



# **INTECH<sup>®</sup>**

**ANCHORING  
SYSTEMS**

**DEEP FOUNDATION NEW CONSTRUCTION BROCHURE**



# BUILD ANYTHING, ANYWHERE

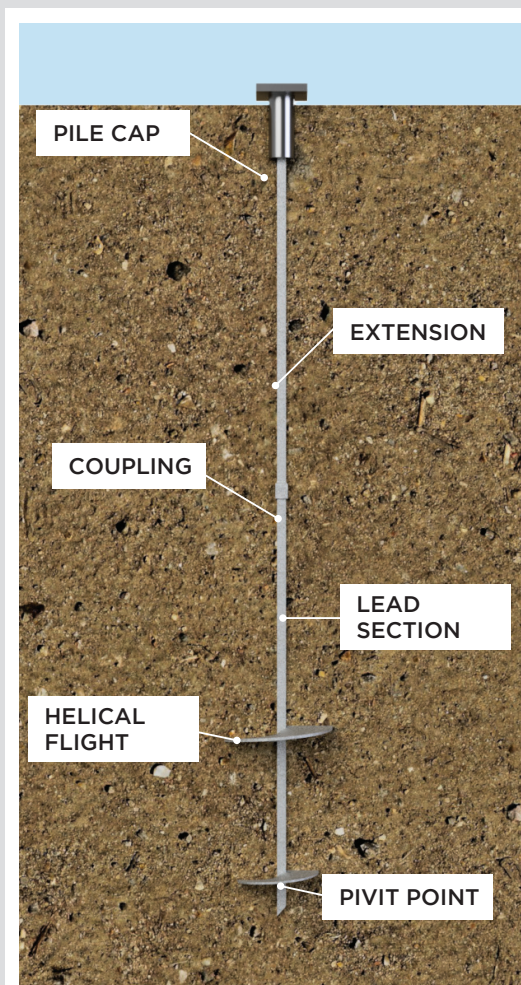
Intech Anchoring Systems provides a range of reliable and cost-effective deep foundation solutions, including helical piles and hollow bar solutions. These solutions have been meticulously engineered, rigorously tested, and proven effective in tackling demanding site conditions. They are specifically designed to address challenges such as expansive soils, high water tables, unstable fill areas, and loose or collapsible soils. With Intech Anchoring Systems, you can trust that your construction projects will have the necessary foundation support to overcome these site complexities and ensure long-term stability.

## INTECH OFFERS:

- EXTENSIVE PRODUCT RANGE
- ON TIME DELIVERY
- ENGINEERING EXPERTISE & EXPERIENCE
- CUSTOMIZATION CAPABILITIES
- INNOVATIVE SOLUTIONS
- FIELD CERTIFICATIONS
- LOAD TESTING
- INSTALLATION EQUIPMENT

## IDEAL HELICAL PILES

Helical piers offer precise and reliable deep foundation anchoring, even in challenging soil conditions, enabling builders to embark on new projects with confidence. These piers are cost-effective to install, minimize disruptions to the property, and can be tailored to meet specific local site requirements. Their versatility and adaptability make them an ideal choice for construction in various locations, ensuring stability and structural integrity. With helical piers, builders can confidently build new projects anywhere, even on the poorest of soil conditions, knowing they have a dependable foundation solution at their disposal.



## BENEFITS:

- Predictable results
- Cost-effective
- Proven engineered system
- Labor-saving with smaller crews
- No predrilling
- Site specific to conditions and loads
- Numerous terminations available
- Load transfer by end-bearing, not skin friction
- Extendable with bolted joint connections
- Removable / Reusable

## SOLVING CHALLENGES:

- No belled and/or long length grouted bond zones required
- Anchors transfer load to soil by end bearing, not skin friction, which shortens their length
- No de-watering for below water-table applications
- Installs in any weather or limited access area
- No drilling or spoils to remove
- Permanent or temporary (removable)

## VERTICAL INSTALLATION

Helical piers have become the trusted choice for builders and engineers when it comes to designing, constructing, and supporting foundations for new construction projects. In new construction projects, helical piles are commonly installed vertically to provide reliable foundation support.

The installation process of helical piles involves screwing the piles into the ground until they reach the desired depth and installation torque. Once the piles are installed, a wide range of new construction caps can be utilized to connect them to the structural elements of the building. Our offerings include tension caps to address tension or uplift requirements. Additionally, we provide compression caps with a gravity slip-on design. We offer the flexibility of custom plate sizes, rebar attachments, and bolted versions to cater to specific project needs. These options ensure that the helical piles are properly and securely connected, providing a reliable foundation solution for the construction project.

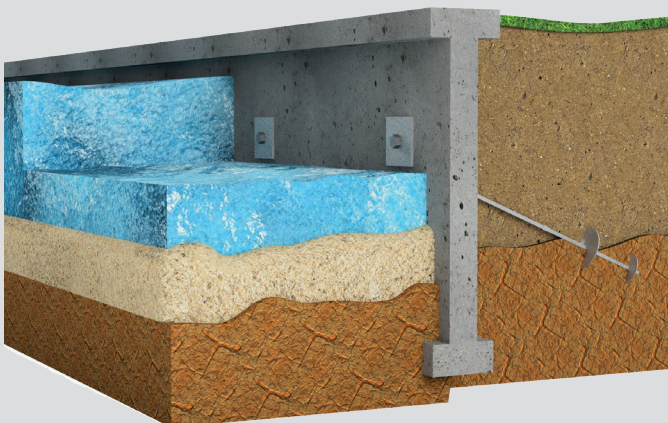


## TIEBACK ANCHORS

Tieback Anchors are specialized systems designed to strengthen and stabilize both permanent and temporary structures, countering lateral forces from soil and water. They are utilized alongside earth retaining systems such as sheet piles and soldier piles to enhance lateral resistance beyond what a standalone wall can achieve. These anchors offer the advantage of immediate loading, eliminating the need for grout curing time. With a typical installation rate of 30-40 per day for installation and/or testing, they eliminate the need for drilling holes, thus minimizing labor and equipment costs. This allows for maximum cost savings while still achieving high load capacities for the anchors.

### APPLICATIONS:

- Building site preparation
- Site development
- Retaining walls
- Roadways
- Levees / Dams
- Earth Retention
- Revetments
- Sea walls / Bulk heads



Helical Tieback Anchors are installed quickly and in any weather condition. The anchors are inserted into the supported soil using hydraulic rotary drilling equipment. The capacity is determined by measuring the installation torque and relating it to the soil strength's holding capacity ratio once the minimum length is reached. After achieving the desired capacity, the helical tiebacks are tensioned and tested, eliminating the need for curing time or cleanup of excavated materials. This results in significant time and cost savings for the project.



# MAGNACORE HOLLOW BAR

The self-Drilling Anchor (SDA) system offered by Intech Anchoring is a hollow bar solution designed for efficient drilling and grouting. This system consists of fully threaded steel bar sections, couplers, nuts, and drill bits. The hollow center of the bars allows for simultaneous drilling and grouting operations.

The hollow bar functions as a drill rod, with a sacrificial bit threaded onto the end. This sacrificial bit remains in place after drilling is complete. The continuous threading along the length of the bar enables it to be cut and coupled together at any desired location.

During the drilling process, cement grout is injected into the hollow core of the bar using a high-pressure grout plant connected to the drill rig. The grout is forced through grout ports in the sacrificial bit, serving two purposes. Firstly, it acts as a stabilizer, enhancing the stability of the surrounding soil. Secondly, it efficiently flushes out the spoils from the borehole, preventing collapse by providing a higher relative density compared to the loose material.

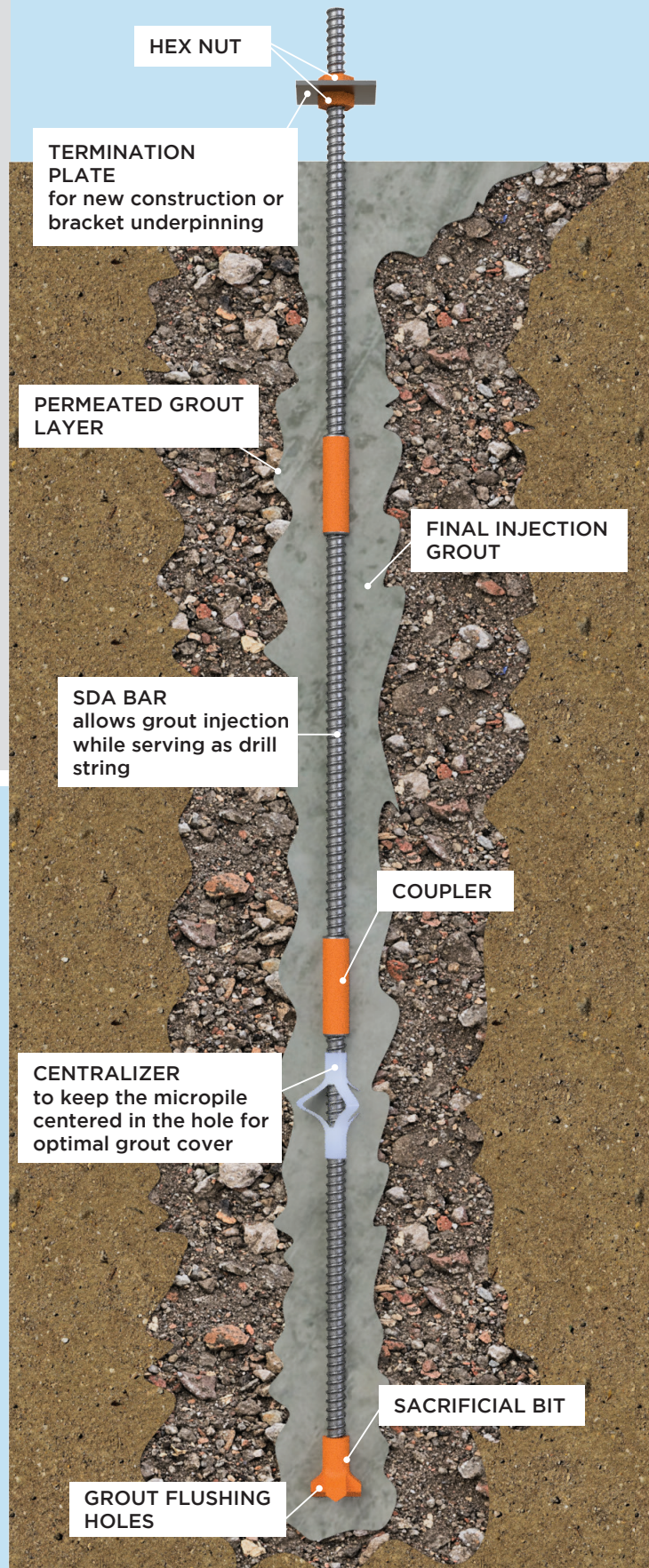
Magnacore Self-Drilling Anchor system is particularly effective in loose or collapsible soils. Its all-in-one installation process saves both time and money, making it an ideal solution for construction projects. By combining drilling and grouting into a single operation, Magnacore SDA system streamlines the installation process and ensures efficient and reliable results.

## KEY FEATURES:

- Anchor bar simultaneously serves as a drill rod
- Eliminates the need for borehole drilling
- Concurrent drilling and grouting speeds installation
- Can be installed in confined spaces
- Effective in various ground conditions with the use of soil-specific drill bits
- Can be used as a soil nail, tieback anchors, or a micropile
- Hot dipped galvanized material available for corrosive protection

## APPLICATIONS:

- Slope, embankment, and rock stabilization
- Shoring and excavations
- Foundation underpinning
- Sea walls / Bulkhead
- Soil retention





## SOIL NAILS

Hollow bars serve as excellent soil nails for stabilizing slopes and retaining walls. The hollow core allows for grout injection, ensuring optimal bonding between the bar and the soil. This application provides increased stability, preventing soil erosion and potential slope failure.



## TIEBACK ANCHORS

Utilizing hollow bars as tieback anchors offers effective reinforcement for permanent and temporary structures. The bars are drilled into the ground at an angle away from the structure, providing resistance against lateral loads. The grout-filled hollow core enhances the bond between the bar and the soil, maximizing load transfer. This application is commonly used in retaining walls, earth retention systems, and other projects requiring lateral stability.

## MICROPILES

Hollow bars can be employed as micropiles, offering a reliable deep foundation solution for various construction projects. The bars are drilled into the ground and grouted simultaneously, ensuring load transfer to the surrounding soil. Micropiles constructed with hollow bars are known for their high load-bearing capacity and ability to withstand both axial and lateral forces. This application is particularly beneficial in areas with challenging soil conditions or limited access.



### We're here to help!

Take advantage of our professional engineers and expert team who offer valuable insights, recommendations, and technical expertise at every stage. Contact us today!



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