



Ground Anchorages are used for a variety of applications and take a number of forms with uses for both temporary and permanent works. Simplistically they are anchorages into the ground which can be either passive or active in type.

## // BASIC TECHNIQUES

Anchorage head movement can be influenced by stressing post installation and locking off the anchor at a percentage of design load. Typically the anchorage detail will include a design free and fixed length. Both bar and strand type anchors can be installed to suit the application and will incorporate appropriate levels of corrosion protection and be tied into an anchor head and or capping or waling arrangement. Pressure and post grouted systems can be

used to enhance capacity. In conjunction with a piled retaining wall a total fully designed basement support system can be offered.

Application examples include tie backs, anchorages for piled retaining walls, tension elements to tie down structures or to resist uplift forces and for slope and rock stability.



**// TECHNICAL CAPABILITIES**

Dimension	From	To
Diameters Range	<100mm	450mm
Height of Rig	2.20m	8.00m
Width of Rig	0.75m	2.40m
Length of Rig	1.80m	5.40m
Inclination	Vertical	Sub Horizontal

Bar and Strand types are both available in configurations to suit temporary and permanent applications

Balfour Beatty Ground Engineering offer a range of soil and rock anchorage solutions using small scale rigs capable of installation angles varying from vertical to sub horizontal. They can be installed by a variety of boring and drilling methods to suit the ground conditions usually utilising site batched grout.

**// STRENGTHS**

- Small lightweight equipment
- Minimal site preparation
- Limited headroom, restricted access capability e.g. can work within existing buildings, on slopes, within excavations etc.
- Can be installed in most ground conditions including systems for penetrating rock
- Can be stressed post installation and instrumented for continuous on-going monitoring



**FOR FURTHER INFORMATION CONTACT:**

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