

















IF IT'S WORTH BUILDING, IT'S WORTH TESTING

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Valve No Volume Change 1/4 Inch BSp Fitted with 6 mm Connector and Integral **Sealing Ring.**



Digital Tritest 50

Code: 25-3518/01

Product Group: Digital Tritest 50 Load Frame, Load

Frames

- Microprocessor control
- Large on-board LED screen display
- Direct entry via a touch sensitive keyboard
- Rapid approach and return to datum of platen
- Fully variable speed, 0.00001 to 9.99999 mm/min
- Samples up to 100 mm diameter

This 50 kN capacity machine, designed primarily for triaxial testing of soil specimens up to 100 mm diameter x 200 mm long, comprises a rigid twin column construction with an integral fully variable microprocessor controlled drive unit and LCD display with a touch sensitive keyboard. The machine is normally bench mounted for ease of installation and operation.

The use of a microprocessor controlled drive system and keyboard entry provides the Digital Tritest 50 with a wide variety of features which include pause and speed reset during test, RS 232C, operator programming of speed and control functions, self test diagnostics and many other features.

A robustly constructed steel case houses the motor drive system with careful attention being given to the prevention of ingress of water or grit. All operating controls are mounted on the front panel of the machine, which is angled and recessed to prevent physical and environmental damage.

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Standards

BS 1377-7, BS 1377-8, BS 1924-2, ASTM D1883, ASTM D2166, ASTM D2850, ASTM D4767, ASTM D7181, AASHTO T99, AASHTO T134, AASHTO T135, AASHTO T136, AASHTO T180, AASHTO T193, AASHTO T208, AASHTO T296, AASHTO T297

Further Information

Complete with RS 232C interface.

Specification

Dimensions (l x w x h) 500 x 500 x 1470 mm

Max vertical clearance910 mmHorizontal clearance364 mmPlaten diameter133 mmPlaten travel100 mm

Platen speed range 0.00001 to 9.99999 mm/min

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Rapid approach speed 25 mm/minute

140 Weight kg

Capacity 12,200 lbf. (50 kN).

Speed Range English mode: 0.000001 to

0.399999 in/min.

Metric mode: 0.00001 to

9.99999 mm/min.

Rapid Approach Speed 2.0 in/min. (50 mm/min.).

3.9" (100 mm); limit switch Platen Travel

protection.

36 .8" (910 mm) maximum; 12 Vertical Clearance

" (305 mm) minimum.

Horizontal Clearance 15 .3" (364 mm).

Serial Interface RS232 C; programmable baud

rate and protocol.

Overall Dimensions 19.7" w. x 19.7" d. x 57.8" h.

(500 x 500 x 1,470 mm).

Net 220 lbs. (100 kg); Shpg. Weight

300 lbs. (136 kg).



Submersible Load Transducer Assembly 5kN Capacity In Compression.

Code: 27-1573

Product Group: Submersible Load Transducers, Load Measurement, Load Measurement

- •Eliminates effects of piston friction on readings
- •Unaffected by cell confining pressures
- •Easily installed in triaxial cell
- •Supplied complete with calibration certificate and 5-pin DIN type connector for use with GDU

Submersible Load Transducers are used to measure accurately the axial loads applied to triaxial test specimens. Consisting of a load cell and piston assembly these units replace the standard triaxial cell loading piston. A major advantage is that these transducers measure loads directly on top of the specimen. All transducers are supplied complete with a 5-pin DIN type connector and calibration certificate.

Specification

Dimensions 75 x 50 mm (dia x h) excluding

piston and adaptor

Overload capacity 150%

Output 26 mv full range

Excitation 10 V DC (15 V DC max)

Non-linearity 0.1% maximum

Hysteresis Deflection 0.1% maximum 0.05 mm at full

load

Side force 50% full scale maximum

without effect 5-pin DIN plug

0 to 50°C

Connector

Compensated temperature

range

Weight g

850

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Axial Strain Transducer Assembly 50mm Travel Fitted with 5 Pin Din Plug.

Code: 27-1617

Product Group: Axial Displacement, Axial Displacement, Displacement Transducers

0 to 50 mm range. For use with Triaxial Cells.
•Ideally suited for use with GDU for accurate displacement measurements

- •Models available for use in consolidation, shear, CBR and triaxial test applications
- •Supplied complete with mounting hardware for specified products

Displacement Transducers are used in consolidation, shear, CBR and triaxial test applications for accuratevdisplacement measurements. They are supplied complete with a 5-pin DIN type connector for direct connection to the GDU.

Specification

Construction Fully encapsulated electronics,

sealed in a stainless steel case

Excitation 10 V DC
Connector 5-pin DIN type

Mounting bracket Included as standard

Weight kg 0.45

Construction Fully encapsulated electronics,

sealed in a stainless steel

case.

Excitation 10vDC.

Connector 5-Pin DIN type.

Mounting Bracket Included as standard.

Weight Net 1 lb. (0.45 kg).

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Pressure Transducer Assembly 1700Kpa Fitted with 5 Pin Din Plug.

Code: 27-1633

Product Group: Pressure Transducer, Pressure Measurement, Tri-Flex 2 One-Cell Permeability Test System

Pressure Transducers are used to measure the cell, pore and back pressures during triaxial testing. Assemblies are supplied complete with a de-airing block, valve, 5-pin DIN plug connector and calibration certificate

Specification

Construction Stainless steel Excitation 10 V DC

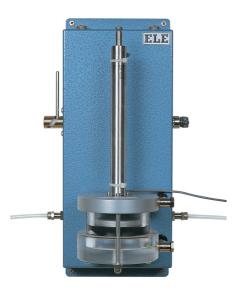
Output 143 mV full range ¼â₪ BSP Thread Stainless Steel. Construction

10vDC. Excitation Thread 1/4 BSP.

Construction Stainless Steel.

Excitation 10vDC. 1/4 BSP. Thread

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Volume Change Transducer Assembly 80Cm3 Capacity Maximum Working Pressure 1700Kpa

Code: 27-1641

Product Group: Volume Change Measurement, Volume Change Measurement, Volume Change Transducer, Tri-Flex 2 One-Cell Permeability Test System

- •Reversing valves to increase capacity
- •Steel case for wall mounting and access to piping
- •Supplied complete with calibration certificate

The Volume Change Transducer provides continuous measurements of volume change during the triaxial test. The assembly includes a valve to reverse the flow through the unit, providing increased capacity.

Specification

Overall dimensions (l x w x h) 178 x 229 x 368 mm

Maximum pressure 1700 kPa Excitation 10 V DC

Output 1.25 full range

Capacity 80 ml

Connector 5-pin DIN type

Weight kg 4.5

Maximum Pressure 250 psi (1,700 kPa).

Excitation 10vDC.

Output 1.25 Volts full range.
Capacity 80 cc x 0.1 cc sensitivity.
Case Steel; hinged for access to

piping.

Connector 5-Pin DIN type.

Overall Dimensions 9" w. x 7" d. x 14 -1/2" h. (22 9

x 178 x 368 mm).

Weight Net 10 lbs. (4.5 kg).

Maximum Pressure 250 psi (1,700 kPa).

Excitation 10vDC.

Output 1.25 Volts full range.
Capacity 80 cc x 0.1 cc sensitivity.
Case Steel; hinged for access to

piping.

Connector 5-Pin DIN type.

Overall Dimensions 9" w. x 7" d. x 14 -1/2" h. (22 9

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Weight

x 178 x 368 mm). Net 10 lbs. (4.5 kg).



Universal Pump and Pressure Indicating Panel 1700Kpa.

Code: 26-1880

Product Group: Modular Pressure Panel System

This is the main pressure display in the system for monitoring various pressures and also provides fine control of the pressure within the system using the rotary hand pump. The unit is fitted with a dual calibrated 250 mm diamter pressure gauge, four inlet/outlet no-volume change valves, screw controlled rotary hand pump, water reservoir and isolating valves. The unit is housed in a hinged case for wall or bench mounting. By using an isolating valve the panel may be used to monitor cell or back pressure. 1700 kPa and 250 lbf/in2.

Spares/Consumables



Pressure Gauge 1700Kpa (250Psi) 250mm Diameter.

Code: 26-1865/10



Pressure Test 1700 Oil/Water Constant Pressure System 0 to 1700Kpa 220-240V 50/60Hz 1Ph.

Code: 26-1800/01

Product Group: Oil/Water Constant Pressure System, Air/Water Pressure Systems - up to 1000 kPa

- 0 to 1700 kPa (250 lbf/in2) fully variable
- Continuous constant pressure control
- One litre capacity

The ELE oil/water constant pressure system , PressureTest 1700, is extemely versatile and can be used in conjunction of with a wide range of test equipment. The unit provides continuous variable pressure up to 1700 kPa. Pressure is increased or decreased simply by turning a control wheel.

The apparatus is supplied without a gauge for those customers who have suitable pressure monitoring equipment. A digital pressure gauge is offered as an accessory. The machine features a clear hydraulic/water interface reservoir and up to one litre capacity of water is available under pressure. • 0 to 1700 kPa (250 lbf/in²) fully variable.

Further Information

Dimensions (without gauge) 240 x 400 x 500 mm (I x w x h).

Spares/Consumables



Oil 5 Litres T46

Code: 26-1805

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De-Aired Water Apparatus 15 Litre Capacity

Code: 25-1833/01

Product Group: De-Aired Water

This compact self-contained unit will de-air water quickly and efficiently down to levels of dissolved oxygen acceptable for geotechnical test methods. Air is removed from the water by a vacuum system, which continuously circulates the water in the tank. The unit is supplied with a clear water container, which will hold a maximum of 15 litres of water. Input and output lines are formed using standard 6 mm tube connectors.



GDU 8 Channel Data Acquisition Unit 220-240 V 50/60 Hz, 1 Ph.

Code: 27-1500/01

Product Group: Automatic data acquisition, Automatic Data Acquisition, Automatic data acquisition, Automatic Data Acquisition, Data Logging with the GDU, Geotechnical Data Acquisition Unit (GDU)

The GDU is a stand-alone, multi-tasking, multi-channel data logger, that is reliable and powerful, enabling it to co-ordinate test data from the range of ELE transducers required for various test methods.

The ELE Geotechnical Software package (DS7.1), in conjunction with the GDU and a range of transducers, are the two central components required to create a modern turnkey soil testing system. Being fully modular it can be adapted to a wide range of soil testing laboratory configurations.

- For performing CBR, Consolidation, Direct/Residual Shear and Total & Effective Stress Triaxial tests
- 8 Channels expandable to 32 for performing multiple, concurrent tests for cost savings
- Independent signal conditioning on each channel to maintain data accuracy
- Field-upgradeable software, meaning no downtime for future software and functionality upgrades
- Extended warranty.

Specification

Case Aluminum, free standing;

houses power supply, analog to digital conversion module and an 8-channel analog input

module with transducer

energization.

Sockets Standard 5-pin DIN type.

Input Range \pm 5 volts to \pm 10 mV full scale.

Transducer Supply 10vDC.

Dimensions 12.8" w. x 14.3" d. x 6.1" h.

(325 x 363 x 155 mm).

Weight Net 14.08 lbs. (6.4 kg).

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DS7.2 Undrained Triaxial Shear Strength Program for Windows 7, 32/64 bit

Code: 27-1753

Product Group: DS7, DS7.2 Quick Undrained Triaxial Software, Automatic Data Acquisition

- Options for single or multi-stage testing on a sample
- Mohr circles produced for graphical analysis

Options are available for a single test on one sample, standard three-sample procedure with linking of the results, or for a multi-stage test on one sample. Load and strain are monitored through transducers. Various printouts and graphical plots are available including basic sample data, moisture content and density. The program tabulates shearing data and plots stress against strain. Mohr circles are produced for graphical analyses.



DS7.2 CU/CD Triaxial Shear Strength Program for Windows 7, 32/64 bit

Code: 27-1763

Product Group: DS7, DS7.2 CU/CD Effective Stress Triaxial Software

• Complete package for consolidated drained and consolidated undrained triaxial tests

This advanced package includes procedures for consolidated drained and consolidated undrained tests. Standard options are available for saturation. consolidation and shearing with automatic monitoring of the various parameters through transducers linked to the system. Load, strain, volume-change, pore-pressure, cell pressure and back pressure can all be monitored. Various prints and graphical plots are available to the engineer and include saturation data such as pore pressure build-up and B values, consolidation, volume change against time, shearing load versus strain with pore pressure monitoring.



50mm Triaxial Cell 1700Kpa with 5 Pressure/ Drainage Ports. Supplied with Two Valves.

Code: 25-4047

Product Group: Triaxial Cell, Triaxial Cells

- Working pressure up to 1700 kPa
- All round visibility
- Sample sizes 38 to 100 mm diameter
- · Rapid assembly and dismantling
- Accepts a range of interchangeable submersible load transducers

This range of precision made triaxial cells has been designed to meet the requirements of the modern soils laboratory. The cells have been treated to minimise corrosion. Particular attention has been paid to the quality of finish between the piston and the head. Final assembly includes the fitting of an O-ring seal and the use of special lubricant to reduce friction to a minimum and eliminate water leakage.

The piston load capacity is designed to accept high horizontal forces which may be present during the final stages of a test. Each cell has five take-off positions drilled in the base for top drainage/back pressure, pore water pressure and bottom drainage. Two no-volume change valves and an anvil for strain gauge/transducer datum are supplied for fitting to the cell.

A feature of these cells is that they all accept a single diameter piston. The internal height is such that a range of submersible load transducers can be fitted without any modification. Each cell will accept a range of base adaptors and various accessories for testing a wide range of specimens

Standards

BS 1377, ASTM D2850, ASTM D4767, AASHTO T296, AASHTO T297

Specification

Cell size 50 mm

Max specimen size 50 x 100 mm

Working pressure 1700 kPa

Max piston load 45 kN

Vertical clearance required 380 mm

Horizontal clearance required 155 mm

Weight kg 4

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38mm/1.5 Inch Base Adaptor for 50mm Cells.

Code: 25-4166

Product Group: Base Pedestals, Specimen Base

Adaptors

38mm/1.5 Inch Base Adaptor with Twin Pore Pressure Ports for 50mm Cells.

Standards

BS 1377, ASTM D2850, ASTM D4767, AASHTO T296, AASHTO T297



Valve No Volume Change 1/4 Inch BSp Fitted with 6 mm Connector and Integral Sealing Ring.

Code: 25-4520

Product Group: General Cell Accessories, Accessories for CU/CU effective stress

Standards

ASTM D2850, ASTM D4767, ASTM D7181, AASHTO T296, AASHTO T297