

Technical Information

Product Name:

Manufacturer:

System Definition:

Applications & Specifications:

Magnum® Helical Pile Foundation System™

Magnum Piering, Inc.
6082 Schumacher Park Drive
West Chester, OH 45069
800-822-PIER
513-777-5374 (fax)
www.magnumpiering.com



Magnum's Helical Pile Foundation System products are sometimes referred to generically as helical piles, helical anchors, helicals, screw piles or earth anchors. Helical Piles are screwed into the ground using a torque motor. The lead or first section is designed with one or more helical blade(s) welded to the pile's shaft, and each blade cuts its way downward into the soil as the pile is rotated by the motor. Additional pile sections called extensions are added to the lead section until the desired pile depth is achieved.

Round Shaft Piles

Magnum's helical pile product line consists primarily of round shaft piles, a design that provides considerably more lateral strength and stability than the historically popular square bar shaft design.

Applications – New Construction & Wall Tiebacks

Magnum Helical Pile Foundation products can be used as new construction piles and for retaining wall tiebacks.

Specifications:

- Length: Leads & Extensions 6 ft. (call for custom sizes)
- Round Shaft: Varies, 2 7/8" to 5.72" O.D.
- Wall Thickness: Varies, 0.125" to 0.48"
- Helix Blade Sizes: 8", 10", 12", 14", 16", 20" & 24" Diameter
- Helix Blade Design: Single Cutting Edge (standard)
Dual Cutting Edge (for difficult soils)
- Corrosion Protection: Hot Dip Galvanized, Bare Steel or Epoxy Coated
- Capacity: 8 to 98 Tons

Your Local Authorized Magnum® Piering Installer



Magnum® Helical Pile Foundation System™



HELICAL

High Capacity Round Shaft Helical Piles for New Construction and Foundation Repair.

Simply The Best!

2 7/8", 3", 3.5", 4.5", 5.5" & 5.72" Diameter Helical Piles

Patented Dual-Cutting Edge Blades for Problem Soils

Comprehensive Engineering Manual & Geotechnical Support

Fast Installation with No Soil Spoils

Install in Any Weather Condition - Even Through Deep Frost

Authorized and Trained Installers

Manufacturer Warranty



Authorized Installer

Prevent Shallow Foundation Failure Before It Starts with the Magnum® Helical Pile Foundation System™

Pre-construction deep foundation alternative to timber and steel pilings and concrete caissons. Excellent for supporting buildings, retaining wall construction, boardwalks, boat docks, decks and more. Ideal for repairing failed foundations and retaining walls.



Magnum Helical Pile Caps for new construction & repair of foundations and retaining walls

What is a Helical Pile Foundation System & How Does It Work?

Magnum Helical Piles are an economical deep foundation alternative to wood and steel driven pile or concrete caissons. They are also a sensible and often more reliable alternative to shallow footing and reinforced mat foundations. In addition, Magnum Helical Piles are excellent for supporting low to high rise commercial construction, new residential buildings and additions, retaining walls, boardwalks, and more. The torque required to install a helical pile is a good indication of the strength, density, and bearing capacity of soils at the depth of the helical cutting blades. Once the helical pile is successfully installed, it serves as a deep foundation support with both compression (downward) capacity and tension (upward) capacity. Magnum Helical Piles can support loads of up to 98 tons each.



No Soil Spoils, No Vibration, No Heavy Equipment

Unlike the equipment and processes required to install other deep foundations, helical piles do not create any soil spoils that must be removed or distributed within the site. The installation equipment is small, easily maneuverable and does not create vibration. These features and benefits make Magnum Helical Pile Foundations an efficient and affordable solution for jobsites with restrictive access or environmentally sensitive conditions.

When you want the very best protection against foundation failure, you can trust Magnum Helical Pile Foundations to protect your commercial or residential structures.

Trust & Confidence with Magnum® Piering

Capacities of up to 98 Tons & Increased Lateral Stability

Magnum offers many different helical foundation products for supporting a wide range of structures from heavy commercial buildings to light weight boardwalks, additions and boat docks. All Magnum Helical Piles are manufactured in the U.S. following an accredited ISO9001 quality program using high strength structural tube shafts and rigid connectors that resist buckling and lateral foundation loads.



Patented Dual-Cutting Edge Helix for Difficult Subsurface Conditions

Magnum's patented Dual-Cutting Edge Helix is unique in the industry. This design feature enables Magnum installers to penetrate difficult soils such as stiff clay and dense gravel, frozen soils, tree roots, debris laden fill, and even weak sedimentary bedrock.



Hot Dipped Galvanizing for Maximum Corrosion Protection

Hot Dipped Galvanizing is available on all Magnum Helical Pile Foundation products including helical pile caps. This process provides the highest degree of corrosion protection possible from a coating process. In soils with moderate-to-high corrosivity levels, Magnum piles will continue to provide support well over 100 years.



Extremely Fast Installation with Minimal Disturbance to Existing Landscaping

On most projects, Magnum Helical Pile Foundations can be installed more quickly than traditional concrete caissons, or steel and timber piles. They can be installed in any kind of weather and are not subject to delay from groundwater and caving soils. The speed of installation alone often results in significant cost savings in comparison to any other foundation types.



Most Comprehensive Engineering Manual & Geotechnical Support in the Industry

Magnum Piering is proud to offer the most comprehensive engineering and technical support in the industry. Magnum makes geotechnical and structural engineers available for foundation consultation and planning. In addition, the Magnum Helical Pile Foundation Technical Reference Manual contains all the necessary engineering data required for designing and specifying a helical pile foundation plan.



Welcome to the Trust & Confidence of Magnum Piering

Simply the Best!

