

# Specialist In Situ Testing



## **SOCOTEC offers a range of specialist in situ testing services for geotechnical ground investigations.**

SOCOTEC is highly experienced in carrying out specialist in situ testing suitable for obtaining geotechnical information in different ground conditions. As the first ground investigation company to use pressuremeters in the early 1980s, we continue to be at the forefront of adopting new innovative technologies.

### **Benefits of in situ testing**

In situ testing is a valuable accompaniment to more traditional ground investigation methods such as drilling, sampling and laboratory testing. It can provide information on ground conditions and properties, without the inherent problems of sample disturbance and laboratory turnaround times. In situ tests are generally quicker to perform and often provide a depth profile rather than just a single result. Preliminary data is usually available on-site, allowing on-going adjustments to be made to the investigation scope and programme.

### **Our expertise**

Our experienced team of site operatives are focused on delivering testing in a professional and reliable manner, and committed to providing prompt interpretation and delivery of data. From the enquiry stage through to the testing programme, we are able to give advice, keep our clients informed and ensure the appropriate testing methods are used, offering alternatives where appropriate. SOCOTEC is committed to quality assurance and works in accordance with the relevant British Standards that apply. We operate under UKAS accreditation\* to guarantee the integrity of our testing methods and ensure our equipment and data is to the required standard.

\* A listing of SOCOTEC's UKAS accredited activities can be found in our schedule of accreditation – Testing Laboratory 1157 – at [socotec.co.uk](http://socotec.co.uk)

# SPECIALIST IN SITU TESTING

## Cone Penetration Testing

We carry out Cone Penetration Testing (CPT) using truck and crawler units, as well as independent penetrometer sets for use on marine jack-up, floating platforms, and in bespoke situations. Our CPT equipment includes:

- Electric friction cones and piezocones – for assessment of soil stratigraphy and strength characteristics. Dissipation tests can be carried out to estimate consolidation properties
- Seismic cone – for measurement of shear wave velocity profile and determination of shear modulus
- Magnetometer cone – for detection of ferrous metals and Unexploded Ordnance (UXO)
- Mostap sampling – for recovery of undisturbed samples
- Vane testing – for strength measurement of softer clays
- Push-in pressuremeters

## Pressuremeter Testing

SOCOTEC operates a range of pressuremeters including:

- Self-Boring Pressuremeter (SBP) - for testing in a range of clays and sands
- High Pressure Dilatometer (HPD) - for use in over consolidated soils and rocks
- Flat Plate Dilatometer – for testing in soils using CPT or drilling rigs
- Push-in Pressuremeter – for testing in soils using CPT or drilling rigs

These sophisticated instruments perform local load-displacement tests within a borehole or in the ground. The data obtained can be directly interpreted to provide, where appropriate, in situ lateral stress, strength and stiffness parameters of the ground. Pressuremeter testing can be carried out in conjunction with SOCOTEC's own in-house drilling services or with drilling services provided by others.

## MORE ABOUT OUR SERVICES

For more information or advice about our specialist in situ testing services please call 0845 603 2112 or email [salesuk@socotec.com](mailto:salesuk@socotec.com)

