



**Key Features:**

**Benefits to the User:**

Single connection built-in for load cell, with calibration set in firmware by the user:	No additional acquisition required to make the GDSL10 a stand along unit capable of load control via closed loop on board control.
Displacement measurement is built-in using measurement of motor movement (stepper motor steps):	No additional data acquisition required for displacement measurement of platen.
GDSL10 allows for up to 2 RFM's to be connected (Remote Feedback Module) which allows connection of up to 2 additional external transducers:	Any transducer connected by RFM is automatically capable of driving the GDSL10 platen under closed loop control. For example, a small strain axial transducer could be used to control the platen under displacement control from a transducer locally positioned on the sample or cell.

**Technical Specification:**

	Standard	Wide	Wide & Tall
<b>Dimensions of Frame (W/D/H):</b>	220mm, 260mm (including keypad), 656mm	260mm, 260mm (including keypad), 668mm	352mm, 260mm (including keypad), 956mm
<b>Horizontal daylight between columns:</b>	184mm	224mm	299mm
<b>Vertical daylight between top-beam and platen*:</b>	380mm	395mm	600mm
<b>Vertical daylight between 10kN S-beam load cell button and the platen*:</b>	270mm	285mm	490mm
<b>Axial Force Accuracy:</b>	0.1%FRO		
<b>Load Range (kN):</b>	Max Load 10kN		
<b>Displacement range/travel:</b>	Nominal 40mm		
<b>Displacement Accuracy:</b>	0.2% (Can be improved to 0.1% with an external transducer connected to an RFM)		
<b>Displacement Resolution:</b>	0.0001mm (0.1µm)		
<b>Power:</b>	110 to 240 AC Volt, 50/60Hz Input, 50 Watts		

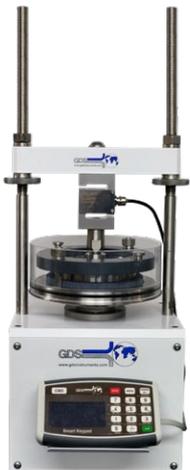
\*Measurement taken when platen is at lowest point.

**10kN Load Frame Options:**

Each frame can be configured as a standard system type with the addition of a test cell from the GDS range as per the table below.



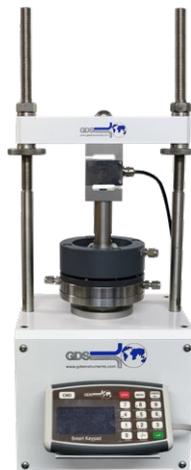
Testing Options:	Standard	Wide	Wide and Tall
Standard Oedometer Tests:	✓	✓	✓
Unconfined Compressive Strength:	✓	✓	✓
Constant Rate of Strain / Permeability (Open Top) Testing:	✓	✓	✓
Constant Rate of Strain (CRS) Testing, Elevated Back-pressure:		✓	✓
Triaxial Testing (Max cell size 76mm):			✓
Frame Reference:	004	001	003



Standard Oedometer Tests (Consolidation)



Unconfined Compressive Strength (UCS)



Constant Rate of Strain/Permeability (Open Top) Testing



Constant Rate of Strain (CRS) Testing, with Elevated Back-pressure



Triaxial Testing

## Why Buy GDS?

### GDS have supplied equipment to over 86% of the world's top 50 Universities:

GDS have supplied equipment to over 86% of the world's top 50 Universities who specialise in Civil & Structural Engineering, according to the "QS World University Ranking 2020" report.

GDS also work with many commercial laboratories including BGC Canada, Fugro, GEO, Geolabs, Geoteko, Golder Associates, Inpijn Blokpoel, Klohn Crippen, MEG Consulting, Multiconsult, Statens Vegvesen, NGI, Ramboll, Russell Geotechnical Innovations Ltd, SA Geolabs, SGS, Wiertsema and Partners to name a few.

**TOP  
50**

### Would you recommend GDS equipment to your colleague, friend or associate?

**100% of our customers answered "YES"**

Results from our post-delivery survey asked customers for feedback on their delivery, installation (if applicable), supporting documentation, apparatus and overall satisfaction with GDS. The survey ran for two years.



### Made in the UK:

All GDS products are designed, manufactured and assembled in the UK at our offices in Hook. All products are quality assured before they are dispatched.

GDS are an ISO9001:2015 accredited company. The scope of this certificate applies to the approved quality administration systems relating to the "Manufacture of Laboratory and Field Testing Equipment".

**40 YEARS OF  
BRITISH  
INNOVATION** 

### Extended Warranties:

All GDS apparatus are covered by a 12 month manufacturers warranty. In addition to the standard warranty, GDS offer comprehensive extended warranties for 12, 24 and 36 months, for peace of mind against any repairs in the future. The extended warranties can be purchased at any time during the first 12 months of ownership.



### GDS Training & Installation:

All installations & training are carried out by qualified engineers. A GDS engineer is assigned to each order throughout the sales process. They will quality assure the apparatus prior to shipping, if installation has been purchased, install the apparatus on the customers site & provide the training.



### Technical Support:

GDS understand the need for ongoing after sales support, so much so that they have their own dedicated customer support centre. Alongside their support centre GDS use a variety of additional support methods including remote PC support, product helpsheets, video tutorials, email and telephone support.

