Why use Champion?

Champion has been in business since 2004 and we have never had a failure. Our staff and products are state of the art and we always stay trained on the latest technologies. Here are some other great qualities:

1. **Owner:** You will always have direct contact with the Owner of Champion and you will have her cell phone. You will never be shuffled around from sales person to sales person.

2. **Training:** All of Champions personnel receive state of the art training on installation and trouble shooting. Since every house is built different, your home may have special circumstances, which require extra attention.

3. **Personnel:** All of our personnel are drug tested and background checked before they step foot on your property. We never sub-contract, only professionals will be on your project.

4. **Project Manager:** Your home will be assigned an experienced project manager who will know every detail about your property and the repair.

5. **Paperwork:** We handle all of your necessary paperwork for the engineers, insurance company, mortgage company, and permitting.

6. **Proposal:** Our proposal is our contract so there are no surprises. You can read every term and condition as well as our warranty!

7. **Engineers:** Champion takes great care and works closely with your engineer in the planning of your repair. We will never ask you to move your A/C, pool pump, or water softener. We always work around these items.

8. **Security:** All of Champion Foundation Repair's Piers include an exclusive Limited Lifetime Warranty for its material and workmanship. Some companies choose one or the other. Your repair is a packaged deal! These piers are easy to install and easy to maintain if needed in the future.

9. **Landscaping:** Champion Foundation Repair takes many precautions to protect your home, landscaping and vegetation while the installation takes place. All your landscaping, sod, and mulch or rocks will be replaced to make your home look as good as it did when we arrived or better.

10. **Better Business Bureau A+ rating!**
Chemical Grouting is a newer sinkhole repair method which injects polyurethane foam in low viscosity liquid form at low pressure into cohesionless soils. Chemical Grouting is usually used for the purpose of consolidating the loose and sandy soils within the first fifteen feet, where compaction grouting cannot be used.

This procedure can often also be used around pool decks, walkways, underneath foundation slabs, and re-leveling of foundation slabs. The entire Chemical Grouting process typically takes anywhere between 1 to 2 days to complete.

How is Chemical Grouting used on my home?

1. At each and every injection point, a 5/8" injection pipe is advanced to the depth recommended by the project engineer.

2. The voids are quickly filled with the chemical grout and the soils which surround and support the structure are densified. The foundation is gently lifted and supported.

3. The Chemical Grouting solution expands over time up to twenty times (20x) its own volume and quickly hardens combining with the loose soils to create a solid stone-like mass.

4. Installation is complete once the proper amount of polyurethane is injected or desired lift has been gained.
What is Compaction Grouting and how is it performed?

For over 50 years Compaction Grouting has been widely utilized to correct soil settlement problems. Compaction Grouting is a process of injecting a low mobility cement grout mixture under high pressure, through a number of angled and vertical injection points around the property. The objective is to fill the voids beneath the structure and increase the density of the soil layers which supports the house thus remediating the sinkhole activity.

The first step is to install steel grout casings around the home using a drill rig. The casing is installed to the maximum treatment depth using the rotary wash method, which allows the casing to be snugly seated a few feet into limestone. Once all the injection pipes are installed the grout can be pumped.

As the grout is pumped through the steel casing, the casing is slowly extracted in controlled incremental lifts. In the first few treatment zones the compaction grout spreads, sealing the limestone surface. This creates a blanket over the limestone which will keep the upper soils from further raveling through the limestone cracks. Then as higher pressures are reached, the casing is lifted and pumping resumes again at the new levels. At each level the grout compacts the soils around it and the soil density is increased. This continues around each point until the grout is fully installed at each point.

While the entire install is happening, Champion’s Crew will monitor continuously for movement by using pressure gauges located between the concrete pump and the injection pipe, transits, and laser levels. This allows the installation crew and the engineer to determine the effectiveness and extent of the compaction work.
Why should I use Champion for my Compaction Grouting?

- Our track-mounted drill rig is capable of getting through 36" wide doorways and confined spaces, minimizing the removal of screened doors and fence gates.
- Champion Foundation Repair takes many precautions to protect your home, landscaping and vegetation while the installation takes place.
- Champion Foundation Repair only purchases grout material from certified, independent grout suppliers such as Cemex and B.E.T.E.R Mix. We do this to insure the highest quality product for your project as well as independent verification of quality, times and amounts.
- Our state of the art training process ensures you have the highest qualified professionals in the business.
- All of our personnel are drug tested and background checked before they step foot on your property.
- We will not subcontract your project out.
- Our staff will walk through every part of your project.
- We train all of our personnel to respect your property.
- All of our drilling equipment has rubber treads or tires and we use mats to reduce the impact of our equipment to your lawn and landscaping.
- We always use plastic sheeting to cover windows and walls during drilling and grouting phases of your project. This minimizes any mess that is created. We also have crew members clean as they go.
- We protect your pool from grout intrusion.
- During the grouting operations, the majority of the time the structure may remain occupied and in-service.
What are Helical Piers and how are they installed?

Since the early 1800’s Helical Piers have been used for the stabilization of structures. The original Helical Pier was a wooden shaft with an iron helix for use in lighthouse foundations. Technology has come a long way since then and today a Helical Pier is a steel pipe piling with multiple twisted helix plates, 8” to 16” inches in diameter, welded to the lead section of the piling.

Helical Piers are commonly used to stabilize the perimeter of buildings by transferring the weight of the structure off of the weaker soils and onto the piers. Helical Piers are an excellent choice in repairing damage caused by organic soils, clays, poor compaction, improper footer embedment, erosion or sinkhole activity. One of the key benefits of helical piers, is they can permanently lift a sunken foundation back to its original level. Champion has successfully lifted buildings up to 9 inches.

Installing helical piers starts with hand digging holes at each point to allow access to the footer of the structure’s foundation wall. The next step is to set Champion’s ULTRA bracket in place with it being squared to the bottom of the foundation. Then the hydraulic torque drive assembly is connected to the helical lead sections and advanced deeper to load bearing strata with up to 8,500Ft-lbs of torque pressure. Champion’s lifting assembly is then connected to the top of the helical pier and the structure lifted back into its original state. To make sure the pier is seated securely and the weight of the structure fully transferred, the bracket is load tested for 15 minutes. This is continued at each point until the property repaired.
Key benefits of using Champion's Helical Piers:

- **Strength**: Champion Foundation Repair uses the strongest system in the industry. The Fasteel Titan Helical Pier system can achieve forces of over 8,500ft-lbs. Each bracket is tested prior to use to make sure it can handle 120,000lbs. All helical pier's installed are driven to at least double of the required service load.

- **Made in the USA**: The Fasteel line is manufactured in St Louis MO, not imported from other countries, ensuring a solid steel every time.

- **Independence**: Your home is not used as a counterweight! Using a Mini-Excavator to install the Helical Piers means the piers are fully driven to their final depth before they even touch your house, causing no more damage to your home!

- **Instant Confirmation**: We know within 15 minutes whether or not the pier is seated in good stable material or in a temporary resistance zone, which may lose strength later on. Meaning your house is repaired correctly the first time.

- **Training**: All of Champions personnel receive state of the art training on installation and trouble shooting. Since every house is built different, your home may have special circumstances, which require extra attention. We never sub-contract, only professionals will be on your project.

- **Security**: All of Champion Foundation Repair's helical piers includes an exclusive limited lifetime warranty for its material and workmanship. Some companies choose one or the other, your repair is a package deal. These piers are easy to install and easy to maintain if needed in the future.
What are Steel Piers and how do they differ from helical piers?

Steel Piers refers to a steel pipe piling, which is hydraulically advanced to limestone and are used to stabilize the perimeter of a structure which may have sustained damage. The steel pier’s main function is the support and stabilization of the structure’s load by transferring the weight of the structure off of the weaker soils and onto the steel piers; and obtaining lift where needed. Steel piers can be a great method of repair if you remember 3 keys factors: they must be installed correctly, limestone must be attainable, and the right materials must be used.

Install: One of the most important ways steel piers differ from Helical piers is how they are installed. When installing Steel Piers, they must be advanced to limestone in order to repair the structure. To advance the pier, the home is used as a counter weight to drive the piers down. With each push down of the pier, you house may move slightly. Unlike Helical Piers, which do not move your house at all and use a separate mini excavator to reach limestone, steel piers may cause more cracking in trying to reach the necessary depths. However, cracks will most likely be slight and cosmetic in nature.

Depth: Your home must be heavy enough to advance the piers as deep as they need to go to reach limestone. If this does not happen the pier will stop short of limestone and the structure will not be repaired correctly. In time the skin friction of the soils on the piers will loosen the grip and the pier will be compromised, causing new damage to occur. If your limestone is deep a Helical Pier may be the better repair type for you.

Materials: Another important consideration in choosing a Steel Pier is the type of steel which is being used. Since steel piers are relatively easy to make, many companies produce their own in their “backyard” or buy inferior materials from places like China. This means the strength of the steel could be equal to fence post material. Always look for the schedule of the steel, the higher the number the schedule is, the stronger the steel. Champion’s schedule 80 steel is the strongest in the business and can hold up to 120,000 lbs per pier!
Why use Champion to install my Steel Piers?

- **Strength** - The Fasteel Titan HDP steel pier system used by Champion Foundation Repair is one of the strongest underpin systems used in the industry today. As the schedule 80 pier is driven into the ground it can achieve forces of over 109,000 pounds and each bracket is tested prior to use to make sure it can handle 120,000 lbs with no damage.

- **Portability** - There is no large equipment needed to install steel piers on your property. Each hydraulic driving assembly is moved by wheelbarrow to the installation point from our truck in the street. The loudest noise you will hear on your property is like that of a lawnmower's engine outside.

- **Instant Confirmation** - With our lifting procedures, we know within 15 minutes whether or not the pier is seated in good stable material or in a temporary resistance zone which may lose strength later on.

- **Training** - All of Champions personnel receive state of the art training on installation and trouble shooting. Since every house is built different, your home may have special circumstances, which require extra attention. We never sub-contract, only professionals will be on your project.

- **Made in the USA** - The Fasteel line is manufactured in St Louis MO, not imported from other countries, ensuring a solid steel every time.

- **Security** - All of Champion Foundation Repair's helical piers includes an exclusive limited lifetime warranty for its material and workmanship. Some companies choose one or the other, your repair is a package deal. These piers are easy to install and easy to maintain if needed in the future.
Grout Injected Piers are a hybrid sinkhole repair method which combines the support strength of Steel Piers and the sinkhole filling capabilities of Compaction Grouting. In essence, the sinkhole activity is remediated by the action of the grout targeting and sealing the top of the limestone layer while the installed steel piers provide direct structural support.

The process begins much the same as regular steel piers with the exception of the first few pipe sections of the steel pier are not solid; they are perforated with 1” holes. The installation points are hand excavated and the footer of your structure chipped back flush to the foundation wall. Champion’s ULTRA bracket is set in place and squared to the bottom of the foundation. Champion’s dual hydraulic drive assembly is connected to the ULTRA bracket and lead pipe section and subsequent pipe sections are hydraulically driven deeper to the limestone layers. Driving is terminated when the pier stops it’s advance downward and the structure starts to lift upward. Champion’s lifting assembly is then connected to the top of the steel pier and the structure lifted back into its original state.

Grout is then pumped through the pier down to the limestone layer to seal the top of the rock to stop the raveling and solidify the base of the pier in concrete. Each pier is pumped around the property and then the holes are closed up.
An Internal Slab Support is a Helical Pier which is designed to re-level and support your interior floor slab. They are typically installed every five feet on center throughout the areas which need lift and support. Floor slabs can be leveled and stabilized without the mess and inconvenience of replacing the entire slab.

Internal Slab Supports for foundation and sinkhole repair are hydraulically torque driven through a cored small hole in your foundation. This allows the area of your homes slab, which has been damaged by settlement, sinkhole, or poor soil conditions to be slowly and gently raised back to level. This process is more permanent than pressure or chemical grouting and more cost effective.

Internal Slab Supports are designed to be driven into deeper soils beneath your home, bypassing soils which have shrunk or migrated, so that, your interior slab can be supported by strong, competent load bearing strata. Slab piers also provide an opportunity to lift your concrete slab back to its original position, often closing cracks and eliminating tripping hazards.

First, the Geotechnical Engineer’s repair design is reviewed and installation points are located around the property. Plastic sheeting is taped to the walls and the baseboards in the room where the Internal Slab Jacks are to be installed. Small holes are cored through the foundation to gain access for the supports. The Helical lead section is driven down into the soil past the weak zone. Additional Helical extensions are driven to the depths needed to generate a 2:1 safety factor. Then, excess pipe is cut off and the bracket is placed underneath the slab. An adjustable bracket connects the top of the pier to the underside of the slab for easy lifting and re-leveling of the concrete slab. The bracket assembly is tightened and pressure is applied; the bracket evenly distributes lifting force along the bottom side of the concrete slab. The slab is lifted back to as close to original grade as possible. The core hole is backfilled with concrete and trowel finished. The work site is cleaned up.