



An Introduction to Keller in the UK

- ▶ **Piling and Ground Improvement**
- ▶ **Grouting, Soil Nails and Anchors**
- ▶ **Retaining Walls**
- ▶ **Equipment Manufacture**
- ▶ **Monitoring and Instrumentation**



global strength and local focus

At Keller, our solutions for clients' geotechnical challenges are built on a foundation of global experience.

With our financial strength, our clients know we are a reliable partner both now and in the future.

Keller has a deep understanding of the local UK market, but is also connected across the globe in more than 50 countries.

Whether your site requires a foundation, environmental, slope stability or groundwater solution, Keller has the answer.

- ▶ **We offer the largest range of techniques to solve foundation, groundwater, slope stability and retention issues.**
- ▶ **We have an unrivalled in-house capability to both design and construct solutions. We are BIM level 2 compliant.**
- ▶ **We have the industry's newest fleet of equipment and experienced personnel to tackle the most difficult challenges or programmes.**
- ▶ **We have the financial strength to fulfil what we say and be there in the future.**
- ▶ **We are proud of our safety record.**

Keller is renowned for providing innovative and cost-effective solutions to ground engineering and foundation problems. We have an unrivalled coverage in the United Kingdom where our services are used in infrastructure, building and civil engineering projects.

Our industry leadership is driven by our network of outstanding companies across the world and the people behind them.

We combine detailed local knowledge with world-leading experience to ensure that no question goes unanswered and no problem goes unsolved.

Our foundation solutions are built on what sites need in today's world.



Because of the desire to generate less spoil, we offer three displacement piling systems - pre cast driven, driven cast in situ and vibro concrete columns. These systems are ideal on contaminated sites.

Where loads are high or spoil is not an issue, we can install large diameter piles, bored piles and diaphragm walls using a fleet of the most modern instrumented rigs. Piles can also be used in restricted headroom to underpin and strengthen bridge or dock structures or install mezzanines. Our smallest piling rigs can be craned into place to form basements or bearing piles in the smallest of city centre sites.

Where large basements or deep excavations are required, we can design and construct in-house embedded retaining walls together with support systems using either our own patented anchoring techniques or propping systems. No other geotechnical player can combine both design expertise with the widest range of construction skills and experience.

In the field of Ground Improvement, Keller leads the way. In particular, our vibratory systems are highly respected as we can treat the widest range of soils in the sector and so are often an engineer's first choice for collaboration. Furthermore, our global scale means that newer systems such as Soil Mixing can be brought in to the UK from overseas.

What we call global strength and local focus.



A number of Keller's techniques serve the civil engineering sector and some of UK's most iconic projects have benefited from Keller design and construct solutions.

Tunnelling schemes often require specialist techniques at portals such as soil nailing or piling to retain the portal walls. Where tunnelling is being carried out in waterlogged ground, our grouting systems can be employed to reduce permeability.

When tunnelling is being carried out beneath major structures then our patented Soilfrac system can redress any settlement that might occur. Keller has extensive experience in this compensation grouting technique in various parts of the world.

Keller's anchorage systems offer the capability to design and construct the longest and most highly loaded anchors due to our patented Single Bore Multiple Anchor system. We are regularly first choice to be part of a consortium on major schemes.

When working over soluble rocks, our compaction grouting techniques can render an otherwise undevelopable site viable. We can combine such techniques with piling or ground improvement and offer a solution with a warranty that can be relied upon.

Phi Group is the market leading retaining wall specialist in the UK.

Phi Group has been providing clients and contractors with a quality service for the last thirty years. We offer the complete design, supply and installation service, undertaking more than 300 retaining wall and slope stabilisation contracts every year, in this challenging and demanding field of construction.

We use our extensive product range to deliver a solutions led approach to solve your retaining and slope stabilisation problems. Working in a competitive and changing market, we continuously evolve our approach to ensure that we remain at the forefront of retaining structures technology. Our solutions include, but are not limited to, timber and concrete crib walls, gabion baskets and reinforced soil slopes and structures.

From our Head Office in Cheltenham, together with regional offices in Leeds and Dunfermline, we provide a nationwide design, supply and installation service across all sectors of the construction market. Full designs are carried out in-house, with our experienced operatives on site guaranteeing we deliver a cost-effective, high quality service with environmentally-friendly products.

Colcrete Eurodrill is the largest drilling consumable and grouting equipment manufacturer in the UK.

As the name suggests, we manufacture two distinct product lines.

Colcrete product lines consist of colloidal grout mixers, providing rapid, high shear mixing of materials, together with agitation tanks, tunnel grout systems, high and low pressure grout pumps, and grouting platforms for various industry sectors, including offshore operations.

Grouting Equipment

Colcrete Eurodrill mixers are used for mixing bentonite, cement based grouts, including sanded grouts and PFA grouts. They are designed, constructed and tailored to customer requirements for specialist grouting operations such as encapsulation of waste, grouting systems for balanced earth pressure machines, dam grouting, soil nailing, pile grouting and for grouting ground anchors.

Our pumps are often utilised for permeation grouting or Soilfrac and can be used where G.I.N. curve grouting is required.

Drilling Equipment

We manufacture threaded drill casing for all applications, together with associated cutting shoes, crowns, drive flanges and adaptors.

Our friction welded API drill rods with extended tool joints are widely used for blast hole drilling and open pit mining, and we manufacture reverse circulation drill rods and subs for our own 'Euro' systems, as well as for popular systems currently available worldwide.

Our standard API drill rods are utilised for all types of geotechnical drilling, and we offer double and triple wall rods for jet grout applications.





Getec specialises in providing instrumentation and monitoring solutions for a wide range of applications.

We focus on providing reliable and repeatable data from professionally-installed instrumentation and presenting it to our clients in the most effective and user-friendly way.

Getec provides instrumentation and monitoring management to assist your project - from early contractor involvement and instrumentation advice to on-site project management. Getec has a desire to bring the latest innovations to the instrumentation and monitoring field in all the countries it operates in.

We take pride in our can-do attitude and delivering projects on time and in a professional manner. We have an impressive client portfolio that generates repeat business based on our key values; Integrity, collaboration and excellence.

Although we are a global organisation, our regional structure means that our businesses are close to their customers and can respond quickly to their needs.

Whatever the size of the project and wherever it is, we are on hand to offer an excellent service.

Solutions Matrix

		GROUTING					GROUND IMPROVEMENT					EARTH RETENTION					STRUCTURAL SUPPORT			OTHER						
Techniques		Injection Grouting	Permeation Grouting	Compaction Grouting	Soilfrac®/ Compensation Grouting	Jet Grouting	Dry Soil Mixing	Dynamic Compaction	Rigid Inclusions	Vibro Compaction	Vibro Concrete Columns	Vibro Replacement	Wet Soil Mixing	Ground Anchors	Gabions	Crib Walls	Reinforced Soil	Soil Nailing	Secant Piles	Contiguous Piles	King Post Walls	Continuous Flight Auger Piles	Driven Cast In-Situ Piles	Driven Precast Piles	Micropiles	Diaphragm\Slurry Walls
Applications																										
	Tunnel Portals																									
	Piling																									
	Earth Retention/Shoring																									
	Environmental																									
	Foundation Upgrade/Repair																									
	Groundwater Control																									
	Road & Rail Stabilisation																									
	Seismic/ Liquefaction Mitigation																									
	Swallow Hole Remediation																									
	Slope Stabilisation																									
	Ground Improvement																									
	Tunneling Stabilisation																									
	Underpinning																									
	Void Filling																									

This chart represents techniques that could apply to the listed geotechnical challenges. The actual applicability of a particular technique will be dependent upon the soil character (soft, loose, stiff, dense, organic, collapsible, etc.) and its composition (clay, silt, sand, cobbles, boulders, etc.). Occasionally, multiple techniques used simultaneously could provide a more economical solution. Other considerations include accessibility, availability of materials, presence of utilities or other underground obstructions, and many other internal and external influences. Consult with your local Keller representative to discuss specific site conditions and appropriate Keller geotechnical construction solutions.



Keller's team of engineers, project managers and construction experts are available to provide a solution to your geotechnical problem.

CONTACT US TODAY

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www.phigroup.co.uk

www.getec-uk.com

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