



**STRONG
FOUNDATIONS
MADE EASY**

UKHELIX

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WHAT ARE SCREW PILES?

Fast, Strong and Low Impact Foundations

A screw pile (or helical pile) is a form of steel foundation that is rotated into the ground with one or more helix shaped support plates attached to a shaft. Screw pile foundations offer many benefits, made of high grade structural steel, you can install them quickly and with minimal waste, vibration and ground disturbance.

Big drilling rigs are not needed because screw piles can be put in by hand or with an excavator and there is no waste removal required. Screw piles are also removable, which is useful if the build is temporary or if designs change, there is no major digging required and use of concrete can be reduced.



- Low levels of disturbance in natural or residential areas
- Well suited for use near trees with preservation orders
- Portable and hand held installation — to overcome access issues
- No drill spoil or excavated waste to remove
- Minimal vibration and noise compared to standard methods
- Loading/Building can start immediately
- Removable for temporary structures or if plans change
- No concrete curing or foam work

TERRACES

The Quick and Easy Decking Solution



Get the same results as traditional methods with less effort

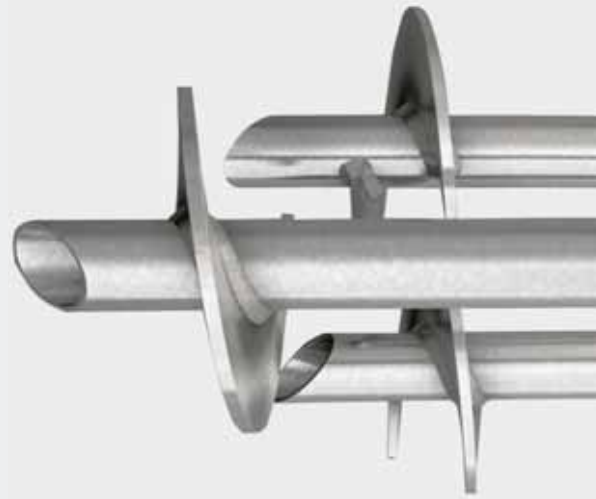
Would you like to avoid laying concrete for your terrace? Using the traditional method (digging, concrete and frost protection) is a considerable effort for a smaller project like a terrace. Screw piles make it fast and easy and often you won't need machinery as they can be installed simply by hand. Removing the need for excavation means the process can be sped up significantly. Installation is possible using large crow bars to provide torque, once installed, attaching the decking is straightforward thanks to the large variety of adjustable brackets we can supply.



Hand-installable pile models and adjustable brackets make for an easier install process

GARAGES AND SHEDS

Strong Foundations With No Digging



Minimal footprint of screw piles works well in small areas

If you are thinking of building a small structure like a garage or a shed, screw piles are a great option. With no dewatering needed, you can create a strong, solid foundation quickly and often at a reduced cost. Hand or machine installation is possible and doesn't require any large scale earthworks.



The small footprint of the screw piles also makes them a great choice if space is at a premium, and the wide range of U-brackets gives flexibility in accommodating vertical garage pillars.

FENCES

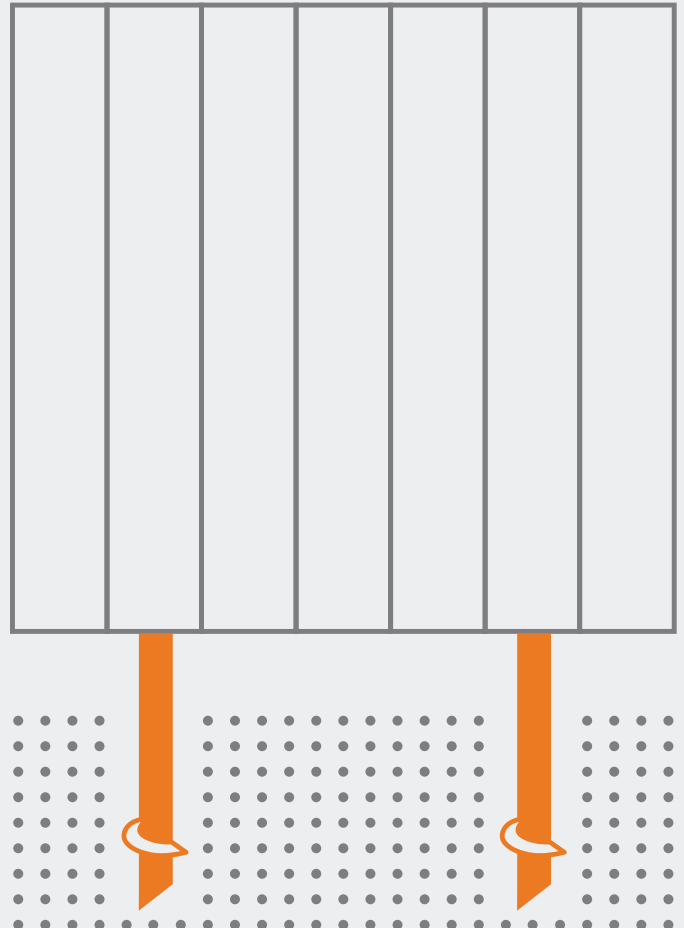
Versatile and Reusable Fence Foundations



Erect fences with no excavation

Whether you are considering a light garden fence or a heavy noise reduction barrier, screw piles can be a great choice. With the right conditions and machinery, and a competent team, screw piles can be installed in a matter of minutes. The use of adjustable brackets can make the job even easier. Installing the screw pile's helix to a frost-free depth easily negates the need for frost protection.

The small footprint means screw piles can be installed in tight spaces – ideal when you have a narrow path for your fence to follow – and their reusability makes them great for temporary fencing as well.

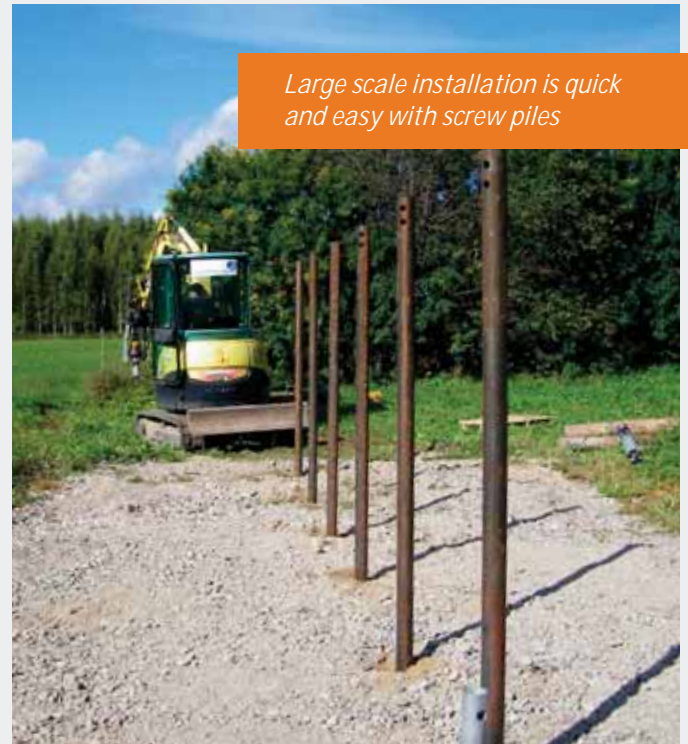
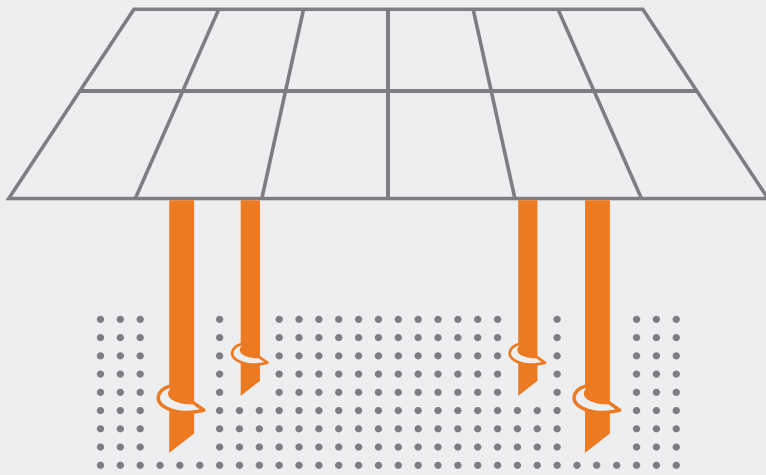


Screw piles can be used for everything from garden fences to sturdy noise reduction walls

SOLAR PANELS

Save Energy Harvesting Energy

You can have a low impact foundation solution for your solar panel project. Screw piles complement solar panel installations particularly well. They can be installed quickly, even in large numbers, making 'pop-up' solar power plants a reality.



They are also environmentally friendly, as they're reusable and don't contaminate the ground or use concrete. Simply screw them in, attach the panels, and reap the benefits of clean energy.

*Perfect for solar installations
in unspoilt natural environments*



CABINS

Cabins Made Easy



Raised foundations keep the cabin floors dry and aerated

If you have been thinking about a cabin, a home office, a home gym, summer house or a granny annex in your garden screw piles could be just the answer. Screw piles have a high load capacity, so they're great for more than just sheds or temporary structures, they can form the foundation for solid cabins or houses-no excavation,

frost protection, or dewatering is needed, and they are ready to use as soon as they're in place. With log cabins and wooden cottages, the ground clearance provided will ensure the floor stays dry as well. Finally, screw piles offer flexibility in where you can build – even clay soils are not a problem.



CHOOSING THE RIGHT

Installation by Hand

- For lightweight structures
- When there are relatively few piles to be installed
- When you want to “do it yourself”



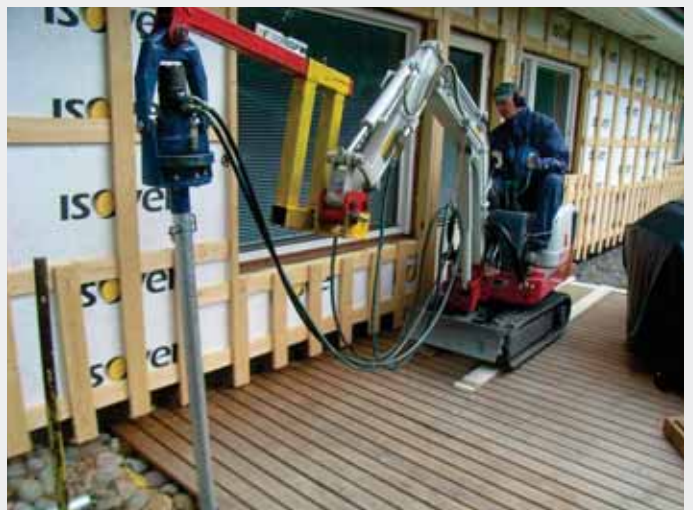
Installation with Hand-held Machine

- For installing multiple piles
- When more torque is required
- When there is no access for an excavator



Installation with Micro Digger (.8 ton)

- When there is limited site access
- When an accurate torque rating is required
- When a higher load capacity is needed



INSTALLATION METHOD



Installation with Mini Digger (1.5-2.5 ton)

- For bigger structures, garden buildings/workshops or gyms
- When accurate torque readings are required
- When there is sufficient access



Installation with Mid-sized Excavator (3-5 ton)

- When there is sufficient access
- When higher load requirements and bigger tube diameters are to be installed
- When there are a high number of screwpiles to install



Installation with Large Excavator (8 ton upwards)

- For commercial size projects- solar farms, railway works, houses and commercial buildings
- When there are high load requirements and bigger tube diameters to be installed
- When there is sufficient access

HOUSES AND EXTENSIONS

A Versatile Solution

You can use screw piles to overcome various build challenges as well as to provide low impact foundations for the environmentally minded. In construction there are often challenges to do with planning, tree protection orders, flood prone areas or soil conditions whereby screw piles are the only choice for developers to ensure the build goes ahead. In these cases we are happy to offer advice on the correct use of screw piles.



To meet planning this house project needed to be erected in a barn, screw piles were an ideal solution.

Today there is also the welcome move towards low impact, “passive houses” whereby clients wish to create the smallest possible impact on the environment and produce sustainable houses. At UKHelix, we are happy to help developers with any enquiries related to such issues and we have a range of case studies we can provide for reference.

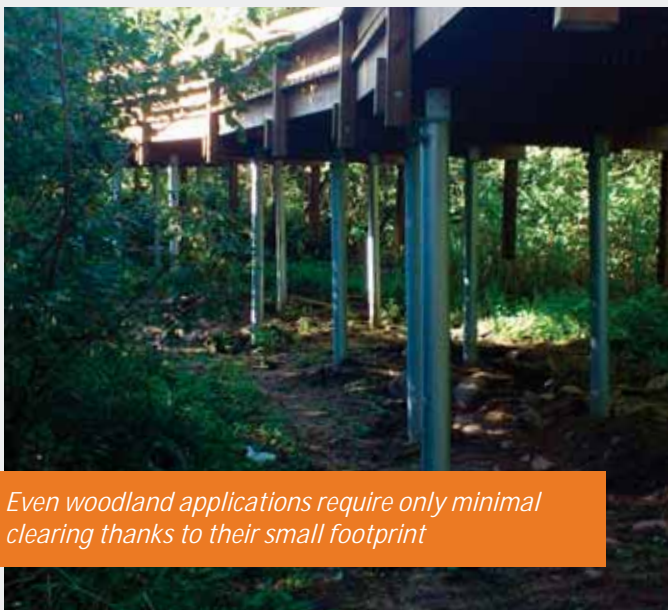
LIMITED ACCESS AND PROTECTED SITES

Hard to Reach?
Tree Issues? No Problem



Light weight piling equipment can be moved into tight and difficult places

As screw piles are so simple to use, they require only minimal installation equipment, and this means they can be utilised for construction in tight spaces where access is difficult. In addition, screw piles can easily drill down past root activity making them a great solution when working near protected trees. The low weight means there is no need to prepare the road or surface which allows work to be completed on soft soils and in rural areas. Screw piles have been used successfully in forest work, near protected trees and even in marshland environments with minimal impact on the surrounding ecosystems.



Even woodland applications require only minimal clearing thanks to their small footprint

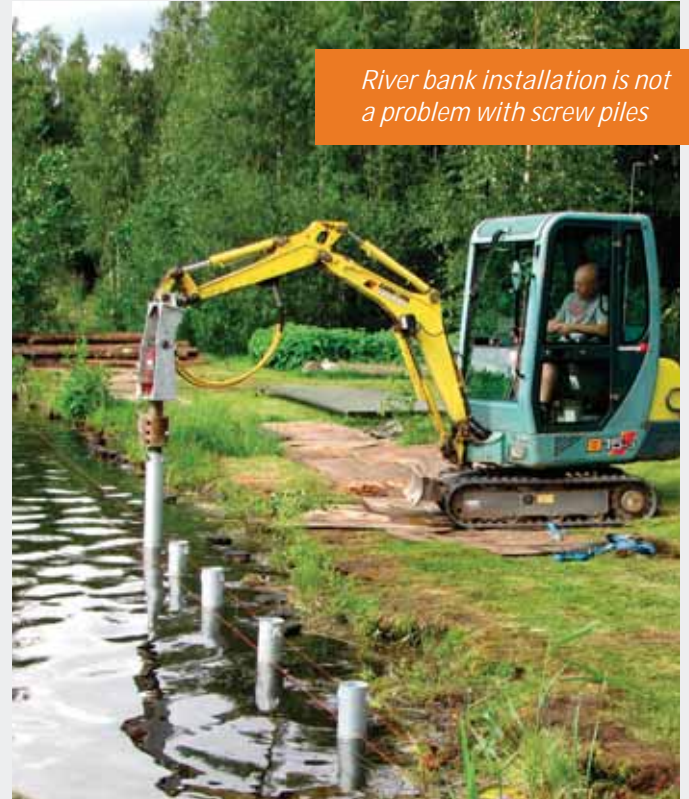
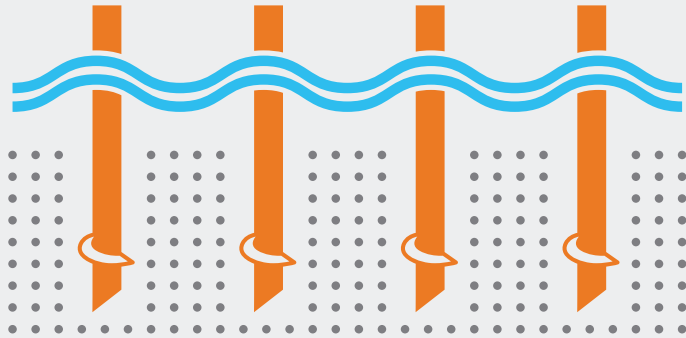


Screw piles suit installation in a wide variety of environments

AQUATIC CONSTRUCTION

Water is No Obstacle

If you have a pier, a bridge, decking, a dock or supporting wall to build you might want to consider an in-water installation using screw piles. Light installation equipment allows them to be easily installed along river banks and piers without the need to accommodate bulky or heavy machinery. Rust protection can be added to the screw piles to protect them against whatever environment or application they will encounter.



NON-PERMENTANT STRUCTURES

Game Changing
for Pop-Up Structures



The helical design of our screw piles gives them superior uplift capacity compared to normal piles, and this makes them ideal for supporting air domes, inflatable structures, large tents and marquees. They offer a fast and cost efficient method to support these structures. Their minimal footprint complements a clear span design and both screw piles and pop up structures can be easily moved when required, making them ideal additions to existing sports fields or outdoor events.

Screw piles can easily be installed around existing facilities



GEO THERMAL PILES

The Future is Sustainable

Extraction of geothermal energy from within the pile can offer you both innovative heating and cooling solutions. This can reduce heating or cooling costs over the lifetime of a structure and can be an important part of ultimately making a build carbon neutral. The process relies on drawing heat from the ground, where the temperature remains constant, and circulating it around a structure, cooling works by reversing the process, drawing the warm air from the structure and dispersing it into the ground. The approach of using screw piles, a low impact form of foundation, and feeding geothermal pipes through those piles is in an innovation that is sure to become more popular as we move towards sustainable housing.

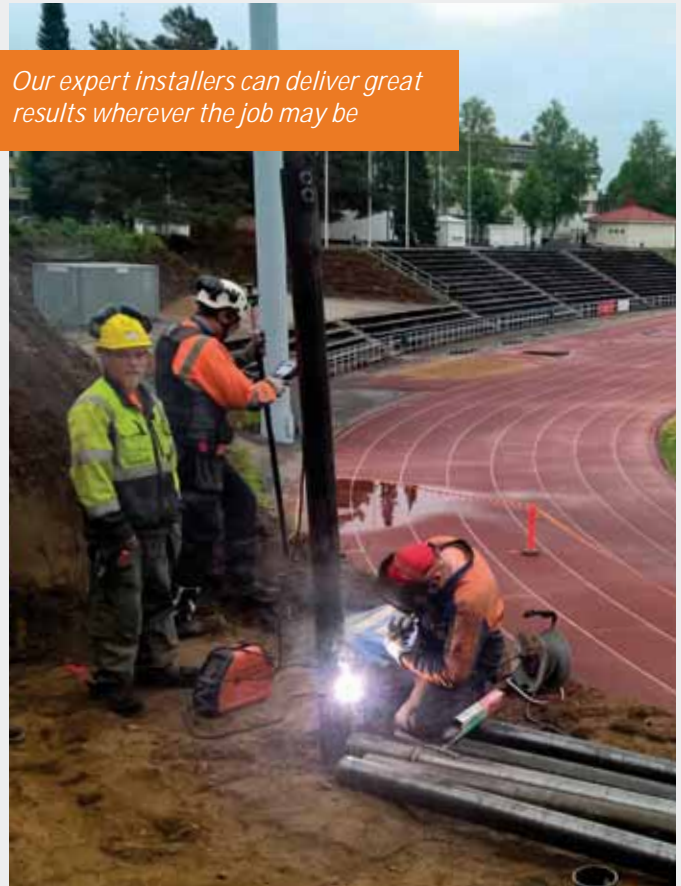


INSTALLATION SERVICE

Qualified Experts
On Hand



As well as supplying high quality screw piles, we offer a range of installation services for our customers drawing on our trusted installer network. You can expect the highest level of professionalism from all our installers, as well as access to an arsenal of equipment. We have experience organising installs for projects ranging from garden houses to large scale construction. Feel free to give us a call to discuss your install project.



INSTALLATION EQUIPMENT

All The Tools
You'll Ever Need



For those intrepid enthusiasts and experts wishing to do the installation themselves, we offer the rental and sale of (machine-mounted) rotators for quick and easy screw pile installation. The rotators will fit machines as small as a 0.8 ton excavator (which is small enough to fit through a doorway) and can install our DIY screw piles, all the way up to 13 ton excavators suitable for larger piles.

QUALITY AND RELIABILITY

Our Commitment to Excellence



UKHelix is the sole UK distributor of the Finnish screw pile producer Paalupiste Oy. Paalupiste Oy has been working with screw piles since 2001 and produce some of the highest quality piling products available. All of our screw piles are CE-marked and the manufacturing processes are backed by an ISO 9001 quality certificate and an ISO 14001 environmental management certificate.

All our products are made in Finland to the highest certifiable standards and have seen successful implementation across Europe. We are a friendly team who are always happy to provide more information or discuss potential projects. Please feel free to contact us if you have any questions concerning screw piles or you have an upcoming project in mind which is in need of solid, versatile foundations. We look forward to hearing from you.



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