

Piling Equipment Specialists

Sales - Hire - Parts and Service - Project Support



During 2021/22 ABI Equipment provided Trittech Ground Engineering with an ABI TM13 Mobilram for various projects across the UK. On each occasion the rig was used to install Vibro-Stone Columns.

The TM13 Mobilram undertook vibro-stone column works in various locations. Each site was treated to a depth between 4-6m. This new rig combines excellent operational efficiency with low noise level. Fuel consumption has proven to be only 120-litres per day. This compact but powerful rig utilises a 209kW low emission/compliant diesel engine combined with ABI's Efficiency Drive System and MRZV12VV variable static moment, variable frequency vibrator to achieve these excellent figures.

Stone columns are a ground improvement technique, used to stabilise areas of weak or variable soils, or made ground. Installed to relatively shallow depths across a proposed construction site, they serve to unify the ground and make it less susceptible to settlement through reinforcement and densification. They are created using a probe that is vibrated into the ground displacing the soil around it, and then the void being filled with stones, gravel, crushed concrete or aggregate. This can be done using a top-fill method (pictured right) whereby the material is introduced at ground level, or a bottom-fill method where the material is introduced at the bottom of the shaft, through the hollow probe. As the aggregate is added the probe is withdrawn in stages, and vibration is used to settle and compact the material into the column void at each step.

Project: Various

Client: Trittech Ground Engineering

Equipment used: ABI TM13

Applications: Vibro-Stone Columns



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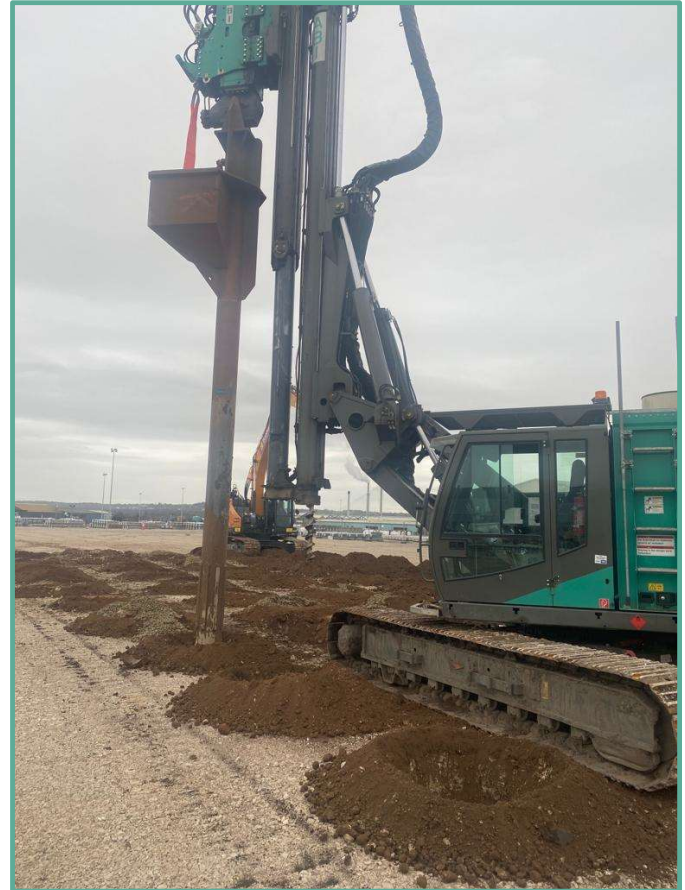


Stone columns can also assist with the drainage of saturated soils. Once installed on site the columns can then be used to support foundation mattresses for low rise buildings and similar construction.

ABI Equipment Ltd offers two slightly different TM13 Mobilrams from our UK hire fleet. One has wider track pads for reduced ground bearing pressures and a larger MRZV16VV vibrator, but both have the same installed engine power and fuel economy.

The TM13 is incredibly compact with a transport width and length of just 2.5m x 9.0m, and weighs only 40-tonnes.

Note: the picture to the right here shows a typical 'bottom feed' probe (sometime called mandrel or poker).



Karl Amos, Associate Director at Trittech Ground Engineering Ltd says:

“We have been impressed with ABI’s new TM13 Mobilram. It has proven to be a powerful, reliable, and very efficient workhorse. Not only has it dealt with the challenges that each site has presented, but we have also seen tremendous fuel savings, reduced operational noise levels, quick mod/demob times and excellent production rates.”