magnum's foundation systems are manufactured to order in Cincinnati, Ohio. Our 140,000+ square foot fabrication facility operates state of the art equipment increasing our manufacturing times and enabling us to better control quality.

Clear and consistent communication with suppliers and carriers is another essential aspect of efficient job site logistics. Our proactive communication ensures that all parties involved are aware of the delivery schedules, site access requirements, and any specific handling or storage needs.



Buy American Act

All MAGNUM® Piering, Inc. products are manufactured in the United States. The raw materials used to produce our products are manufactured in various United States Steel Mills. All materials meet all provisions of the Buy American Act.

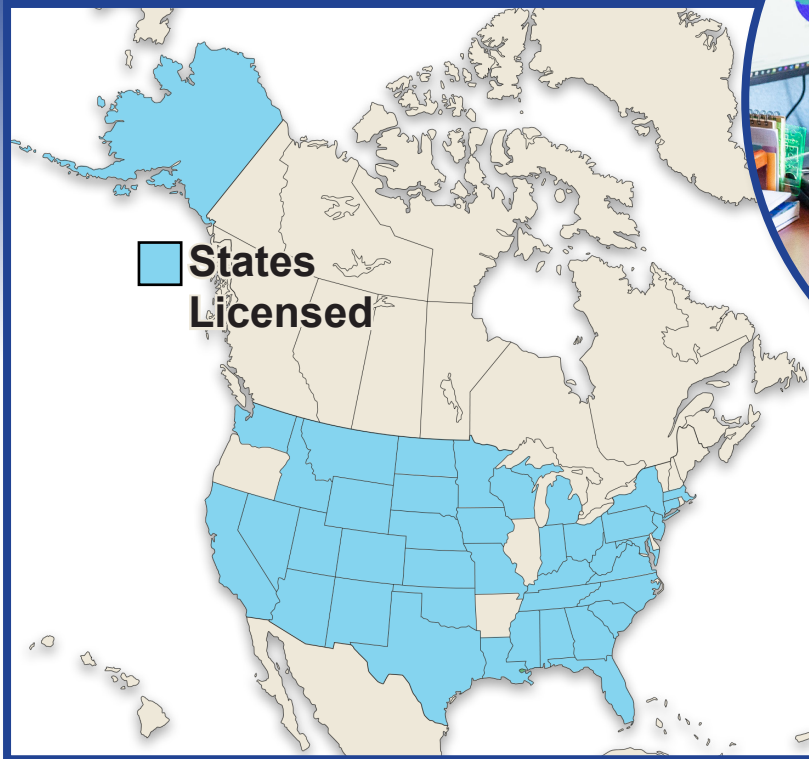
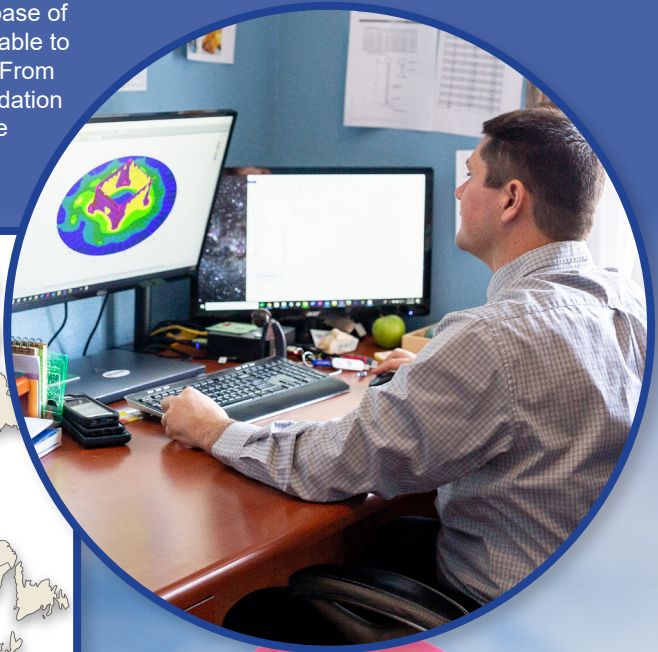
If you have any questions or need any further information please do not hesitate to contact me.

Thank you,

Todd Paddock
Vice President Manufacturing
Office 513-759-3348 ext. 237

MAGNUM[®] Geo-Solutions Engineering Services

Licensed in nearly all states and equipped with a growing database of over 3,000 project sites, Magnum's staff of foundation engineers are able to apply its experience to assist projects throughout the United States. From support during bidding and design process to turn-key industrial foundation designs, load testing, and field observation, they ensure quality all the way through to project completion. Trust is their goal.

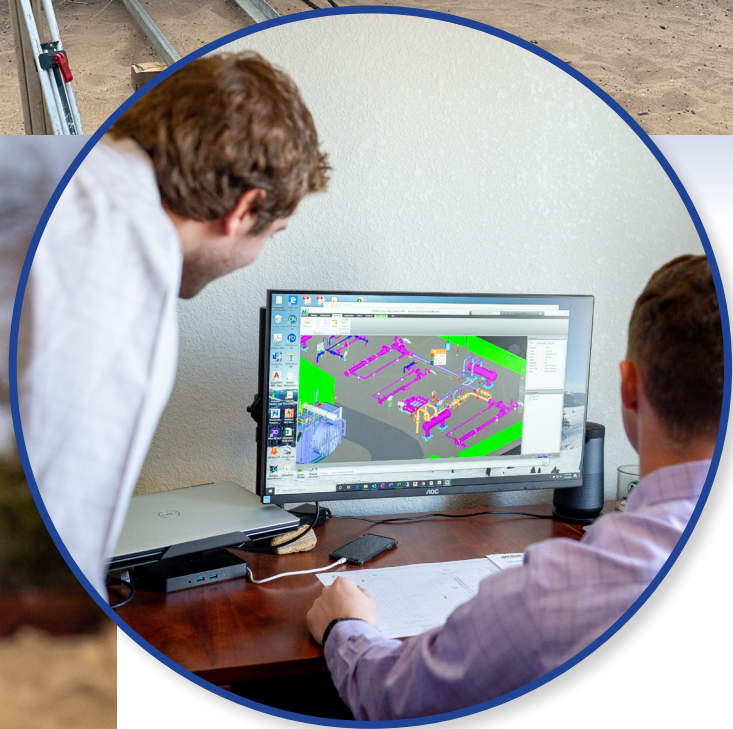


Typical Projects

- Foundation repair and underpinning
- New construction piles
- Tension anchors
- Highway and bridge repairs
- Tiebacks, Shoring
- Concrete-less foundations
- Slab lifting and void filling
- Earth anchors and slope stabilization
- Retaining wall design
- Load testing assistance
- Structural Steel Support Frame
- Midstream processing equipment foundations
- Process piping & pipeline supports



Tested - Proven



Services:
Compression Load Testing
Tension load Testing
Lateral Load Testing
Site Observation
Quality Control

MAGNUM
PIERING

Page - 5

Copyright (C) 2021-2025 All Rights Reserved

Helical Piles

Our product lines range from 2-7/8" diameter piles up to 18-5/8" diameter, including custom design sizes. Our value engineered pile designs make any commercial job efficient and safe. Limited access installs are not an issue when using helical piles. These piles don't create ground spoils, don't need concrete or grout and still provide high capacities.

We have a pile solution for whatever your capacity needs may be. High production rates mean no lost time on the job site. A variety of pile cap connection options are also available

We design helical piles for a rapid and precise install in the most challenging soil conditions. Our patented Dual Cutting Edge Helix helps cut through tough material. Combine this with our moment balanced helices and you will achieve an extremely accurate install with minimal to no walking or wobbling of the pile during installation.



MAGNUM
P I L E S

Page 6
Copyright (C) 2025 All Rights Reserved

All Magnum Products Made in U.S.A.
U.S. Patents 6,058,662, D612,954, Other Patents Pending

Advantages:

Capacities of 250 tons and higher

Variety of Pile Cap connection options.

Value Engineered Designs

High Production Rates

No Spoils, No Concrete or Grout, Clean

Limited Access Installs

Smaller Crew Size

SAFE!

Plate Cap

Extension

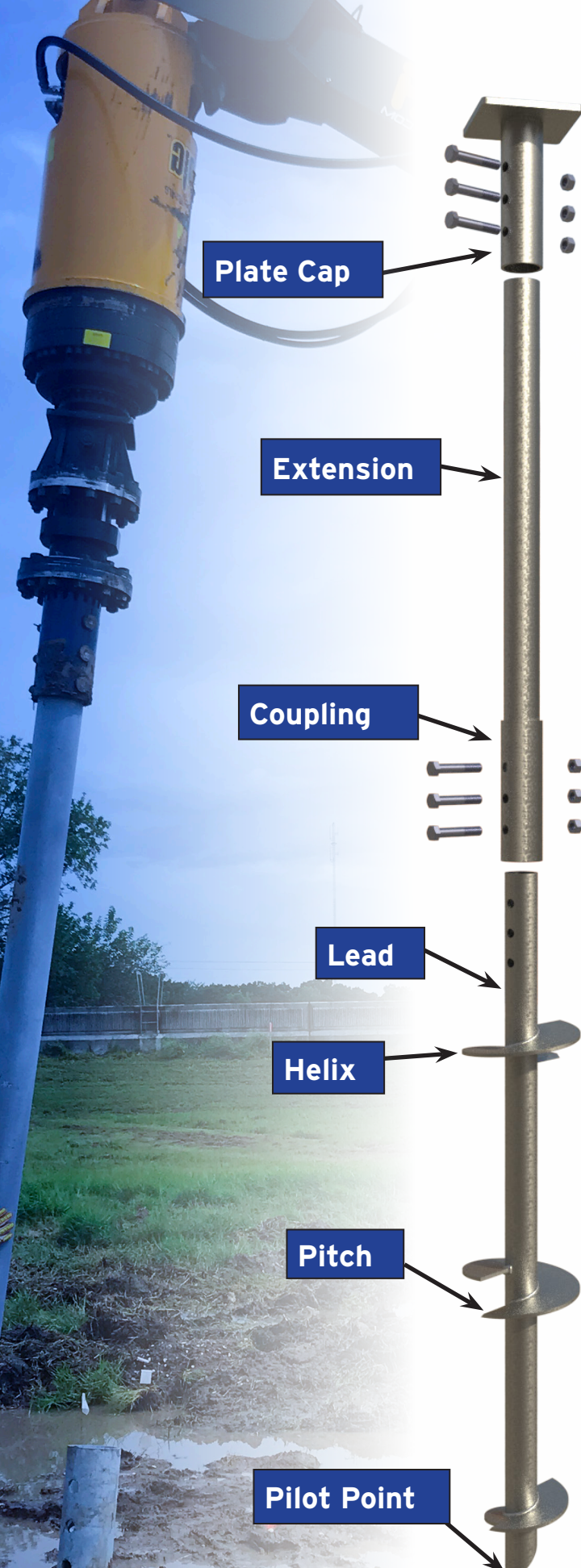
Coupling

Lead

Helix

Pitch

Pilot Point



T-Lines

Helical Foundations for Transmission Lines

Power substations and transmission lines are critical components of the electrical grid, responsible for distributing and regulating the flow of electricity over vast distances. These infrastructure elements require robust and reliable foundations to ensure their stability and longevity, even in the face of extreme weather conditions, seismic activity, and other environmental factors.

MAGNUM® Helical Piles have emerged as a preferred choice for power substations and transmission lines due to their exceptional strength, durability, and versatility. These foundations are designed to withstand immense loads and forces, providing a secure base for the structures they support.

Offering several advantages over traditional concrete foundations, Helical Piles allow for faster installation times, reduced environmental impact, and the ability to adapt to various site conditions. They are particularly well-suited for remote or challenging terrain, where access and construction logistics can be complex.

MAGNUM® understands the importance of quality control in steel foundation construction cannot be overstated. Failure to adhere to rigorous quality control practices can lead to structural deficiencies, compromising the integrity of the entire power infrastructure. ISO Certified, MAGNUM uses internal and external quality control inspections to assure its quality and product consistency are maintained.



Towers Supported on Helical Piles:

- Lattice Towers
- Monopole Towers
- H-Frames
- A-Frames
- Timber Poles
- Steel Poles
- Guyed Towers
- Self-Supporting Towers



Substations

Foundation Solutions For Limited Access or Remote Sites

MAGNUM® Helical piles are particularly well-suited for power substations due to their ability to accommodate varying soil conditions. The helical plates can be sized and spaced according to the specific soil properties, ensuring optimal load transfer and resistance to lateral and uplift forces. This versatility allows for reliable foundations even in challenging soil environments, such as expansive clays, loose sands, or areas with high water tables.

Moreover, helical piles can be installed quickly and efficiently, minimizing disruptions to ongoing operations and reducing construction timelines. Their modular design allows for easy transportation and installation, even in confined spaces or areas with limited access. This makes helical piles an attractive choice for power substations in urban or densely populated areas, where space is at a premium.

One of the significant advantages of helical pile foundations is their ease of installation in restricted areas, making them an ideal choice for power substations and electrical utilities. These projects often require construction in confined spaces, such as urban settings or existing facilities, where traditional foundation methods may be impractical or disruptive.

Helical piles are installed using compact and maneuverable equipment, allowing for installation in tight spaces and areas with limited access. The installation process involves hydraulically driving the helical plates into the ground, eliminating the need for extensive excavation or heavy machinery. This minimizes site disturbance, reduces the risk of damage to surrounding structures, and minimizes the overall environmental impact.



Significant advantages over traditional concrete foundations

Faster Installation – Helical piles can be installed quickly with minimal equipment and labor, eliminating the need for excavation, formwork, and concrete curing, which can delay projects.

Lower Cost – By eliminating the high material and labor costs associated with concrete foundations, helical piles provide a cost-effective solution that reduces overall project expenses while maintaining durability and reliability.

Unmatched Accessibility – Compact installation equipment allows helical piles to be placed in remote, environmentally sensitive, or hard-to-reach locations—where concrete trucks and heavy machinery simply can't go.

Enhanced Stability – Magnum® Helical Piles are engineered to provide outstanding load-bearing capacity, offering superior resistance to compression, tension, moment, and lateral forces, ensuring long-term structural integrity in even the most challenging conditions.



Utilities

Keeping the Lights On Keeping the Lights On

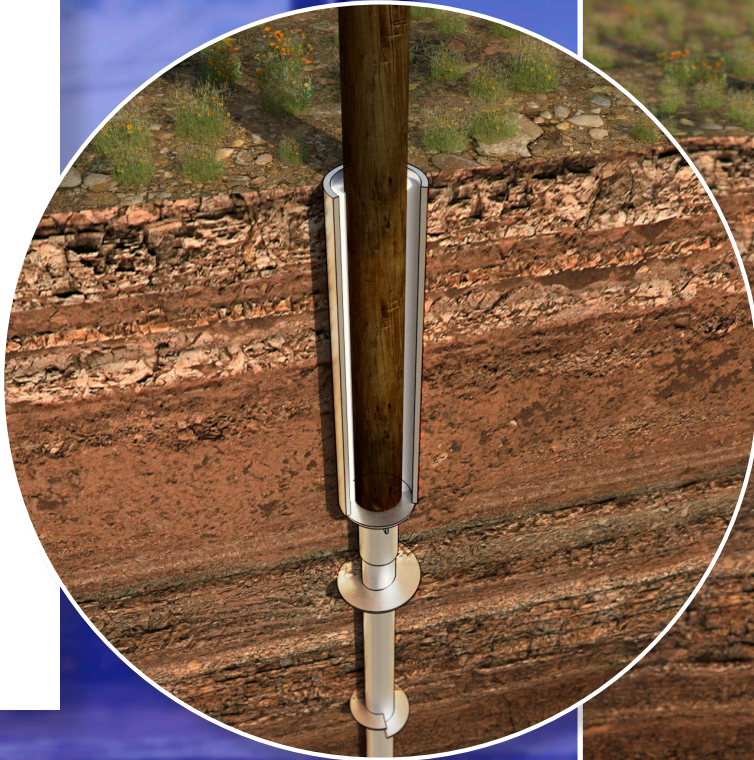
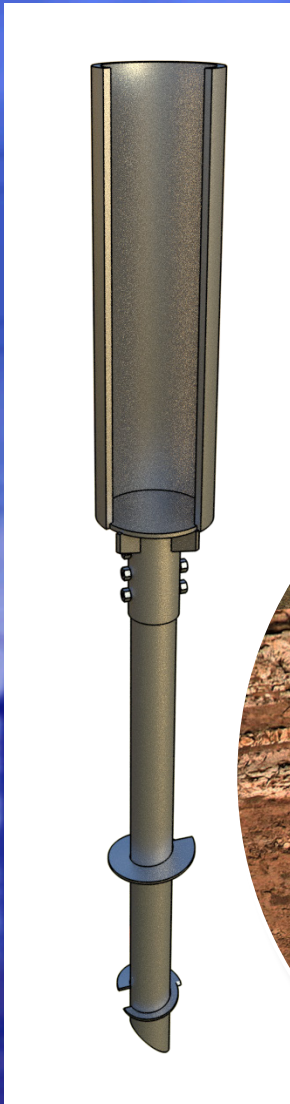
Steel foundations form the backbone of modern municipal power grids and transmission systems, providing crucial support for power lines and electrical infrastructure. These robust structures are designed to withstand extreme weather conditions, seismic activity, and the constant stress of supporting heavy electrical equipment.

MAGNUM® steel foundations are engineered support systems embedded deep into the ground, typically consisting of steel helical piles and steel caps. They serve as the anchor points for power lines, transformers, and other critical components of the electrical grid. The importance of these foundations in power infrastructure cannot be overstated, as they ensure the stability and longevity of the entire power distribution network.



Direct Embed Helical Pile Foundations

MAGNUM® Direct Embed Helical Piles for wood poles, offer a variety of advantages. This foundation system increases the longevity of the poles and lines and offers increased lateral capacity as well. Direct embed piles also offer resistance against weather conditions such as wind and ice shear. These piles also resolve ground issues such as soft soil conditions or high water. This system is safe, quick and requires a minimal crew. All these advantages effect the bottom line by reducing outages and the need for pole replacement.

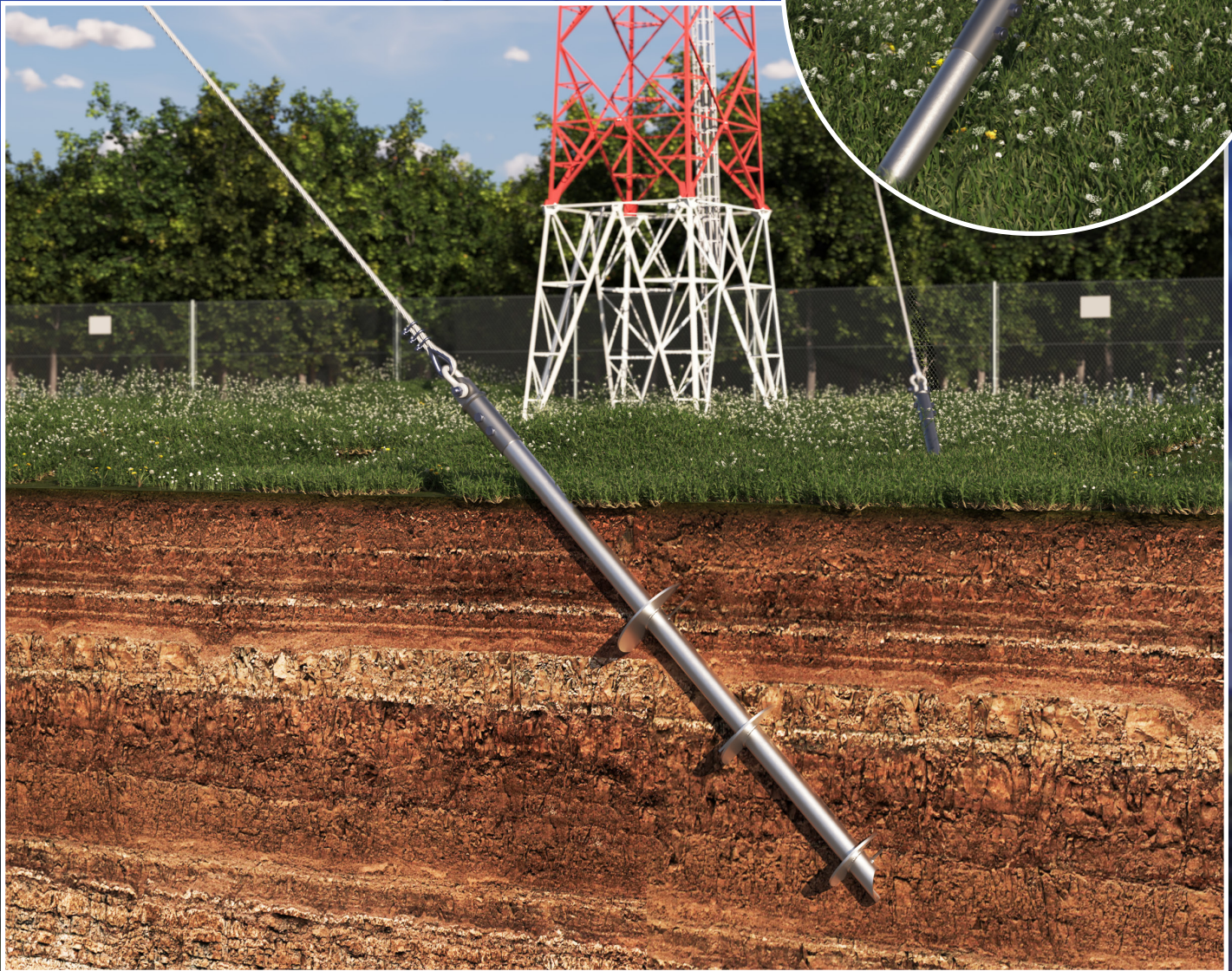


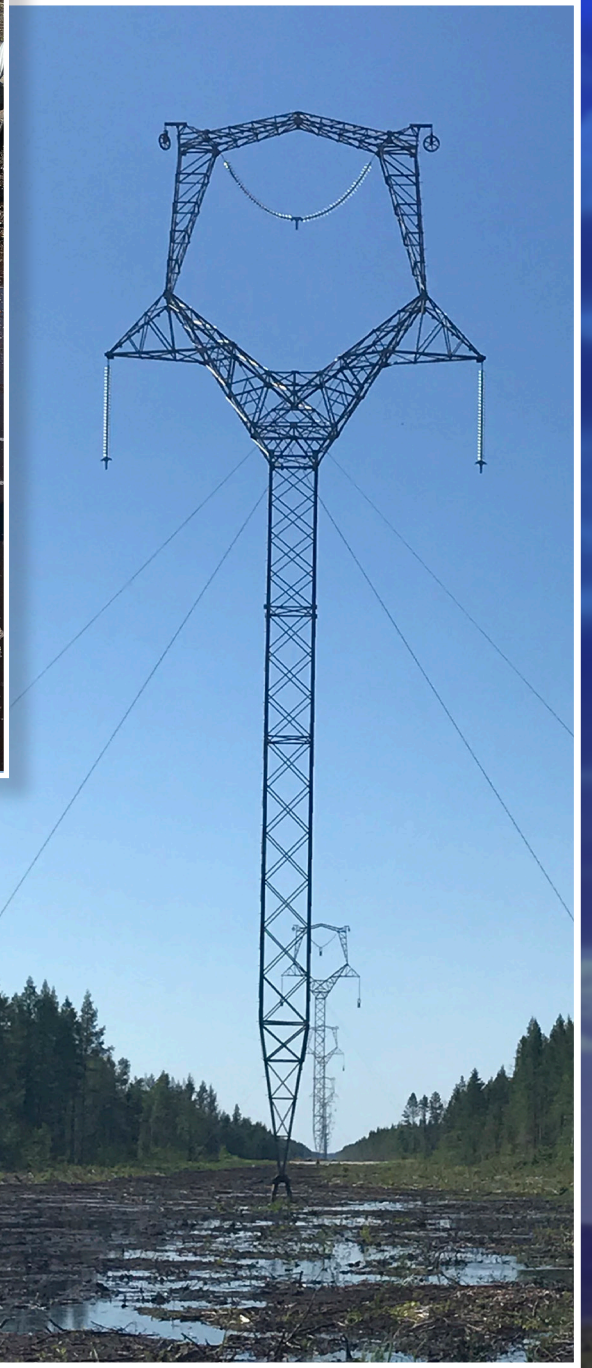
Tower Anchors

Standing Tall, Helical Plies with Guy Wire Anchor Caps

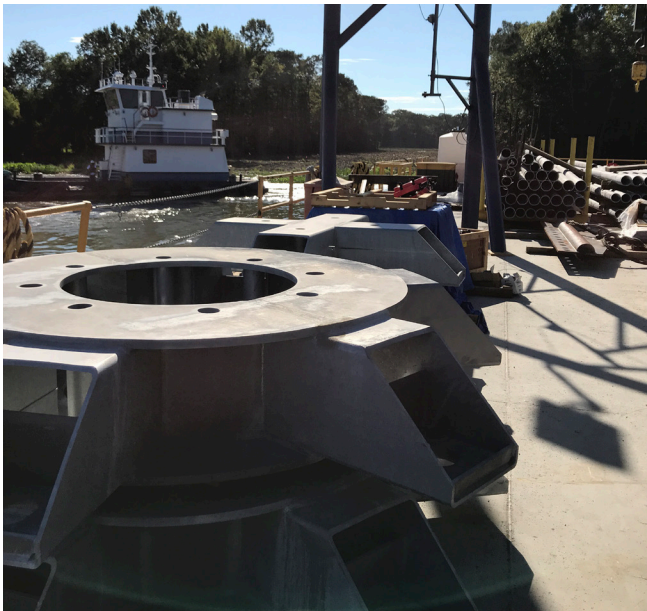
Helical pile anchor caps are essential components in tower anchoring systems that utilize helical piles and guy wires. Their primary purpose is to provide a secure and durable connection point between the helical pile and the guy wire, ensuring the stability and integrity of the entire anchoring system.

MAGNUM® Anchor caps may incorporate additional features such as welded gussets or reinforcing ribs to enhance their strength and rigidity. These design elements help resist the lateral and uplift forces exerted by the guy wires, ensuring the anchoring system remains secure under various loading conditions.





















MAGNUM[®]

P I E R I N G

designed to support

For more information or to talk with a representative:

800-822-7437 | www.magnumpiering.com