



METRO PILING

— ENGINEERING STRONG FOUNDATIONS —

VIBRO STONE COLUMNS

GROUND IMPROVEMENT SOLUTIONS

vibro stone columns are formed by introducing and compacting graded stone into weak soils. The columns reinforce the ground, improve drainage and reduce total and differential settlement beneath foundations, slabs and infrastructure.

DESCRIPTION

Vibro stone columns are formed by installing compacted columns of graded aggregate through compressible soils to improve the strength and performance of the ground. A depth vibrator penetrates to the required treatment level before stone is introduced and compacted in controlled lifts to form a dense, stable column. Column diameter, depth and spacing are carefully selected to suit ground conditions, structural loads and settlement criteria.

Vibro stone columns are suitable for improving soft cohesive soils, peat, loose granular deposits and made ground beneath foundations, floor slabs, storage tanks, roads and embankments. The columns increase bearing capacity, reduce total and differential settlement, improve overall ground stiffness and provide effective drainage paths through the treated ground. Installation produces minimal spoil and can provide a fast, efficient and economical alternative to conventional deep foundations where ground and loading conditions are suitable.



APPLICATIONS



Residential
Infrastructure
Commercial



ADVANTAGES



Improved bearing capacity
Reduced Settlement
Rapid Installation
No spoil generation
Improved drainage

INSTALLATION PROCESS

Set out - Confirm column positions and working platform.
Penetrate - Advance the vibrator to the design depth.
Feed stone - Introduce clean graded aggregate.
Compact - Compact in lifts while withdrawing the vibrator.
Finish - Trim the column head and verify records

TYPICAL CAPABILITIES

PARAMETER	FROM	TO
Column diameter	350 mm	1,000 mm
Treatment depth	3 m	10.0 m*
Column spacing	1.5 m	2.5 m*



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