

Piling Equipment Specialists

Sales - Hire - Parts and Service - Project Support



Over the past year multiple ABI Mobilram telescopic leader rigs and attachments have been used by our customers to install rigid inclusions at various project locations around the UK.

Rigid inclusions (RIs) are an increasingly favoured method of ground improvement, particularly where soil conditions are too weak to support heavy structural loads. Rigid inclusions are typically grout or concrete piles that are installed into softer soils using rotary displacement techniques. This method creates vertical inclusions without removing soil, offering a low-vibration, low-waste alternative solution as opposed to traditional piling.

The finished inclusions enhance bearing capacity and control settlement over large surface areas, making the method particularly suitable for logistic hubs and infrastructure schemes.

In the face of rising demands for sustainable construction, ABI's Mobilrams offer a solution that delivers exceptional precision, fuel efficiency, safety and productivity for RI applications.

The Challenge

Contractors working with rigid inclusion techniques must strike a balance between:

- Meeting strict geotechnical performance targets
- Reducing carbon emissions and environmental impact
- Maintaining high productivity in time-sensitive projects
- Operating efficiently in space-limited or built-up areas.

Ground Improvement Rigid Inclusions

Project Locations: Various

Equipment: Various ABI Mobilrams

Technique: Full Rotary Displacement



Piling Equipment Specialists

Sales - Hire - Parts and Service - Project Support



The Solution – ABI Mobilrams

The ABI Mobilram range—particularly the TM13, TM17, TM20 and TM22 models—have proven to be a game-changer in RI installation. These rigs are designed for rapid, precise, and environmentally responsible execution of ground improvement works.

Key Advantages

Each rig is equipped with ABI's patented Efficiency Drive technology, which dynamically adjusts the required power to the attachment based on actual demand and site-specific ground conditions. This minimises fuel consumption and greatly reduces emissions, resulting in measurable cost and carbon savings over time.

When being used to install rigid inclusions, our Mobilrams are equipped with high torque auger drive systems together with specially designed adjustable bottom guide assemblies to suit the wide range of tooling utilised by our customers. The result is a high-performance piling process that is quick, efficient and quiet, generating minimal environmental impact compared to conventional bored or driven piling methods.

The TM13, TM17, TM20, and TM22 rigs offer contractors a versatile range of solutions for rigid inclusion project with rapid mob and demob times along with excellent manoeuvrability across the job site. From compact models ideal for inner-city or confined spaces to heavy-duty rigs built for large-scale infrastructure and complex projects, the range offers tremendous versatility.

Noteworthy too is the ability of our higher torque, higher crowd force Delmag drilling rigs to also undertake this popular technique, if required.

The telescopic leader masts with their ability to articulate into tight corners make our ABI Mobilrams ideally suited for working in tight site locations or restricted conditions, offering extended reach, 360-degree working, high torque, and reliable performance where and when it matters most.



Piling Equipment Specialists

Sales - Hire - Parts and Service - Project Support



Precision Ground Engineering

The Mobilram's advanced kinematics and robust leader mast design ensure precise control of installed positions, enabling consistent diameter and depth — essential when managing settlement tolerances or working near existing structures.

Conclusion

ABI's Mobilram systems enable ground improvement contractors to meet geotechnical, environmental, and commercial targets without compromise. Whether installing RIs beneath a distribution warehouse or stabilising soft soils for infrastructure projects, the TM13, TM17, TM20, and TM22 offer:

- Increased fuel efficiency helping to reduce our client's carbon footprint.
- Faster execution
- Lower environmental impact
- Unmatched versatility on site

ABI Equipment continues to lead the way in sustainable ground improvement solutions.

