



GROUND TECHNOLOGY



Dynamic Probing

Dynamic probing can be used to rapidly profile the relative penetration resistance of the ground between boreholes, on sites with limited access or within buildings. It is particularly useful for identifying voids or areas of weaker strata in the soil profile. The test involves driving a standard cylindrical sacrificial or fixed cone into the ground using a percussive hammer.

We are able to undertake dynamic probing using either our tracked Dando Terrier or wheeled Geotool rigs. Different configurations can be used depending on the ground conditions and the purpose of the dynamic probe. Although we can offer different testing configurations, the most common standards we use are Heavy (DPH) and Super Heavy (DPSH-B) arrays. The tests are carried out to BS EN ISO 22476-2, which requires the energy efficiency ratio to be measured for each hammer. All of our rigs have been tested in accordance with this standard.

The cone is driven into the ground attached to the leading end of a 1m long steel rod. On each successive metre of driving a new rod is added and the driving process continued, until refusal or the required depth is reached. The number of blows taken per 100mm of penetration is recorded along with a torque reading after every metre.

The results obtained from the dynamic probe can be correlated to the Standard Penetration Test 'N' value for granular soils and the undrained shear strength of cohesive soils, using published empirical correlations.