MAGNUM
PIERING
designed to support

Residential Foundation Products

800-822-PIER
www.magnumpiering.com

Designed to Support

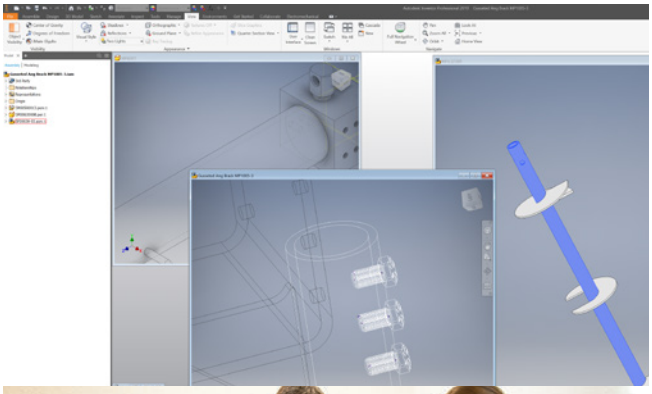
History
Founded in 1981, Magnum Piering was one of the very first foundation repair system manufacturers in the United States. The Magnum Hydraulic Push Piering System was the company's flagship product line and we have been building on this success for over 35 years. Our story continued to reach new heights in 2017 with the opening of our new manufacturing facility located in Cincinnati, Ohio. This equips us to be at the forefront of cutting-edge foundation product development.

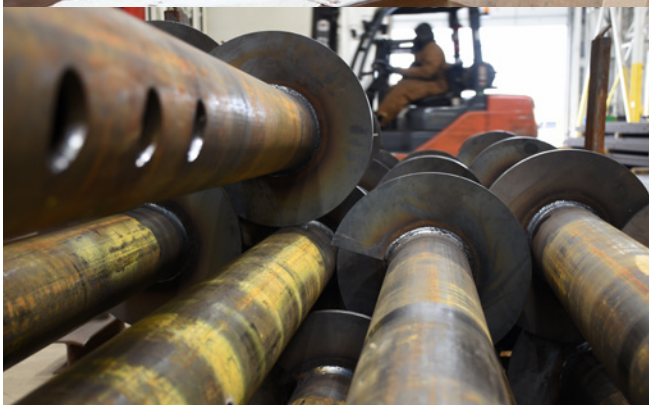
Support
We know that your success is greatly influenced by the support we provide. We are always available to assist with product designs, technical support, engineering services and sales support. Our Installer Certification process consists of a one day classroom training session and one day on-site training with our field support engineer on one of your project locations.

Response
Providing the best, most accessible and responsive team of engineers in the industry is what it takes to be an industry leader. Our entire support team will be available to you whenever it is needed.

Engineering Team
Magnum Piering employs a team of structural and geotechnical engineers that are ready and willing to help with project submittals and design-build support for foundation, shoring, underpinning, repair and earth retention projects. Magnum Piering's engineers are licensed in 37 states and 1 Canadian province. We also frequently provide support and advice to other engineers and architects working throughout the world.

Director of Engineering
Magnum employs the best in the business when it comes to deep foundations. Dr. Howard Perko PE has been studying deep foundation solutions for over 25 years. He has authored the ONLY textbook currently available on helical pile design and installation. As a co-author of the ICC-ES AC358, the originating author to IBC2009 regarding helical piles, a previous chairman for helical piles within DFI, and current board of trustee member of the DFI, Howard is an asset to all of our installers.





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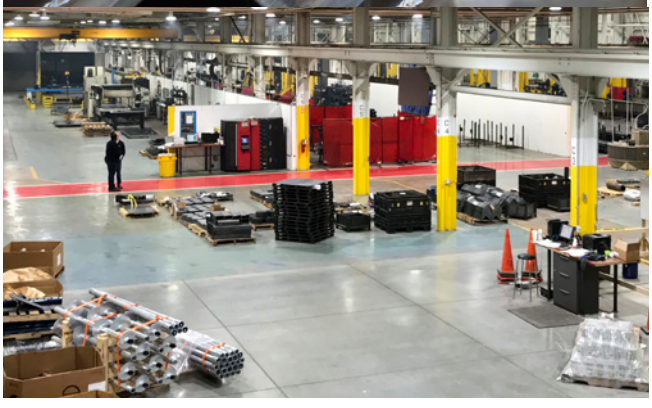


Quality and Trust

ICC-ES Proven

The International Code Council develops the model codes and standards used in the design, build and compliance process. This is important to pile installers because it ensures through independent testing that the load capacities the manufacturers claim are true. Multiple Magnum products are supported by an ICC report, with more coming in the future. All of our products are built to meet or exceed ICC-ES AC358 standards.

ISO 9001:2015

We have established and maintained the uniform quality management system standards set forth by the International Organization for Standardization (ISO). This allows us to ensure the consistent high quality products our installer's have come to expect.

On Time

We take pride in being capable to ship our most common products within 24-48 hours due to our on-site inventory program. Products not in stock or large orders can be produced quickly in our our state-of-the-art 100,000 square foot manufacturing facility.

Better Steel

All of our 3.00" diameter helical pile and push pier products and many of our other products are manufactured from ASTM A513 steel tubing. This premium steel tubing has higher carbon and alloy content, which gives the steel greater strength. A513 tube is also manufactured with much higher tolerances than ordinary pipe to provide a tighter fit. The entire Magnum product line is manufactured using only new US steel that qualifies for all "Buy American" projects.

Trust

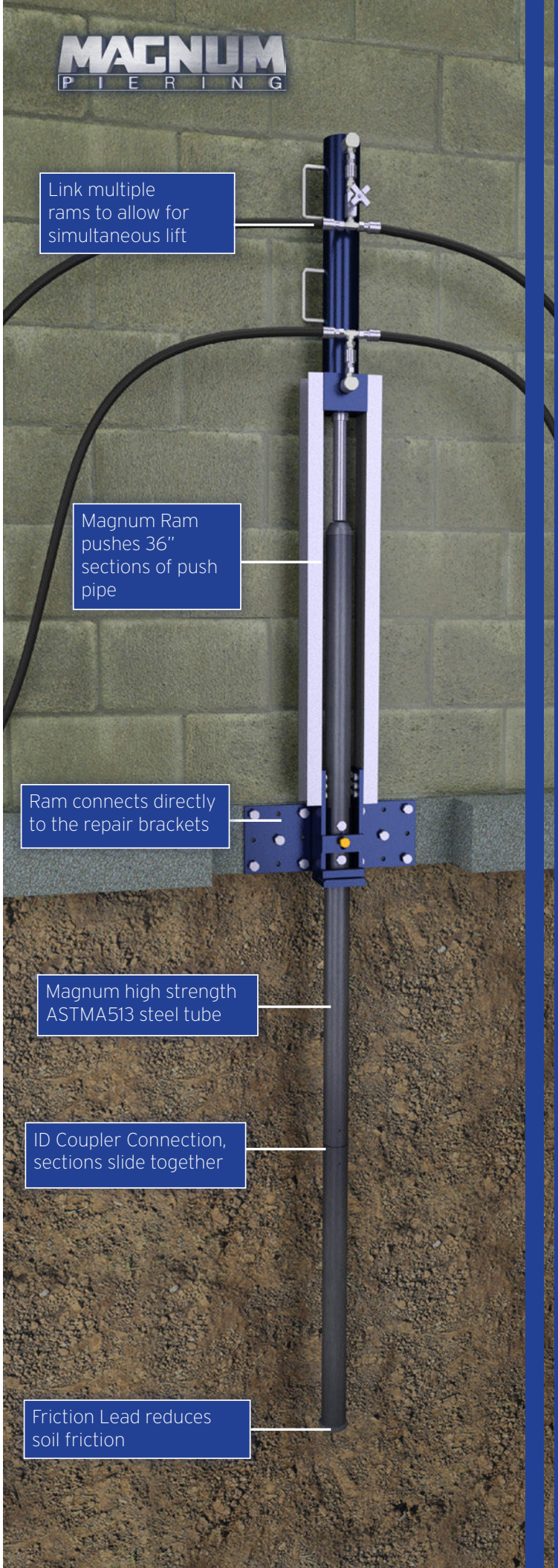
Magnum warrants its products, parts, and components to be free from defects in materials for a period of 10 years from the date of sale. We warrant our workmanship as well, so you can trust all of Magnum Piering's products to be the best possible. See our full warranty statement at www.magnumpiering.com.

Why Magnum Push Piers

Magnum has worked with our engineers and installers from around the country to continuously improve our system in order to provide the fastest and highest quality push pier system available. When you utilize our plate bracket during your install, it completely eliminates digging under the footer. Our entire line of foundation brackets attach to the faced footer with expansion anchors. The Magnum ram simply fastens to the bracket by use of a safety bolt. Once the ram is safely secured to the bracket, you can begin driving one of our push pier sections. The ID coupler makes for quick install as the tubing slides together and transfers the weight from one section to the next evenly. After reaching and testing a load bearing stratum, the structure can be simultaneously lifted with the same rams the piers were driven with. When the lift or stabilization is complete, the Magnum Lock Off System makes for an easy completion of the pier. With the ram still attached, the installer drills directly into the pier through predrilled holes in the collar. After fastening 1 to 3 bolts to ensure no movement of the pier, remove the rams and your job is complete. Cut install times by up to half using Magnum Push Pier Systems.

How it works:

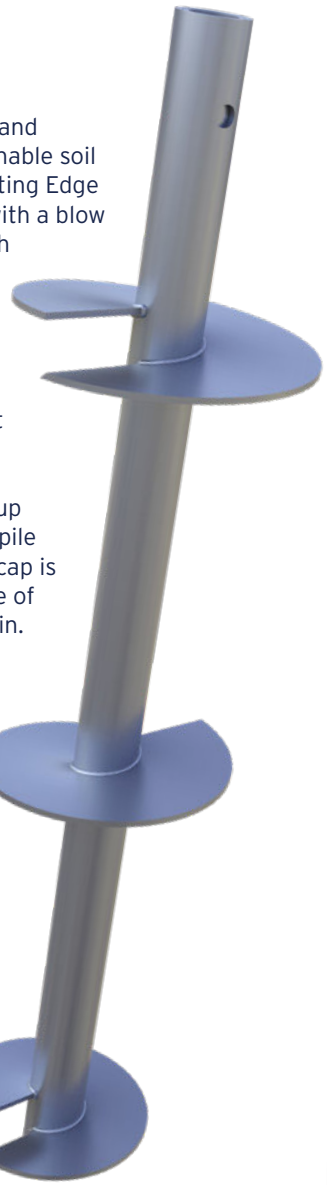
1. Expose and face footer even with the load bearing wall.
2. Fasten the bracket to the footer using the proper amount of wedge anchors for the load.
3. Secure the ram to the bracket with a safety bolt.
4. Drive the 36" pier sections connecting them with the ID coupler system
5. Once load bearing stratum is reached and has been held, use the same ram to lift the structure.
6. After all piers are driven and tested, the same rams can be used to lift the structure.
7. Drill pier and lock in place using the proper amount of bolts for the load.



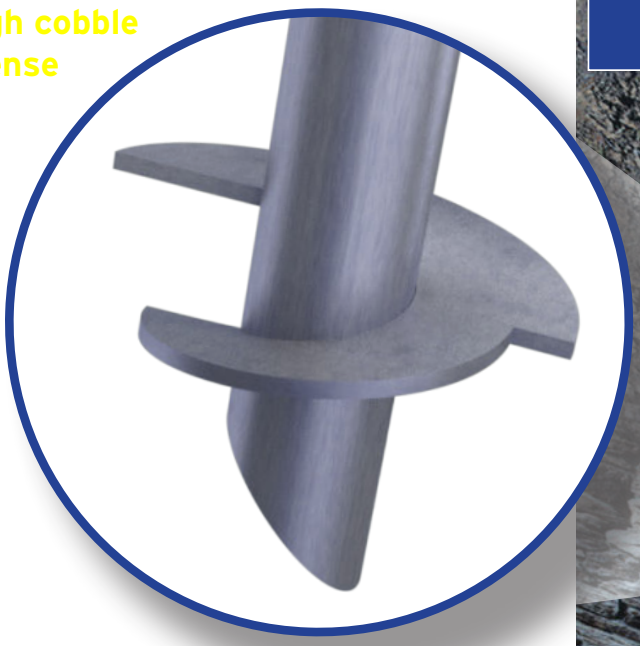
Helical Piles

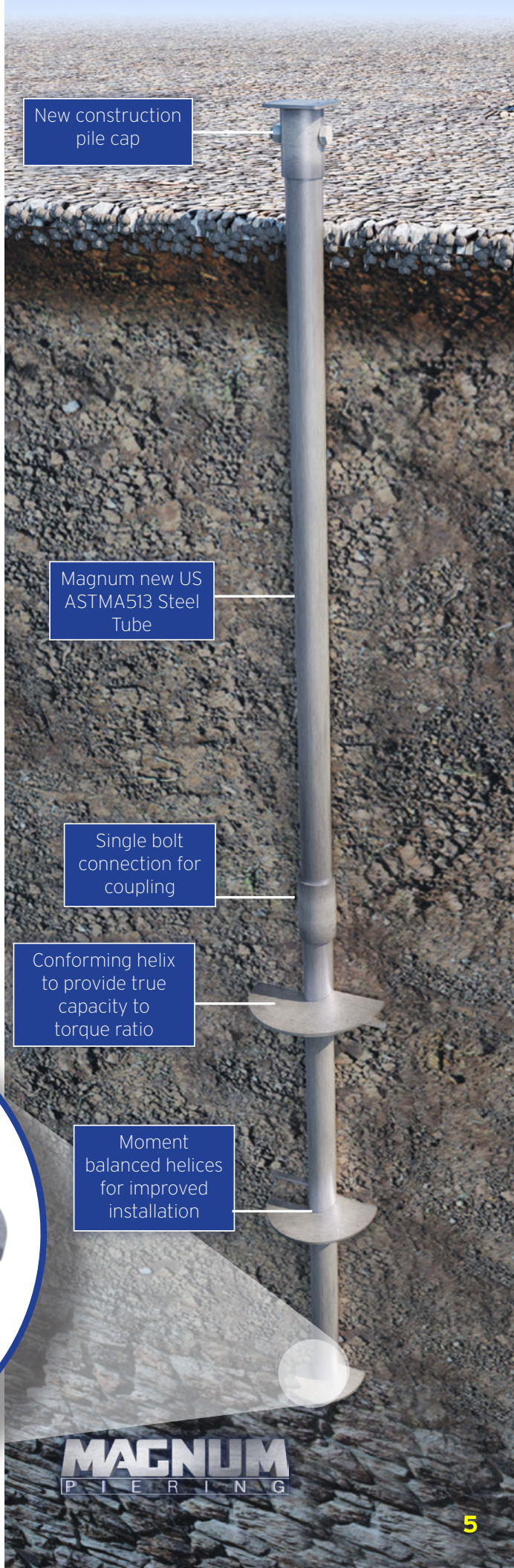
Magnum Helical Piles

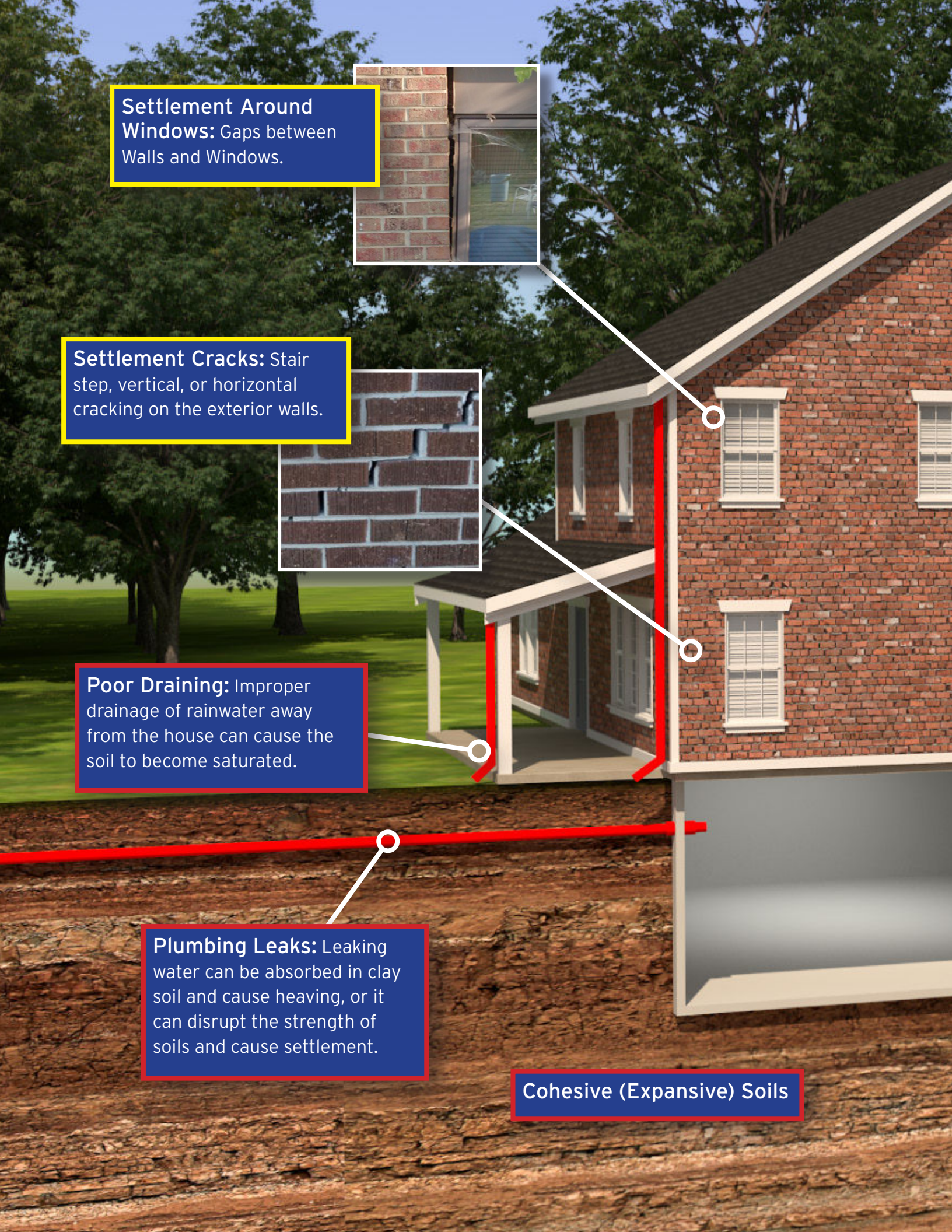
We design helical piles for a rapid and precise install in the most questionable soil conditions. Our patented Dual Cutting Edge Helix helps cut through material with a blow count of N < 100. Combine this with our moment balanced helices and you will achieve an extremely accurate install with minimal to no walking or wobbling of the pile during installation. Our 3 inch product line offers 4 different solutions depending on your load capacity and all are equipped with a single bolt connection to speed up the installation process. Once the pile has reached termination, the pile cap is fixed to the pile and the next stage of construction can immediately begin.



Patented Dual Cutting Edge (or DCE) cuts through cobble and dense soils






Settlement Around Windows: Gaps between Walls and Windows.
Settlement Cracks: Stair step, vertical, or horizontal cracking on the exterior walls.
Poor Draining: Improper drainage of rainwater away from the house can cause the soil to become saturated.
Plumbing Leaks: Leaking water can be absorbed in clay soil and cause heaving, or it can disrupt the strength of soils and cause settlement.
Cohesive (Expansive) Soils

Interior Doors and Windows:
Corners of re-entrant doors and windows develop cracks in the drywall

Exterior Door Framing:
Increasing gaps between the door and the frame can cause the door to not latch properly.

Evaporation: Hot, dry, windy conditions cause evaporation from the soil weakening their capacities

Tree Roots: As trees grow their roots pull more moisture out of the soil changing the soil conditions around the home.

Basement Wall Failure: Inward bowing caused by hydrostatic pressure.

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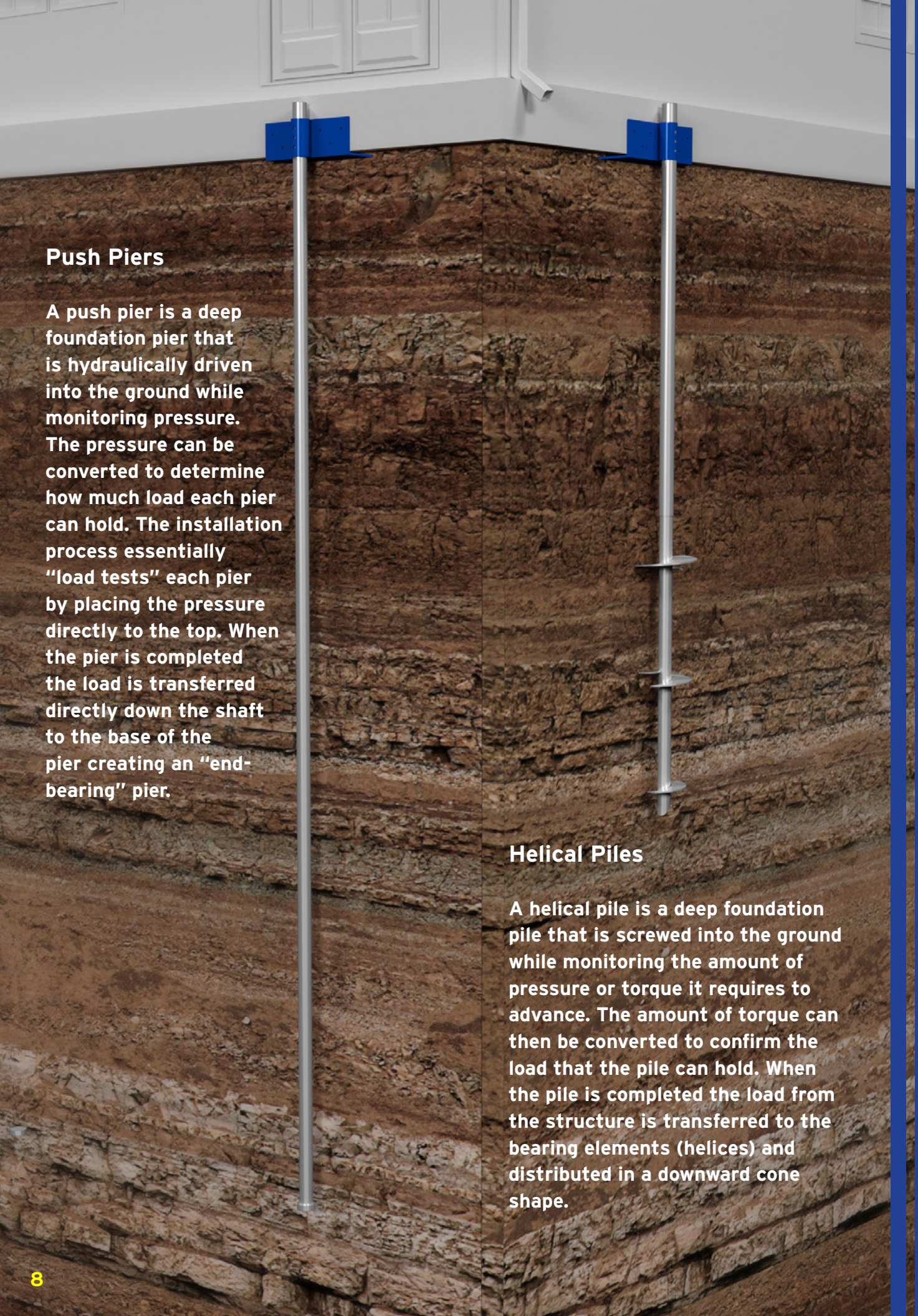


Push Piers

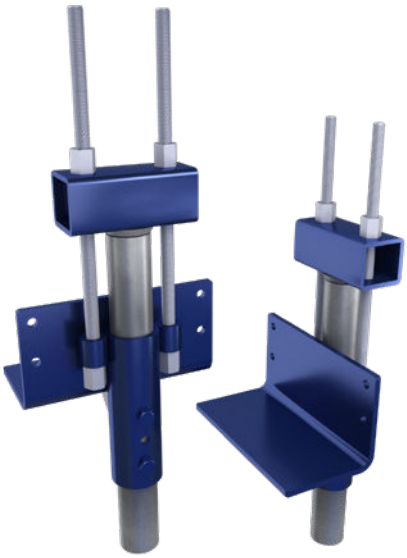
A push pier is a deep foundation pier that is hydraulically driven into the ground while monitoring pressure. The pressure can be converted to determine how much load each pier can hold. The installation process essentially "load tests" each pier by placing the pressure directly to the top. When the pier is completed the load is transferred directly down the shaft to the base of the pier creating an "end-bearing" pier.

Helical Piles

A helical pile is a deep foundation pile that is screwed into the ground while monitoring the amount of pressure or torque it requires to advance. The amount of torque can then be converted to confirm the load that the pile can hold. When the pile is completed the load from the structure is transferred to the bearing elements (helices) and distributed in a downward cone shape.

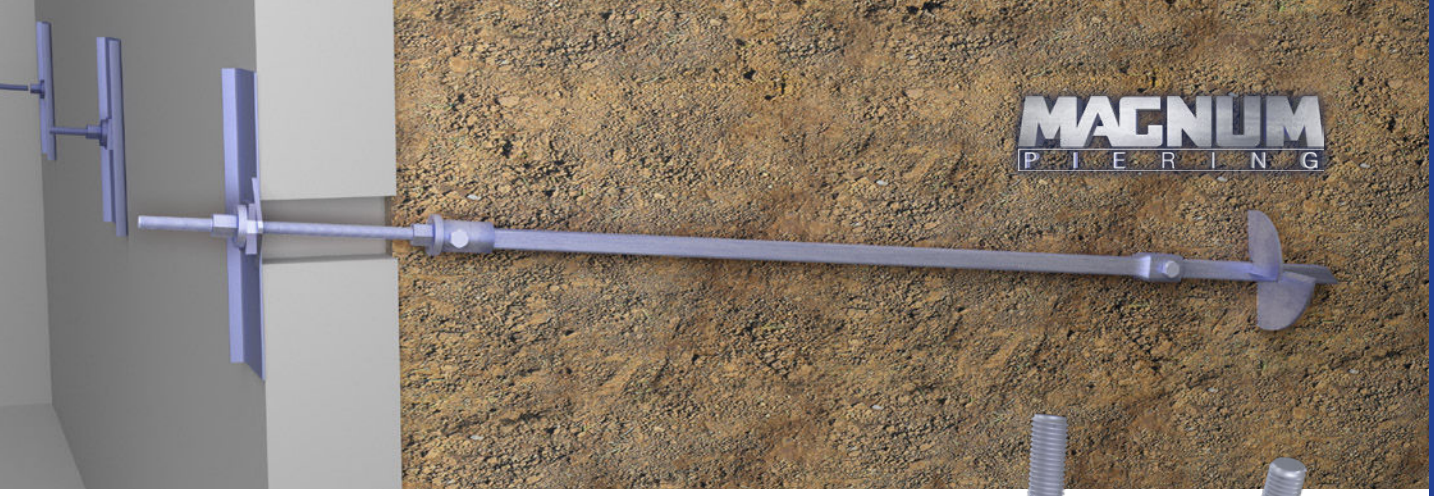
Underpinning

Magnum helical piles are a great option for underpinning if you are dealing with a lightweight structure such as a screened-in-porch or when push piers are being driven deeper than expected. After the footer has been exposed and faced you simply screw the pile into the soil until you achieve the required torque to support the load. Slide the bracket down the tube and fasten to the footer using the proper anchors. You can now use your Magnum Ram to lift the structure and lock it off simply with the Magnum Lock Off System. If you are not equipped with a Magnum Ram you can utilize the lifting bracket with the helical piles to repair the foundation.



Lifting Bracket

- Gusseted Angle Bracket with lifting assembly attached
- Lock off pile using the T-Bar or Magnum Lock Off System for convenience

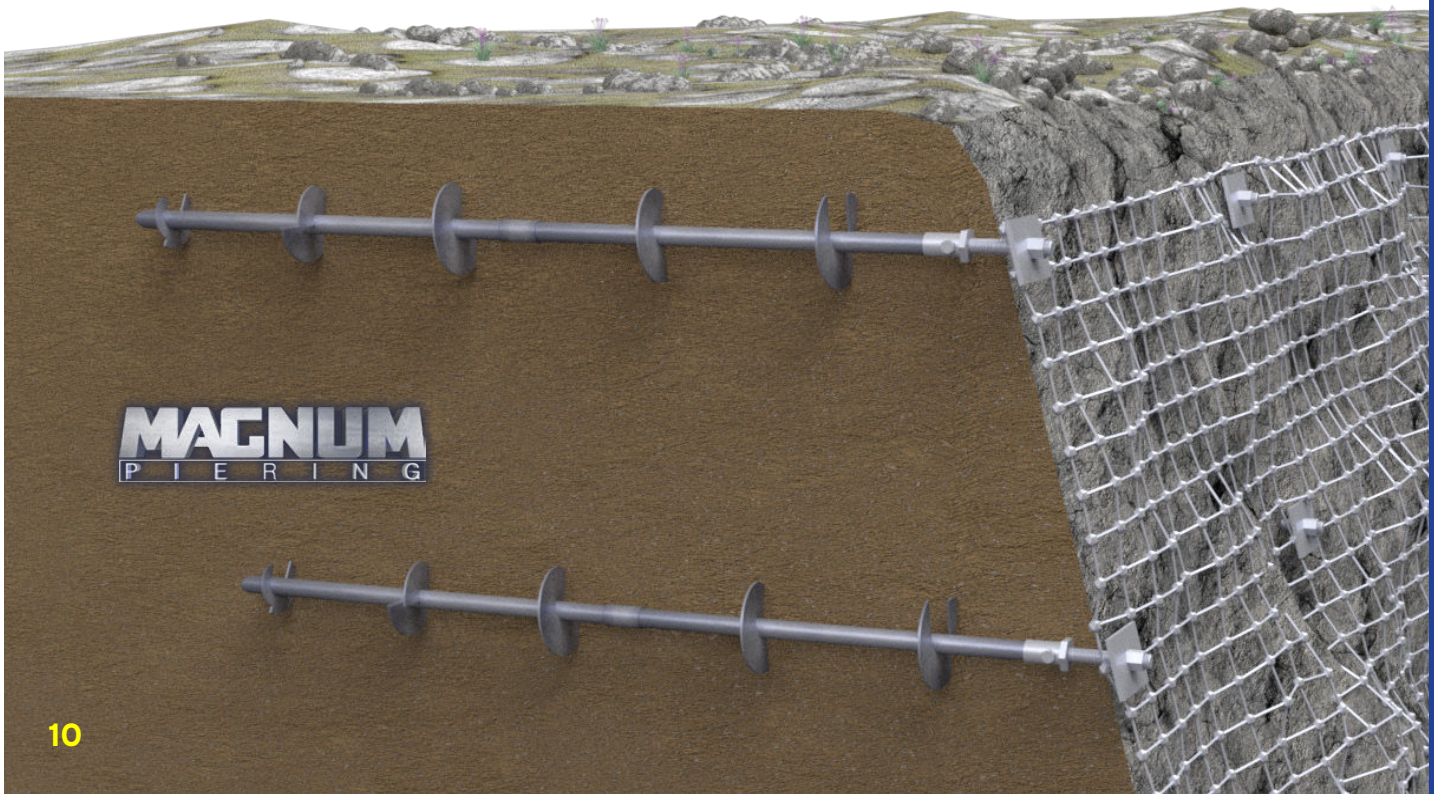


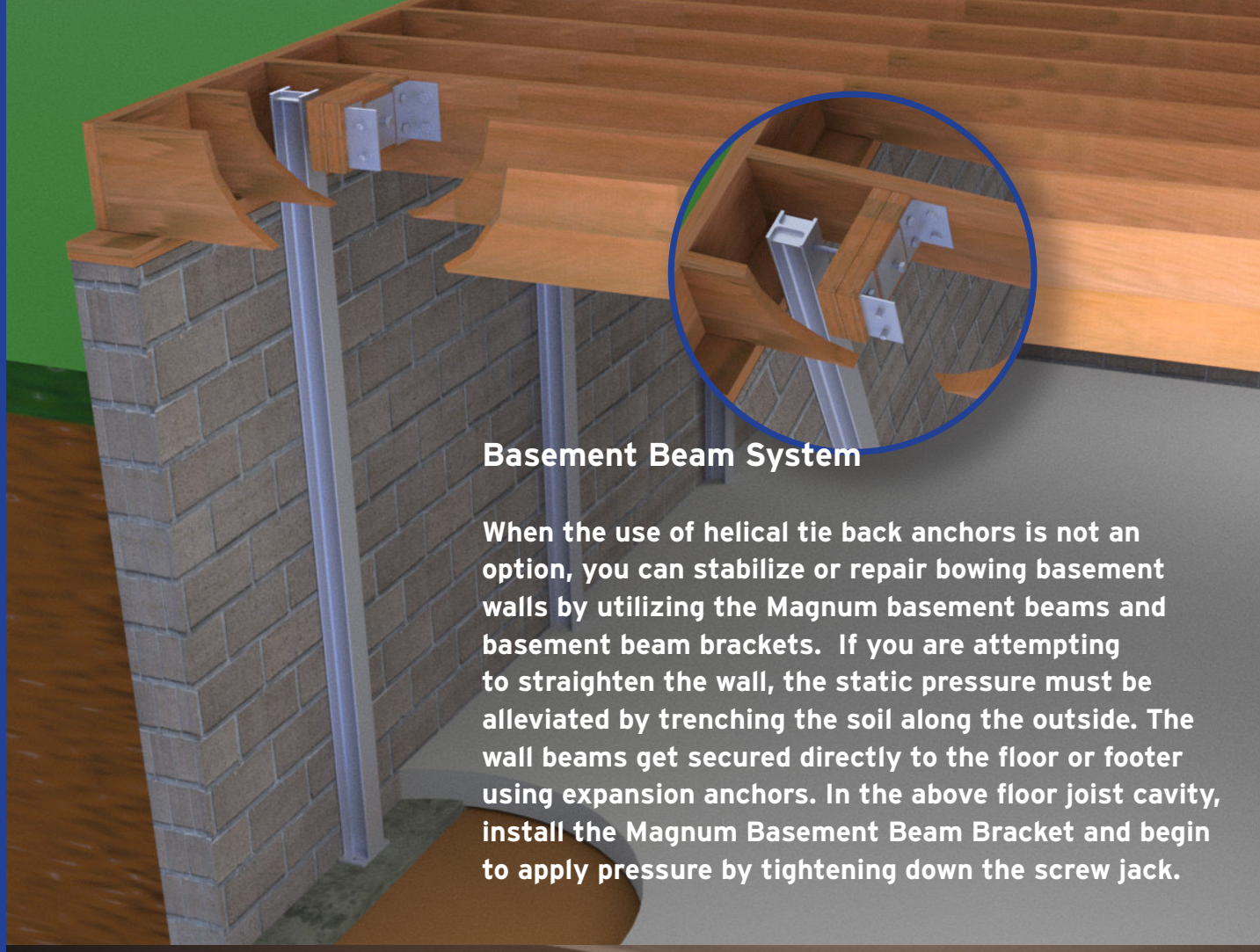
Tie Back Anchors

Tie-back anchors provide a solution to bowing basement walls and failing retaining walls. Tie-back caps combined with Magnum helical piers transfer the tension of the load back into the soil preventing walls from failing. The Magnum Support Team will ensure that you have the correct combination of helical pile and tie-back cap for all of your jobs.

Soil Nail

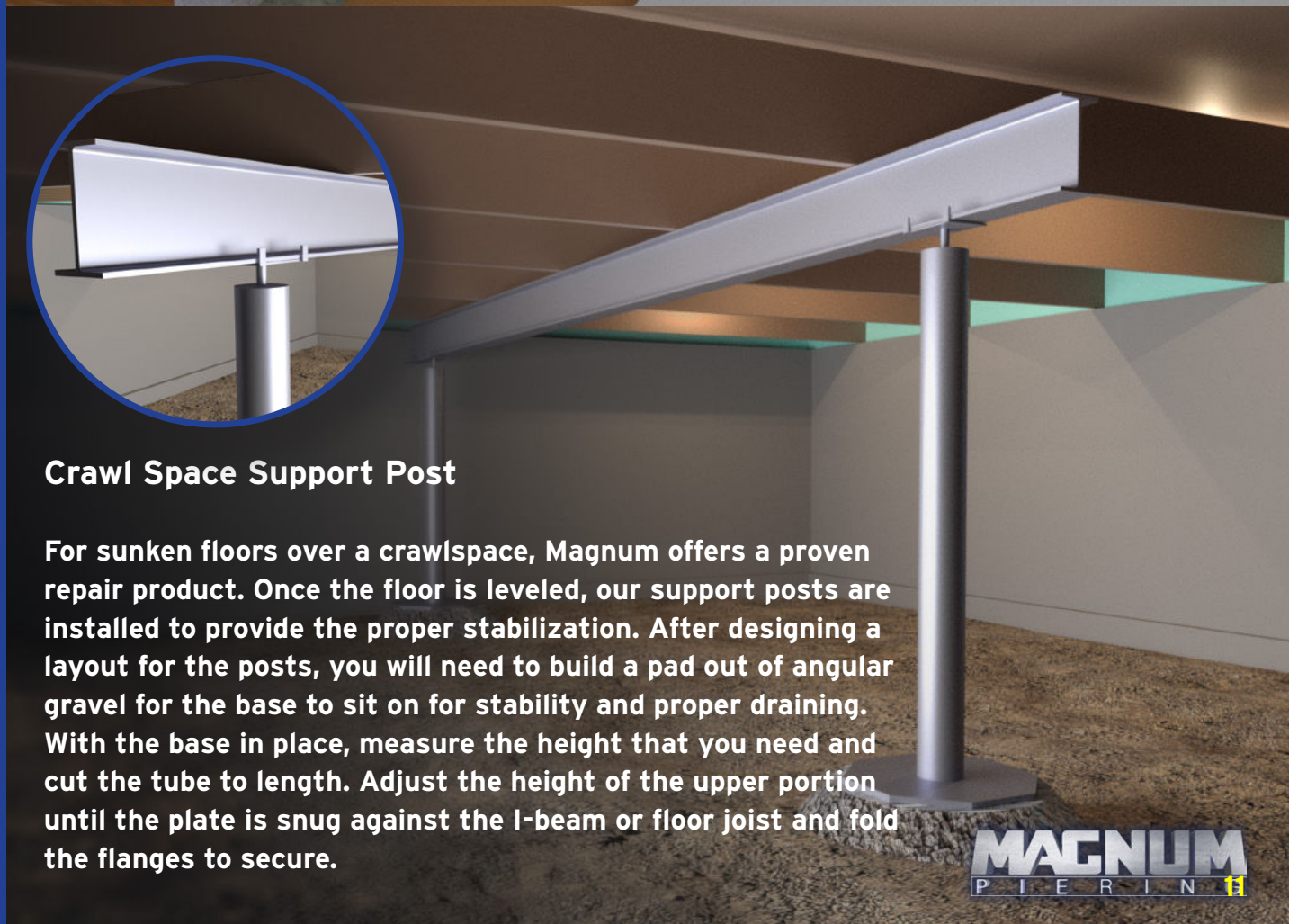
Soil nailing is the process of using helical shafts to reinforce slopes or blocks of soil for earth retention and stabilization. Helical bearing plates are spaced along the entire length of the shaft for continuous bonding with the soil. Soil nails permit the use of a relatively thin shotcrete or steel mesh (as seen below) to prevent raveling between nails. With a fixed length, it also allows for use of an integrated thread bar adapter. Installation is very quick with no waiting for grout to set and there are no issues with caving soils and/or ground water.





Basement Beam System

When the use of helical tie back anchors is not an option, you can stabilize or repair bowing basement walls by utilizing the Magnum basement beams and basement beam brackets. If you are attempting to straighten the wall, the static pressure must be alleviated by trenching the soil along the outside. The wall beams get secured directly to the floor or footer using expansion anchors. In the above floor joist cavity, install the Magnum Basement Beam Bracket and begin to apply pressure by tightening down the screw jack.



Crawl Space Support Post

For sunken floors over a crawlspace, Magnum offers a proven repair product. Once the floor is leveled, our support posts are installed to provide the proper stabilization. After designing a layout for the posts, you will need to build a pad out of angular gravel for the base to sit on for stability and proper draining. With the base in place, measure the height that you need and cut the tube to length. Adjust the height of the upper portion until the plate is snug against the I-beam or floor joist and fold the flanges to secure.

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