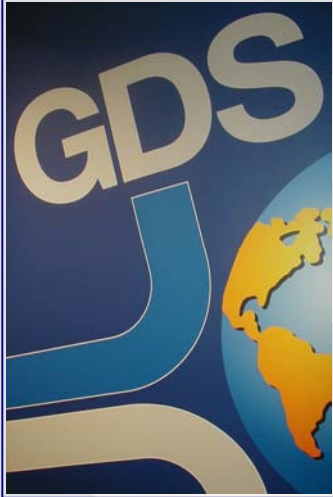




Special ECSMGE, September 2007 Newsletter

September 2007



This Issue of the GDS Instruments e-newsletter has been specially produced for the XIV European Conference on Soil Mechanics and Geotechnical Engineering entitled Geotechnical Engineering in Urban Environments.

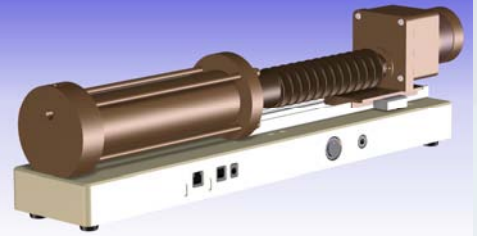
Launch of New Entry Level Pressure Controller at ECSMGE, Madrid, 2007

For over 25 years GDS Instruments have been manufacturing highly accurate Digital Pressure Controllers (DPC). These DPC's have been designed to give the highest accuracy for the control and measurement of pressures and volume changes and as a result can be seen in use in highly regarded geotechnical research laboratories throughout the world. Due to demand from commercial testing laboratories to provide a lower cost automated testing solution we are proud to release our latest version, the Entry Level Digital Pressure controller or ELDPC.

In line with existing GDS pressure controllers the ELDPC does not require a supply of compressed air to function and can be configured as a completely stand-alone device.

With a maximum pressure of 1000kPa and a volumetric capacity of 200cm³, the ELDPC fits neatly in the GDS range of pressure controllers below the premiere

Entry Level DPC



product namely the Advanced Pressure Controller (ADVDP) and the mid-range Standard Pressure Controller (STDDPC).

The new reduced size ELDPC makes it ideally suited for life in a commercial testing laboratory where bench space is usually at a premium.

The ELDPC has also been designed to be virtually maintenance free and environmentally friendly through low power consumption. The ELDPC is 100% RoHS compliant.

	ELDPC	STDDPC	ADVDP
Available Pressure Ranges (MPa)	1	0.1, 1, 3 or 4	0.1, 0.5, 1, 2, 4, 16, 32, 64, 128 or 150
Volume capacity	200cm ³	200cm ³	200 or 1000cm ³
Pressure accuracy	0.25%FRO	0.15%FRO	<0.1%FRO
Volume accuracy	0.4% measured +/- 50mm ³	<0.25% measured +/- 30mm ³	<0.1% measured +/- 12mm ³
Data acquisition	1 channel 12 bit	1 or 2 Channel 13 bit	1 or 2 Channel 13 bit Enhanced to 14 bit
Communication	USB	RS232	RS232 or IEEE488
Keypad & Display	Optional	Included	Included
Size (mm)	550mm x 100mm x 125mm	600mm x 230mm x 220mm	860mm x 230mm x 220mm

The ELDPC is suitable to be integrated into any GDS system and is an ideal upgrade for existing systems that use manual or compressed air pressure control systems.

The new ELDPC will be available to be ordered at the ECSMGE conference on the 24 September 2007.

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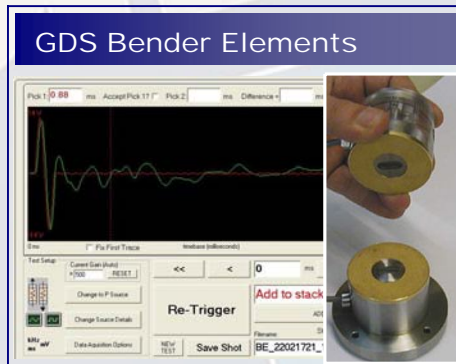
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Bender Elements now 2 Million samples/sec

The GDS bender element system has been recently upgraded. New Features at a glance:

- 2 Million samples per second per channel
- Simultaneous acquisition per channel
- USB Interface
- Titanium element inserts to reduce weight of top-cap
- Sine, square and user defined waves
- Combined P and S-wave elements
- Pedestals and top-caps can be made for other manufacturers' cells as well as GDS cells.
- Horizontally propagating elements available



GDS to manufacture 5 Hollow Cylinder Systems

GDS Instruments have been supplying Hollow Cylinder Apparatus (HCA) for over 15 years. The first GDS HCA was supplied to LNEC in Portugal in 1990. This year has been a record year for the GDS HCA with units throughout the world including Spain, Canada, China and the UK.

The increased interest in GDS HCA Systems is due to the high level of control afforded by electro-mechanical systems with very low "whole-life" costs. This coupled with the dedicated GDS software allows researchers to concentrate on their results more than the testing itself.

The beauty of the HCA test is the ability of the system to model the rotation of the principal stresses in the laboratory. The GDS system is also capable of running the axial and rotation axes simultaneously up to 5Hz.

Politecnico di Torino wins award for shear box paper

The team at GDS Instruments would like to take this opportunity to congratulate Prof. Barla and his colleagues at the Politecnico di Torino, Italy on being awarded the best paper in session at the 11th ISRM congress in Lisbon. The paper covers the use of the High-Pressure (10MPa/100kN) version of the GDS Back Pressured Shearbox (BPS).

Further BPS information may be found at www.gdsinstruments.com/products/gdsbps.htm



06/07 - 6 New Staff members

Due to the continued expansion of GDS during the last year we have brought 6 new members into our team. Dr Hossein Khansari who joins us to assist Jerry Sutton as an International Sales Engineer. Dr Ben Hutt and Jeff Grey have joined our Design team in Electronics and Mechanical Design respectively. New additions have also been made to our production and assembly teams.

GDS Sudoku Competition

Submit the numbers from the highlighted cells to enews@gdsinstruments.com to be entered into a draw to win a GDS shirt!

5	9			7	8	
	2		5			7
4	1		8		5	6
		1	3			4
		5		6	9	
8				4	2	
9		2		3		4 5
1				5		8
	5		4			6 9

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