

















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

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De-Aired Water Apparatus 15 Litre Capacity

Code: 25-1833/01

Product Group: De-Aired Water

Complies to BS 1377-1

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.



Standards

BS 1377-1

Specification

Dimensions I x w x h (mm)

380 x 356 x 470

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Digital Tritest 50 Load Frame

Code: 25-3518/01

Product Group: Digital Tritest 50 Load Frame, CBR Load Frames, Triaxial 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.

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

Capacity 50kN (11,200 lbf).

Speed Range English mode: 0.000001 to

0.399999 in/min.

Metric mode: 0.00001 to 9.99999 mm/min.

Rapid Approach Speed 1.0 in/min. (25 mm/min.).

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Platen Travel 100mm (3.9"); limit switch

protection.

Platen Diameter 133 mm (5.2")

Vertical Clearance 910 mm, (36 .8") maximum; 305mm, (12") minimum.

Horizontal Clearance 364mm, (15.3").

Serial Interface RS232C; programmable baud

rate and protocol.

Overall Dimensions 500 x 500 x 1,470 mm, (19.7"

w. x 19.7" d. x 57.8" h).

Weight Net 100kg (220 lbs); Shpg.

136kg (300 lbs).

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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: Specimen Base Adaptors, Base

Pedestals

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





Piston Restraint Clamp for Ele Triaxial Cells

Code: 25-4200

Product Group: Aggressive Materials, General Cell

Accessories

For ELE Triaxial Cells Manufactured From July 1996.

Standards

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

Further Information

To lock the loading piston into position





Membrane Placing Tool 35mm/38mm.

Code: 25-4290

Product Group: Membrane Placing Tools, O-Ring

Placing Tools

Membrane Placing Tool For 35Mm/1.4 Inch And

38Mm/1.5 Inch Samples.

Standards

ASTM D2850, ASTM D4767, ASTM D5084, AASHTO T296, AASHTO T297, ASTM D7181

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

Code: 25-4520

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

Standards

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

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Pressure Pad 38mm/1.5 Inch Diameter.

Code: 25-5050

Product Group: Pressure Pads

38 mm / 1.5 Inch diameter pressure pad. The pad shall have two empty ports and will come complete with two blanking plugs, plastic tubing and connector. Suitable For both drained and undrained tests.

Standards

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

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Rubber Membrane 38mm/1.5 Inch Diameter. Pack of 10.

Code: 25-5061

Product Group: Rubber Membranes

Rubber Membrance For 38Mm/1.5 Inch Samples

(Pack Of 10).

Standards

AASHTO T296, AASHTO T297, ASTM D2850, ASTM D4767, ASTM D5084, ASTM D7181

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Membrane Sealing Ring 1.5"

Code: 25-5081

Product Group: Sealing Rings

Membrane Sealing Ring 38Mm Diameter (Pack Of

10).

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Suction Membrane Device 38mm/1.5 Inch Diameter.

Code: 25-5100

Product Group: Suction Membrane Devices, Suction

Membrane Device

Suction Membrane Device For 38Mm/1.5 Inch Samples.

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Two-Way Split Former 38mm/1.5 Inch Diameter.

Code: 25-5120

Product Group: Two-way Split Formers, Two-Way

Split Formers

Two-Way Split Former For 38Mm/1.5 Inch Samples.

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Porous Disc 38mm/1.5 inch Diameter. Pack of 2.

Code: 25-5181

Product Group: Accessories for CU/CU effective

stress, Porous Stones

Porous disc for 38 mm/1.5 inch samples (Pack of 2).

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Filter Paper Drain 38mm/1.5 inch Diameter. Pack of 50.

Code: 25-5200

Product Group: Accessories for CU/CU effective

stress, Filter Paper Drains

Filter paper drain 38 mm diameter (Pack of 50).







Bladder-Type Air/Water Pressure Assembly. 1000 Kpa Maximum Working Pressure.

Code: 26-1746

Product Group: Air/Water Pressure Systems - up to 1000 kPa

With transparent plastic chamber for operating continuously at pressures up to 1000 kPa. A length of tubing is provided for connecting the air/water cylinder outlet to a pressure measuring system.

- Used to supply hydraulic pressure from a pneumatic pressure source.
- Prevents air entering the hydraulic pressure system.
- Maximum working pressure 1000kpa.
- Supplied with connectors and tubing for fitting to pressure measuring systems.

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Pneumatic Pressure Reducing Panel. Provides Two Independent Pressure Outlets 1000 kPa Max.

Code: 26-1760

Product Group: Air/Water Pressure Systems - up to 1000 kPa

Comprising two constant pressure reducing valves with inlet water trap and pressure indicator. The unit allows a maximum output pressure of 1000 kPa. Maximum input pressure should not exceed 1400 kPa. The panel has an inlet connector to accept Nylon tubing from the air compressor and two 6 mm outlets for connecting Bladdertype Air/Water Pressure Assemblies. An outlet connector is fitted for the connection of an additional panel using Nylon tubing to increase the total capacity of the system. This outlet is blanked off when not required.





Nylon Tubing 30 Metre Length.

Code: 26-1769

Product Group: Air/Water Pressure Systems - up to

1000 kPa

30 metre length. For pressures up to 1700 kPa. Used for connecting Air Compressors to Pneumatic Pressure Reducing Panels, or for connecting two Pressure Reducing Panels together.

Further Information

Nylon tubing 30 metres with pressure fittings.





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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.

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Nylon Tubing 6mm Od 3500Kpa.

Code: 26-1926

Product Group: Permeability of Rock, Volume Change

Measurement

6 mm outside diameter x 4 mm inside diameter. For use up to a pressure of 3500 kPa. Priced per metre.







Distance Piece Stainless Steel for Use with Submerisble Load Cells and Axial Strain Transducers.

Code: 27-1293

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

Required when using submersible load cells.







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

Code: 27-1500/01

Product Group: Data Logging with the GDU, Geotechnical Data Acquisition Unit (GDU), Automatic Data Acquisition - Triaxial, Automatic Data Acquisition - Consolidation, Automatic Data Acquisition - Direct Shear, Automatic Data Acquisition - CBR

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 and following), 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
- PC link via RS232 (DS7.1 only), or RS232 and Ethernet P2P/LAN (with DS7.2 and following)
- 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 ± 5 volts to ± 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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Submersible Load Transducer Assembly 5kN Capacity In Compression.

Code: 27-1573

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

- •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

Compensated temperature

range

Connector

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 accurate displacement measurements. They are supplied complete with a 5-pin DIN type connector for direct connection to the GDU.

Specification

Construction

Excitation
Connector
Mounting bracket
Weight kg

Fully encapsulated electronics, sealed in a stainless steel case 10V DC

5-pin DIN type Included as standard

0.45







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

Code: 27-1633

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

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
Excitation
Output
Thread

Stainless Steel 10 V DC 143 mV full range 1⁄4" BSP







Volume Change Transducer Assembly 80ml Capacity Maximum Working Pressure 1700KPa

Code: 27-1641

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

- •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

Case

Maximum Pressure 250 psi (1,700 kPa).

Excitation 10V DC.

Output 1.25 Volts full range. Capacity 80 cc x 0.1 cc sensitivity.

Steel; hinged for access to

piping.

Connector 5-Pin DIN type. Overall Dimensions LXWXH

0.44 x 0.3 x 0.27 m

Weight Net 11 lbs. (5 kg).

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Air Compressor

Code: 83-1730/01

Product Group: Air Compressors, Air/Water Pressure

Systems - up to 1000 kPa

Further Information

NOT AVAILABLE FOR SALE IN THE USA

Specification

Dimensions (l x w x h) 483 x 457 x 864 mm

Free air delivery 2.0 cfm
Receiver capacity 50 litres
Maximum pressure 1000 kPa
Continuous working pressure 700 kPa

Electrical supply 220 – 240 V AC

1 ph 50 Hz

Water Trap No Weight 57 kg

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