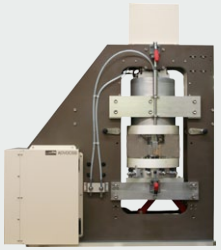
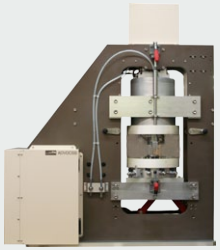
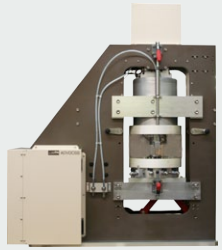
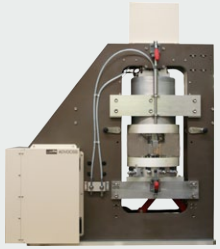
GDS Shear System Analysis	 Shearbase System	 Electro-mechanical Dynamic Cyclic Simple Shear	 Variable Direction Dynamic Cyclic Simple Shear	 Multi-Direction Dynamic Cyclic Simple Shear	 Combined Advanced Dynamic Cyclic Simple Shear
	GDSSS	EMDCSS	VDDCSS	VDDCSS-CP	ADVDCSS
LOAD / STRESS:					
Maximum Axial Load:	10kN (Standard 5kN)	10kN (Standard 5kN)	10kN	10kN	10kN (Standard 5kN)
Maximum Shear Load:	Simple Shear 2.5kN	10kN (Standard 5kN)	5kN	5kN	10kN (Standard 5kN)
Maximum Axial Frequency:	0.01Hz	5Hz	5Hz	5Hz	5Hz
Maximum Shear Frequency:	0.01Hz	5Hz	5Hz	5Hz	5Hz
Cell Pressure Available:	No	No	No	Yes	Yes
Maximum Cell Pressure:	N/A	N/A	N/A	1MPa	1MPa
2nd 'Y' Shear Axis Available:	No	No	Yes	Yes	No
Maximum 'Y' Axis Load:	N/A	N/A	5kN	5kN	N/A
Maximum 'Y' Axis Frequency:	N/A	N/A	5Hz	5Hz	N/A
Load Control Available:	Yes (On both axis)	Yes (On both axis)	Yes (On all axis)	Yes (On all axis)	Yes (On both axis)
Nominal Force Accuracy:	<0.1% of Maximum Load Rating	<0.1% of Maximum Load Rating	<0.1% of Maximum Load Rating	<0.1% of Maximum Load Rating	<0.1% of Maximum Load Rating
Shear Force Accuracy:	<0.1% of Maximum Load Rating	<0.1% of Maximum Load Rating	<0.2% of Maximum Load Rating	<0.2% of Maximum Load Rating	<0.1% of Maximum Load Rating
DISPLACEMENT / STRAIN:					
Displacement Control Available:	Yes (On both axis)	Yes (On both axis)	Yes (On all axis)	Yes (On all axis)	Yes (On both axis)

GDS Shear System Analysis	Shearbase System	Electro-mechanical Dynamic Cyclic Simple Shear	Variable Direction Dynamic Cyclic Simple Shear	Multi-Direction Dynamic Cyclic Simple Shear	Combined Advanced Dynamic Cyclic Simple Shear
					
	GDSSS	EMDCSS	VDDCSS	VDDCSS-CP	ADVDCSS
Shear Displacement Accuracy:	0.3% FSO	0.1%	0.1%	0.1%	0.1%
Shear Displacement LVDT:	Upgrade option	± 10mm - 0.1%	± 10mm - 0.1%	± 10mm - 0.1%	± 10mm - 0.1%
"Y" Axis Displacement Accuracy:	N/A	N/A	0.1% FSO	0.1% FSO	N/A
"Y" Axis Force Accuracy:	N/A	N/A	0.2% FSO	0.2% FSO	N/A
Normal Force Load Cell Resolution:	0.001kN	0.0001kN	0.0001kN	0.0001kN	0.0001kN
Shear Force Load Cell Resolution:	0.001kN	0.0001kN	0.0001kN	0.0001kN	0.0001kN
Axial Displacement Accuracy:	0.3% FSO	0.1% FSO	0.1% FSO	0.1% FSO	0.1% FSO
Axial Displacement Range:	Stepper Motor: 30mm Tx: 25mm	Encoder: 30mm LVDT: +/-2.5mm	Encoder: 30mm LVDT: +/-2.5mm	Encoder: 40mm LVDT: +/-2.5mm	Encoder: 100mm LVDT: +/-2.5mm
Shear Displacement Range:	Stepper Motor: 40mm Tx: ±25mm	Encoder: 40mm LVDT: +/-10mm	Encoder: 40mm LVDT: +/-2.5mm	Encoder: 40mm LVDT: +/-10mm	Encoder: 50mm LVDT: +/-10mm
"Y" Axis Displacement Range:	N/A	N/A	Encoder: 40mm LVDT: +/-2.5mm	Encoder: 40mm LVDT: +/-10mm	N/A
FEATURES:					
Computer Controllable:	Yes (Via GDSLAB)	Yes (Via GDSLAB)	Yes (Via GDSLAB)	Yes (Via GDSLAB)	Yes (Via GDSLAB)
Electro-mechanically Controlled:	Yes	Yes	Yes	Yes	Yes

GDS Shear System Analysis	 Shearbase System	 Electro-mechanical Dynamic Cyclic Simple Shear	 Variable Direction Dynamic Cyclic Simple Shear	 Multi-Direction Dynamic Cyclic Simple Shear	 Combined Advanced Dynamic Cyclic Simple Shear
	GDSSS	EMDCSS	VDDCSS	VDDCSS-CP	ADVDCSS
Custom Wave Forms Available:	Not available	Yes	Yes	Yes	Yes
Custom Wave Form (Points Available):	No	1000	256	256	1000
Back Pressure Control Available:	No	No	Yes	Yes	Yes
Dynamic Control Available:	No	Yes on both axis, for displacement & load control	Yes on all axis, for displacement & load control	Yes on all axis, for displacement & load control	Yes on both axis, for displacement & load control
Static Control Available:	Yes on both Axis	Yes on both Axis	Yes on all Axis	Yes on all Axis	Yes on both Axis
Pre-progrmmed waveforms:	Yes (Via keypad control)	Yes	Yes	Yes	Yes
Maximum Data Save Points Per Cycle:	N/A	1000	500	500	1000
Control Frequency During Testing From Control Unit:	1 point per second	5000 points per second	500 points per second	500 points per second	5000 points per second
Number of Channels on Data Acquisition Unit:	N/A (No data acquisition unit required for standard set-up)	8 (LEMO Type Connectors)	12 (DIN Type Connectors)	12 (DIN Type Connectors)	8 (LEMO Type Connectors)
GENERAL:					
PC Connection Type:	USB	USB	USB	USB	USB
Sample Sizes Available:	Up to 70mm Simple Shear Up to 100mm Direct Shear	Up to 100mm	Up to 100mm	Up to 100mm	Up to 100mm

GDS Shear System Analysis	 Shearbase System	 Electro-mechanical Dynamic Cyclic Simple Shear	 Variable Direction Dynamic Cyclic Simple Shear	 Multi-Direction Dynamic Cyclic Simple Shear	 Combined Advanced Dynamic Cyclic Simple Shear
	GDSSS	EMDCSS	VDDCSS	VDDCSS-CP	ADVDCSS
Data Acquisition Type:	In-built load, 2 x Digi RFM for standard transducers	8 Channel DCS	3 x 4 channel ELDCS	3 x 4 channel ELDCS	8 channel DCS
GDSLAB Compatible:	Yes	Yes	Yes	Yes	Yes
Size (WxDxH):	0.27 x 0.64 x 0.7m	0.42 x 0.77 x 1.2m	0.58 x 0.80 x 1.15m	0.9 x 0.9 x 2.35m	0.5 x 1.2 x 1.4m
Weight:	50kg		200kg		
Average FootPrint:	660 x 220mm	1m x 1m	1m x 1m	1.2m x 1.2m	1.5m x 2m
Direct Shear Upgrade:	Yes	Yes	No	No	No
Bender Elements Upgrade:	Yes	Yes	Yes	Yes	Yes
Unsaturated Testing:	No	No	No	Yes	Yes
Upgradeable to Local Strain Measurement:	Yes	Yes	No	No	Yes
Notes:					

Note: Due to continued development, specifications may change without notice.