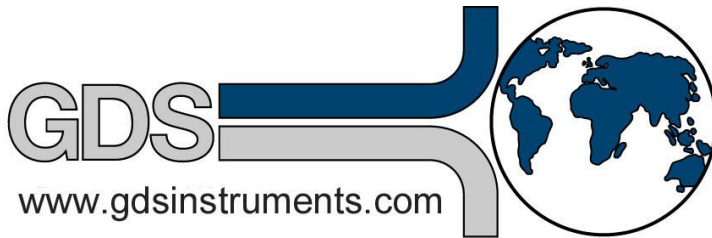


# Company Profile of GDS Instruments

## A division of Global Digital Systems Ltd



### Summary

GDS Instruments, a division of Global Digital Systems Ltd, a world leader in the manufacture of laboratory and field testing equipment for use by geotechnical engineers and geologists. We are specialists in software based triaxial testing systems for soils and soft rocks, consolidation testing systems, and in-situ testing systems for the evaluation of shear modulus v. depth profiles. GDS is an ISO9001:2000 certified company.

### History

GDS Instruments was founded in England in 1979, then known as "Geotechnical Digital Systems". The company's first product was the computer controlled triaxial testing system based on the "Bishop & Wesley" stress path cell. The cell was linked to the computer via microprocessor controlled screw pumps driven by stepping motors.

The screw pump or "digital controller" proved to be a major success in its own right as a computer controlled pressure source. The triaxial testing system was continuously developed throughout the 1980s and also became a major success. This was particularly the case with users wishing to carry out advanced testing without first spending many years developing new equipment.

The continuing success of these first two products has enabled us to expand the product range comprehensively. We can now provide our users with bespoke high pressure triaxial testing systems, high frequency triaxial testing systems, consolidation testing systems, logging systems, commercial testing systems as well as state-of-the-art unsaturated systems and transducers. We continue to develop hardware and software based solutions to our users' problems. Our biggest market is our existing users who pay us the compliment of reinvesting in GDS products.

The flexibility of our software-based systems, in particular the new GDSLAB software, allows us to suggest a strategy for meeting your testing requirements, whatever they may be.

### Internal organisation and customer support

GDS Instruments employs 31 permanent members of staff at their offices in Hook, in the UK. The emphasis within the company is that of professionalism and products fit for purpose. To fulfil these goals employees at GDS Instruments include 8 qualified geotechnical engineers, 4 software designers, 4 hardware designers and 5 electrical/electronics specialists.

At GDS we pride ourselves on our customer support. We are able to provide excellent customer support and training due to our expertise in the field of geotechnical testing. We base this success on the fact that we train people on equipment we design and manufacture in house.



## Products

In addition to complete systems we also supply individual components such as pressure controllers, testing machines, force actuators and test cells either from our existing range, or supplied designed to customers' specifications. We have a range of pressure/volume controllers with pressure ranges up to 150 MPa and with volume ranges of 200cc and 1000cc.

More recently we have developed a range of special products including special back pressured and high pressured shear boxes, dynamic cyclic simple shear machines and specialised displacement transducers for high pressure cells and hollow cylinder samples.

With a team of in-house programmers, the GDS software suites remain the main focus of our systems, and keep GDS ahead of the competition. Designed to be extremely flexible, GDSLAB can be used with the complete GDS range of equipment, but uniquely, may also be used with many other manufacturers' test equipment.

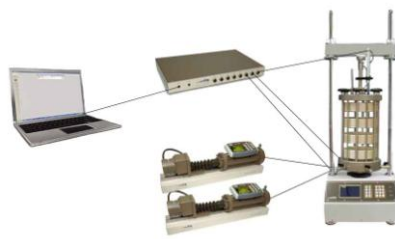
In addition to laboratory equipment, GDS also designs and develops geotechnical field equipment for geophysics testing. Both the GDS Continuous Surface Wave Systems and the Spectral Analysis of Surface Waves systems are designed for use in the field for site investigation. The systems provide a fast, portable means of testing the ground, particularly in relation to road, track and runway subgrade investigation and the quantitative monitoring of ground improvements, such as land reclamation and land fill sites.

See [www.gdsinstruments.com](http://www.gdsinstruments.com) for the full range of GDS equipment. Some examples of equipment supplied as part of the standard GDS Instruments range are shown below.

### Complete Bespoke Systems



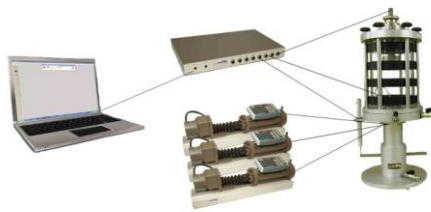
Dynamic simple shear



PC controlled triaxial system (GDSTAS)



2, 5, 10Hz Dynamic triaxial Testing system (DYNTTS)



Advanced PC controlled stress path testing system (ADVTTTS)

### System components



GDS Advanced Pressure/Volume controller, range from 100kPa to 150,000kPa



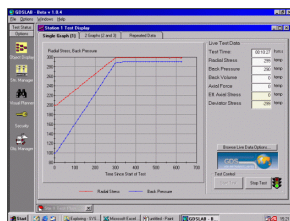
GDS axial loading Frame, range from 10kN to 500kN

### Field Geophysics

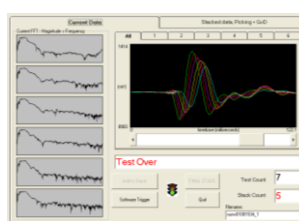


GDS Spectral Analysis of Surface Waves System

### GDS Software (Laboratory and Field)



GDSLAB Laboratory control and data acquisition software



GDS Spectral Analysis of Surface Waves Software

### Advanced Transducers



GDS Bender Element System