

















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

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### 77-0115

**Digital Point Load Test Apparatus.** 







# Automatic Soils Compactor ASTM 220-240V 50Hz 1Ph.

Code: 24-9095/01 Product Group: Automatic Compactors, Automatic Soil Compactor

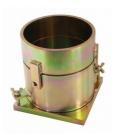
#### Standards

ASTM D558, ASTM D559, ASTM D560, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134, AASHTO T135, AASHTO T136, AASHTO T180, AASHTO T193

### Specification

Hammer	Circular faced, 2.0" (50.8 mm) dia. foot; selectable to either 5.5 lb.(2.5 kg) or 10 lb. (4.5 kg) weight.
Drop	Adjustable to either 12 " (305 mm) or 18" (45 7 mm)
Controls	Digital counter system, selector switch for either standard proctor test or modified proctor/CBR testing.
Dimensions	10" w. x 17" d. x 55 " h. (25 0 x 43 0 x 1,400 mm).
Weight	Net 41 9 lbs. (190 kg).

### Accessories



### **ASTM Compaction Mould 152mm.**

Code: 24-9066









### **Calibration Kit For Automatic Soil Compactor**

Code: 24-9095/12



Proctor Mould Code: 24-9060

### Spares/Consumables



Lead Cylinders

Code: 24-9095/13



### **Modified Compaction Mould**

Code: 24-9098



### **Standard Compaction Mould**

Code: 24-9097

### Alternatives









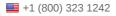
# Automatic Soil Compactor ASTM 110-120V 60Hz 1Ph

Code: 24-9095/02



Automatic Soils Compactor ASTM 220-240V 60Hz 1Ph.

Code: 24-9095/06





# BS Standard Compaction Mould 1000Cm Capacity.

Code: 24-9000

Product Group: BS/EN compaction test 2.5kg, Accessories for BS compaction and CBR

Plated steel standard compaction mould to BS 1377, comprising of a collar mould body and base plate with quick release wing nuts for easy dismantling.

### Standards

BS 1377-4, BS 1924-2

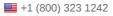
### Specification

Mould volume Dimensions Construction

Weight

1 litre 105 mm dia x 115.4 mm high All steel, threaded studs with wing nuts, plated. 5.5 kg

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### **BS Cbr Mould Body.**

Code: 24-9198 Product Group: BS EN CBR mould, Accessories for BS compaction and CBR

### Standards ASTM D1883, AASHTO T193

### Specification

Mould

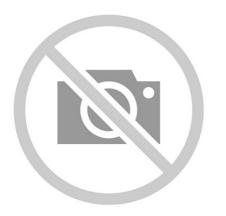
Collar

Base plate Construction Weight kg 152 x 127 mm (inside diameter x height) 51 mm height, fits both ends of mould Solid, fits both ends od mould All steel, plated 7.3









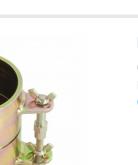
### **BS Extension Collar**

Code: 24-9200 Product Group: BS EN CBR mould accessories, Accessories for BS compaction and CBR

Standards EN 13286-4, BS 1377-4, BS 1924-2



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#### **Proctor Mould**

Code: 24-9060 Product Group: Accessories for ASTM and Proctor compaction, Proctor compaction

### Standards

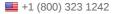
ASTM D558, ASTM D559, ASTM D560, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134, AASHTO T135, AASHTO T136, AASHTO T180

### Specification

Dimensions Rammer Mould Volume Construction

Weight

101.6 mm dia x 116.4 mm high 1/30 ft<sup>3</sup> All steel, threaded studs with wing nuts, plated. 5.4 kg





### **ASTM Compaction Mould 152mm.**

Code: 24-9066 Product Group: Accessories for ASTM and Proctor compaction, ASTM/Modified Proctor compaction

152mm inside diameter

Standards ASTM D698, ASTM D1557, AASHTO T99, AASHTO T180

#### Specification

Dimensions Rammer Mould Volume Construction

Weight

152.4 mm dia x 116.4 mm high 1/13.33 ft<sup>3</sup> All steel, threaded studs with wing nuts, plated. 8.2 kg





# Automatic Soil Compactor BS 220-240V 50Hz 1Ph.

Code: 24-9090/01 Product Group: Automatic Compactors

Preset blow pattern ensures an even compaction, includes solid state controls for reliability and maintenance. An automatic digital counter resets to zero on the completion of a test. An selectable rammer with a drop height of 300-450mm, a selectable rammer weight of 2.5 or 4-5kg. A preset number of blows per layer can be set by thumb wheel control. A compaction rate of approximately 26 blows per minute. Accepts BS Standard Compaction and CBR moulds; also meets the requirements of BS1377. Voltage 220-240V 50hz 1ph.

Standards BS 1377, EN 13286-2, EN 13286-47

#### Specification

Dimensions ( $I \times w \times h$ )	430 x 240 x 1400 mm
Rammer BS/EN	Circular faced, 50 mm dia,
	selectable
	to 2.5 kg or 4.5 kg weight.
Rammer ASTM	Circular faced, 2 in (50.8 mm)
	dia,
	selectable to 5.5 lb (2.5 kg) or
	10 lb
	(4.5 kg) weight.
Drop BS/EN	Adjustable to 300 mm or 450
	mm
Drop ASTM	Adjustable to 12 in (305 mm)
	or 18
	in (457 mm)
Weight kg	150
5 5	

### Accessories



**BS Cbr Mould Body.** 

Code: 24-9198







### **BS Extension Collar**

Code: 24-9200



### **BS Solid Base or Top Plate**

Code: 24-9204



### **BS Standard Compaction Mould 1000Cm Capacity.**

Code: 24-9000

### Alternatives



### Automatic Soil Compactor BS 220-240V 60Hz 1Ph.

Code: 24-9090/06





# Cbr-Test 50 Machine 50kN Capacity BS and ASTM Supplied with Stabilising Bar.

Code: 24-9150/01

Product Group: CBR Load Frames

- Single speed machine (BS/EN and ASTM)
- Rapid platen adjustment
- Complete with stabilising bar
- Compact, bench-mounting design
- Options for mechanical or electronic measurement

Designed for performing laboratory CBR tests to BS 1377, EN13286-47 and ASTM D1883, this bench mounting machine comprises a twin column frame incorporating a motorised drive system. Rapid adjustment of the platen is provided, which enables daylight to be taken up quickly and also close control of application of a seating load.

### Standards BS 1377, BS 1924, EN 13286-47, ASTM D1883, AASHTO T193

#### Specification

Dimensions (I x w x h)	550 x 400 x 1220 mm
Max vertical clearance	800 mm
Horizontal clearance	255 mm
Platen diameter	133 mm
Platen travel	105 mm
Weight kg	80

### Accessories



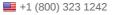
### **50kN Clamped Boss Load Ring**

Code: 78-0860



### 50kN S-type Load Cell

Code: 27-1559











## ASTM Cbr Mould Complete with Collar & Perferated Base

Code: 24-9228



BS Cbr Mould Body.

Code: 24-9198



**BS Extension Collar** Code: 24-9200



**BS Solid Base or Top Plate** Code: 24-9204



Cbr Penetration Piston (Adjustable).

Code: 24-9183









### **CBR Penetration Transducer 50mm Travel Fitted with 5 Pin** Din Plug.

Code: 27-1705



Clamped Boss Load Ring - 10.0 kN

Code: 78-0460



### Clamped Boss Load Ring - 2.0 kN

Code: 78-0060



### **Clamped Boss Load Ring - 28.0 kN** Code: 78-0760



## **Penetration Dial Gauge BS**

Code: 24-9186











### **Penetration Piston**

Code: 24-9182



Penetration/Swell Dial Gauge ASTM.

Code: 24-9184

### **Alternatives**



CBR-Test 50 Machine 50 kN Capacity BS and ASTM Supplied with Stabilising Bar.

Code: 24-9150/02



**Cbr-Test 50 Machine 50kN Capacity BS and ASTM Supplied** with Stabilising Bar.

Code: 24-9150/06



Cbr-Test 50 Machine 50kN Capacity BS and ASTM Supplied with Stabilising Bar.

Code: 24-9150/01











### **MultiPlex 50 Load Frame**

Code: 25-3700/01



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### DSU Electronic Readout and Control System 220 - 240 V AC 50/60 Hz

Code: 27-1300/01

Product Group: Data Logging with the DSU, Electronic Instrumentation, Electronic Instrumentation, Electronic Instrumentation, Data Logging with the DSU

 Download the full brochure here [/Page/catalogue-download/NTRmZS9UaGUgTkVXIE RTVSBVU0EucGRm]

· 4 channel automatic control and data-logging unit

· Automatic, dual-frame control

• Performs CBR, Marshall, Unconfined Compression, Direct and Residual Shear, One-Dimensional Consolidation and Unconsolidated Undrained tests

 $\cdot$  LAN connection - software can be running anywhere on your server

 $\cdot$  Never lose data from power fails - 2 gigabytes of non-volatile memory

· Extended warranty

The Data System Unit (DSU) is a versatile instrument designed to accomodate the general logging requirements of geotechnical and materials testing engineers. Its intelligent interface allows the user to work with a range of different sensors.

#### **Further Information**

The DSU has two distinct modes of operation. The first is referred to as DS mode (DataSystem) for operation with ELE International's established DS7 geotechnical testing software.

#### DS MODE

- Up to four one dimensional consolidation tests
- Up to two CBR tests
- One direct/residual shear test
- One triaxial quick un-drained test

#### DU MODE

- Up to two Marshall tests
- Up to two CBR tests
- Up to two Unconfined compression tests
- Automatic frame control

#### OVERVIEW

• Touch Screen data entry for standalone operation, Marshall/CBR/Quick un-drained





- Automatic single and dual frame control (with multiplex 50 frame)
- Log memory of 2 gigabytes
- Non-volatile memory
- Ethernet TCPIP link and serial comms support
- Market leading signal stability
- · Certificate and manual calibration features

Become a member of the ELE International web site, add this new product to a wishlist to receive a quote! Click here [/Login]

This product is now available in the USA and Canada!

### Accessories



Cable, Safety/ID Code: 27-1300/11



**Dual Frame Comms Cable** 

Code: 27-1300/10



PC Cable

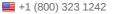
Code: 27-1300/12

#### **Alternatives**



DSU Electronic Readout and Control System 110 V AC 60 Hz

Code: 27-1300/02









**Marshall Test 50** 

Code: 45-6810/01



Marshall Test 50

Code: 45-6810/06



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### Consolidation Frame One Dimensional Consolidation Incremental Loading Device.

Code: 25-0402

Product Group: Consolidation Apparatus, Table Top Consolidation Apparatus

- High capacity 8800 kPa on 50 mm diameter specimens using 11:1 beam ratio
- Triple beam ratio, 9:1, 10:1, 11:1
- · Compact unit ensures maximum space saving

The ELE Oedometer is rigidly constructed to ensure minimum frame distortion. The frame is designed to load the specimen through a yoke assembly and one of three alternative beam ratios. The beam is fitted with a counterbalance weight and beam support jack. The cell platform will accept the complete range of ELE consolidation cells and is fitted with a central spigot to ensure accurate centring of the cell under the loading yoke. Dimensions without hanger 711 x 203 x 508 mm (l x w x h). Weight 22 kg.

#### Standards

ASTM D2435, ASTM D4546, AASHTO T216, ASTM D3877, BS 1377-5

### **Further Information**

Supplied without dial gauge and weights.

### Specification

Load Capacity	48 tons/sq. ft. (5,14 8 kPa) on 2.5" (63 mm) diam. samples.
Loading Beam	Cast aluminum; counterbalanced; 9:1,10:1 and 11 :1 ratios.
Frame	Cast aluminum; integral beam support jack; plated steel and platform.
Dimensions	203 x 711 x 508 mm, (8" w. x 28" d. x 20" h) . excluding weight hanger.
Weight	(Net 30 lbs). 13 .6 kg; Shpg. 40 lbs. (18.1 kg).

### Accessories











### **16 Ton Weight Set**

Code: 25-0544



### 2.416" Fixed Ring Consolidometer

Code: 25-0480



2.5" Floating Ring Consolidometer Code: 25-0530



### **Consolidation Cell Complete 2.5 Inch Diameter Sample.** Inc. Porous Discs and Cutting Ring.

Code: 25-0479



# **Consolidation Cell Complete 50mm Diameter Sample.**

Code: 25-0455



## **Consolidation Cell/ Oedometer Complete 75mm Diameter** Sample











### Floor Mounting Stand.

Code: 25-0429



#### **Mechanical Dial Indicator - 0.4" Range**

Code: 88-4070



# Mechanical Dial Indicator - 1.0" Range Counter Clockwise Movement

Code: 88-4120



Mechanical Dial Indicator - 10 mm Range Code: 88-4080



### Mechanical Dial Indicator - 25 mm Range Counter Clockwise Movement

Code: 88-4130



### Set of Weights 100Kg Total Weight.











Weight Set A

Code: 25-0535



Weight Set B

Code: 25-0537

### Spares/Consumables



Electronic Digital Indicator, 0.600"/15 mm range

Code: 88-4210

### Alternatives



### **Pneumatic Consolidation Apparatus**



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### Consolidation Cell Complete 2.5 Inch Diameter Sample. Inc. Porous Discs and Cutting Ring.

Code: 25-0479

Product Group: Table Top Consolidation Apparatus, ASTM/AASHTO consolidation cells and accessories, Pneumatic Consolidation Apparatus, Fixed Ring Consolidation

### Standards ASTM D2435, ASTM D4546, AASHTO T216, ASTM D3877

### Specification

Application	ASTM
Specimen Dia	2.5 inch
Specimen area	4.909 inch <sup>2</sup>
Beam ratio	10:1
Load kg	1.55
Stress	1000 lbf/ft <sup>2</sup>
Typical max stress	103 200 lbf/ft <sup>2</sup>
Stress for 1 kg m <sup>2</sup>	645 lbf/ft <sup>2</sup>

### Accessories



### 2.5" Floating Ring Consolidometer

Code: 25-0530



### **Calibration Disc 2.5 Inch Cell**

Code: 25-0485



# Consolidation Cell Complete 50mm Diameter Sample.





Consolidation Cell/ Oedometer Complete 75mm Diameter Sample

Code: 25-0503

### Spares/Consumables



2.5 Inch Dia Upper and Lower Porous Stones for Use on EL25-0479 Series Cell.

Code: 25-0479/13



### Cutting Ring for 25-0479

Code: 25-0482

### **Alternatives**



2.5" Floating Ring Consolidometer

Code: 25-0530



### **Calibration Disc 2.5 Inch Cell**

Code: 25-0485



# Consolidation Cell Complete 50mm Diameter Sample.









# Consolidation Cell/ Oedometer Complete 75mm Diameter Sample







## Vertical Dial Indicator, English

Code: 25-0445 Product Group: Direct/Residual Shear Apparatus 0.5" range x 0.0001" graduations.

### Accessories



Dial Gauge 10mm Travel X 0.002mm Divisions. Code: 25-0440

### Spares/Consumables



Electronic Digital Indicator, 0.600"/15 mm range Code: 88-4210

### Alternatives









## Electronic Digital Indicator, 0.600"/15 mm range

Code: 88-4210







### Set of Weights 100Kg Total Weight.

Code: 25-0408 Product Group: Consolidation Apparatus 9 x 10 kg, 1 x 5 kg, 2 x 2 kg, 1 x 1 kg.

Standards ASTM D2435, ASTM D4546, AASHTO T216, ASTM D3877, BS 1377-5



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### Digital Direct/Residual Shear Apparatus Complete with Lever Loading Assembly. 220-240V 50/60Hz 1Ph.

Code: 26-2114/01

Product Group: Direct/Residual Shear Apparatus, Direct/Residual Shear Apparatus

- Microprocessor control
- Large on-board LCD screen display
- Direct entry via touch sensitive keyboard
- Rapid approach and return to start datum
- Fully variable speed, 0.00001 to 9.99999 mm/minute
- Accepts specimens up to 100 mm square

The ELE Direct Shear Apparatus accepts specimens 60 mm, 100 mm square or 2.5 inches in diameter. The use of a microprocessor controlled drive system and keyboard entry gives the apparatus a wide range of features that include pause and speed reset during test, RS 232C interface, operator programming of speed and control functions, self test diagnostics and many other features. A return to start datum provides a positive means of reversing the shearbox when either preparing for a new test or continuing with residual testing procedures.

Safety forward/reverse travel limit switches are fitted as standard and monitored through the electronics system control.

The electronics are housed in a modern moulded shroud, which includes a large LCD display and keyboard entry. The apparatus is enclosed in a robustly constructed case, has been designed for floor mounting and is supplied complete with carriage, loading hanger and 10:1 lever loading device.

#### Standards

ASTM D3080, AASHTO T236, BS 1377, EN 1997-2

#### **Further Information**

for 220 - 240 V AC, 50 - 60 Hz, 1 ph.

### Specification

Sample Size

Speed Range

Accepts either 2.42 ", 2.5" diam.; 60 mm square samples using accessory shear box assemblies, not included. Variable in either English or Metric units





	between 0.000001" (0.00001 mm) to 0.399999" (9.99999 mm) per minute.
Shear Force	1,100 lbf. (5.0 kN) maximum.
Vertical Load	2,200 lbf. (10.0 kN) using 10:1 lever ratio.
Dimensions	44.7" l. x 12 .6" w. x 49.6" h. (1,135 x 320 x 1,260 mm).
Weight	Net 181 lbs. (82 kg).

### Accessories



Clamped Boss Load Ring - 2.0 kN

Code: 78-0060



### Clamped Boss Load Ring - 3.0 kN

Code: 78-0160



## Clamped Boss Load Ring - 4.5 kN

Code: 78-0260



Dial Gauge 10mm Travel X 0.002mm Divisions. Code: 25-0440







### Digital Proving Ring, 1,000 lbs (4.5 kN)

Code: 78-0264



Digital Proving Ring, 450 lbs (2.0 kN)

Code: 78-0064



Horizontal Displacement Transducer Assembly 15mm Travel 5 Pin Din Plug Mounting Pillar

Code: 27-1697



Mechanical Dial Indicator - 25 mm Range Clockwise Movement

Code: 88-4110



# S-Type Load Cell 5 kN.for Triaxial Tests. Fitted with 5 Pin Din Plug.

Code: 27-1551









### Set of Weights 50 kg Slotted.

Code: 26-2132



Shear Box Assembly 100mm Sq.

Code: 26-2197



**Shear Box Assembly 2.5 Inch Diameter** 

Code: 26-2213

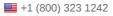


Shear Box Assembly 60mm Sq. Code: 26-2181



Vertical Displacement Transducer Assembly 15mm Travel with 5 Pin Din Plug Bracket for Shear Box

Code: 27-1689











Weight Set A

Code: 25-0535



Weight Set B

Code: 25-0537

#### Spares/Consumables



Dial Indicator - 1.0" Range

Code: 88-4100



Electronic Digital Indicator, 0.600"/15 mm range

Code: 88-4210



Vertical Dial Indicator, English

Code: 25-0445

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Alternatives









#### Digital Direct/Residual Shear Apparatus Complete with Lever Loading Assembly. 110-120V 50/60Hz 1Ph.

Code: 26-2114/02



H60 Field Inspection Vane Tester 0-200Kpa In Carrying Case. includes calibration and certificates.

Code: 26-3335



Hand Vane Tester Code: 26-3346

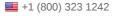


Laboratory Vane Apparatus with 4 Springs and 12.7mm Vane; Hand Operated.

Code: 26-2270



# Pocket Shearmeter with 3 Vanes 0 to 1Kgf/Cm2 X 0.5Kgf/Cm2.







## Dial Gauge 10mm Travel X 0.002mm Divisions.

Code: 25-0440

Product Group: Direct/Residual Shear Apparatus, Measurement of Horizontal and Vertical Movement, Vertical settlement measurement

#### Spares/Consumables

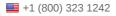


Electronic Digital Indicator, 0.600"/15 mm range Code: 88-4210



Vertical Dial Indicator, English

Code: 25-0445







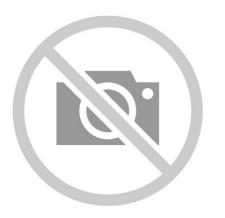
#### Specification

Diameter mm	57
Travel mm	10
Grad. Mm	0.01
Scale	RH
Anvil	Ball
Back type	А

#### **Dial Gauge**

Code: 83-5456 Product Group: Dial Gauges, Measurement of Horizontal and Vertical Movement





#### Set of Weights 50 kg Slotted.

Code: 26-2132 Product Group: Application of Normal Stress

Normal stress is applied to the specimen through the lever loading device and the appropriate slotted weights

#### Accessories



Slotted Surcharge Weight 0.25 kg

Code: 26-2147



Slotted Surcharge Weight 0.5 kg.

Code: 26-2145



#### Slotted Surcharge Weight 1 kg.









#### Slotted Surcharge Weight 10 kg.

Code: 26-2137



Slotted Surcharge Weight 2 kg.

Code: 26-2141



Slotted Surcharge Weight 5 kg.

Code: 26-2139

#### Alternatives



#### Slotted Surcharge Weight 0.25 kg

Code: 26-2147



#### Slotted Surcharge Weight 0.5 kg.









#### Slotted Surcharge Weight 1 kg.

Code: 26-2143



Slotted Surcharge Weight 10 kg.

Code: 26-2137



Slotted Surcharge Weight 2 kg.

Code: 26-2141



Slotted Surcharge Weight 5 kg.







#### **Shear Box Assembly 2.5 Inch Diameter**

Code: 26-2213

Product Group: Shear Box Assemblies, Shear Box Assemblies

•Manufactured from corrosion resistant materials •Sample size 2.5 inch dia x 1 inch height meeting ASTM D3080

•Incorporates PTFE faced box separation screws to reduce friction

•Supplied complete with upper and lower porous plates and loading pad

•Suitable for quick undrained or drained/residual tests.

#### Standards

ASTM D3080, AASHTO T236

#### **Further Information**

All shearbox assemblies are designed to fit the carriage of 26-2114 series Digital Direct/Residual Shear Apparatus. They are supplied complete with three porous plates, one retaining plate and a loading pad. The three sizes supplied comply with the relevant requirements of BS 1377 and ASTM D3080. All assemblies can be used for quick shear tests or drained/residual shear tests.

Optional accessories are available including specimen cutters and extrusion tools.

#### Specification

Specimen area Specimen thickness Weight kg Relevant standard 1.5 inch diameter 1 inch 2.8 ASTM D3080

#### Spares/Consumables



Code: 26-2213/10









#### Specimen Cutter 2.5 Inch Diameter.

Code: 26-2217



#### Specimen Extrusion Tool 2.5 Inch Diameter.



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## 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 - CBR, Automatic Data Acquisition -Triaxial, Automatic Data Acquisition - Consolidation, Automatic Data Acquisition - Direct Shear

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

Aluminum, free standing; houses power supply, analog to digital conversion module and an 8-channel analog input module with transducer

Standard 5-pin DIN type.

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

(325 x 363 x 155 mm). Net 14.08 lbs. (6.4 kg).

± 5 volts to ± 10 mV full scale.

energization.

10vDC.

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Case

Sockets Input Range Transducer Supply Dimensions

Weight

#### Accessories







#### 8-Channel Expansion Analog Input Module

Code: 27-1505



#### **USB to Serial Adapter**

Code: 27-1701

#### Alternatives



#### GDU 8 Channel Data Acquisition Unit 100-120 V 60 Hz

Code: 27-1500/02



#### RS232/USB Cable, GDU

Code: 27-1510









### 8-Channel Expansion Analog Input Module

Code: 27-1505 Product Group: Geotechnical Data Acquisition Unit (GDU)





NEL.



#### Ultrasonic Concrete Tester 110-240V 50/60Hz 1Ph

Code: 35-2302/09

Product Group: Ultrasonic Detection, Ultrasonic Concrete Test

35-2302/09 is the most versatile Concrete Tester to date. It has all the functions of the classic Concrete Tester, but offers additional benefits. Designed with laboratory use in mind, its compact size, rugged construction and optimized power consumption make it equally suitable for on-site use.

Along with the traditional transit time and pulse velocity measurement, 35-2302/09 offers path length measurement, perpendicular crack depth measurement and surface velocity measurement.

Optimized pulse shaping gives greater transmission range at lower voltage levels. This coupled with automated combination of the transmitter voltage and the receiver gain ensures an optimum received signal level, ensuring accurate and stable measurements.

The waveform can be viewed either via an external oscilloscope connection or directly on a connected PC screen.

Full remote control capability completes the package.

Complete with two 54 kHz transducers each with 3.6 metres of cable, coupling agent, carrying case and instruction manual.

Applications include pulse velocity determination, quality assessment and uniformity, modulus of elasticity measurement, curing status evaluation, crack depth estimation, assessment of fibre reinforced concrete.

Consists of display unit, 2 transducers (54 kHz), 2 BNC cables 1.5m, couplant, calibration rod, USB charger with USB-cable, 4x AA (LR6) batteries, data carrier with software, documentation and carrying case.

### Standards

BS 1881-203, EN 12504-4, ASTM C597, D2845

#### **Further Information**

For 110 - 240 V AC, 50 - 60 Hz, 1 ph.



www.ele.com +44 (0) 01525 249 200



#### Specification

Measuring range

Up to 15 m depending on concrete quality 20 to 500 kHz Ultrasonic pulse velocity 0.1 us 125 to 500 V 1x, 10x, 100x, auto Square wave 24-500 kHz 1

#### Spares/Consumables

#### **Ultrasound Couplant Supplied In 250ml bottle**

Code: 35-2305



NEL.



#### Dynamic Cone Penetrometer 8Kg Hammer (Trl Design).

Code: 29-3720 Product Group: In-situ Testing

The TRL (Transport Research Laboratory) Dynamic Cone Penetrometer (DCP) is used for rapid in-situ measurement of the structural properties of existing road pavement constructed with unbound materials. The unit incorporates an 8 kg weight with a drop of 575 mm, and a 20 mm diameter cone fitted to the end of the shaft, allowing measurements to be made down to a depth of approximately 850 mm.

Readings are usually taken after a set number of blows, changing the number according to the strength of the layer being penetrated. For good granular bases, readings every five to ten blows are satisfactory, but for weaker sub-base layers and subgrades, readings every one to two blows may be appropriate.

The DCP requires three operators, one to hold the instrument in a vertical position, one to raise the hammer and let it fall and one to record the results. A typical test takes only a few minutes, providing a very efficient method of obtaining information which would otherwise require the excavation of test pits. Where pavement layers have different strengths, boundaries can be identified and layer thickness determined.

#### **Further Information**

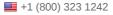
Supplied complete with all necessary tools, assembly and operating instructions.

#### Spares/Consumables



Spare Cone for Dynamic Cone Penetrometer.

Code: 29-3720/10









### Spare Cone for Dynamic Cone Penetrometer.

Code: 29-3720/10 Product Group: In-situ Testing





#### **MultiPlex 50 Load Frame**

Code: 25-3700/01

Product Group: Data Logging with the DSU, CBR Load Frames, Marshall Load Frames, Triaxial Load Frames, Data Logging with the DSU

Compact bench mounting load frame designed for performing laboratory CBR, unconfined compression, Quick Undrained Triaxial and Marshall Stability Tests. Has a variable speed of 0.5 to 50.8mm per minute and features rapid approach of platen.

#### Standards

EN 12697-34, BS 598, BS 1377, BS 1924, ASTM D1883, EN 12697-23, EN 12697-24, EN 13286-47, AASHTO T193, ASTM D2850, ASTM D4767, AASHTO T296, AASHTO T297, ASTM D6927

#### **Further Information**

\*\*NOT AVAILABLE FOR SALE IN THE USA\*\*

#### Specification

Dimensions (I x w x h)	550 x 400 x 1470 mm
Max vertical clearance	800 mm
Horizontal clearance	265 mm
Platen diameter	133 mm
Platen travel	100 mm
Platen speed range	0.5 to 50.8 mm/min
Rapid approach speed	40 mm/min
Weight kg	100, (shipping 113 kg)

#### **Accessories**



**50kN Clamped Boss Load Ring** 







50kN S-type Load Cell

Code: 27-1559



## Bracket and Adaptor. Dual Purpose Mounting Bracket for CBR Penetration Gauges EL24-9184/EL24-9186

Code: 24-9188



**Cbr Penetration Piston (Adjustable).** 

Code: 24-9183

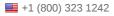


## CBR Penetration Transducer 50mm Travel Fitted with 5 Pin Din Plug.

Code: 27-1705



Clamped Boss Load Ring - 10.0 kN











#### Clamped Boss Load Ring - 2.0 kN

Code: 78-0060



#### Clamped Boss Load Ring - 28.0 kN

Code: 78-0760



Clamped Boss Load Ring - 3.0 kN Code: 78-0160



Clamped Boss Load Ring - 4.5 kN Code: 78-0260



Penetration Dial Gauge BS

Code: 24-9186



Penetration Piston Code: 24-9182







Penetration/Swell Dial Gauge ASTM.

Code: 24-9184

#### **Alternatives**



**Cbr-Test 50 Machine 50kN Capacity BS and ASTM Supplied** with Stabilising Bar.

Code: 24-9150/01



Cbr-Test 50 Machine 50kN Capacity BS and ASTM Supplied with Stabilising Bar.

Code: 24-9150/06



Digital Tritest 50 Load Frame

Code: 25-3518/01







#### Unconfined Compression Platens. for Use on Ele Load Frames Max Sample Dia 95mm.

Code: 25-3650 Product Group: N/A

#### Standards ASTM D2166, AASHTO T208, BS 1377, BS 1924, EN 13286-47, ASTM D1883, AASHTO T193





#### Clamped Boss Load Ring - 4.5 kN

Code: 78-0260 Product Group: Clamped Boss Load Rings, Digital Tritest 50 Load Frame, Load Measurement, Load Measurement, Direct/Residual Shear Apparatus, Proving Rings, Load Measurement

#### Specification

Capacity: kN, kgf, lbf Typical Design sensitivity: N/div, kgf/div, lbf/div	4.5, 450, 1000 3.0, 0.30, 0.66
Overall height mm	248
Approx weight kg	3.5
Capacity - Ibf	1,000
Capacity - kN	4.5
Capacity - kgf	450
Typical Design Sensitivity - lbf/div	0.66
Typical Design Sensitivity - kN/div	3
Typical Design Sensitivity - Kgf/div	0.3
Overall Height	9.76" (248 mm)
Approx Weight	7.7 lbs.(3.5 kg)

#### Accessories



#### **50kN Clamped Boss Load Ring**

Code: 78-0860



#### Clamped Boss Load Ring - 10.0 kN











#### Clamped Boss Load Ring - 2.0 kN

Code: 78-0060



#### Clamped Boss Load Ring - 28.0 kN

Code: 78-0760



Clamped Boss Load Ring - 3.0 kN Code: 78-0160



Digital Proving Ring, 1,000 lbs (4.5 kN) Code: 78-0264

#### Spares/Consumables



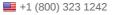
Spare Dial Indicator for Load Rings

Code: 78-5461

#### Alternatives



50kN Clamped Boss Load Ring









#### Clamped Boss Load Ring - 10.0 kN

Code: 78-0460



### Clamped Boss Load Ring - 2.0 kN

Code: 78-0060



#### Clamped Boss Load Ring - 28.0 kN Code: 78-0760



#### Clamped Boss Load Ring - 3.0 kN Code: 78-0160



### Digital Proving Ring, 1,000 lbs (4.5 kN)









#### **Two Part Split Mould 70mm**

Code: 25-6530 Product Group: Two-way Split Moulds, Two-Part Split Mould





#### Two-Way Split Former 70mm Diameter.

Code: 25-6500 Product Group: Two-way Split Formers, Two-Way Split Formers

70Mm Diameter Two-Way Split Former.

#### Accessories



1.4" Two-Way Split Formers

Code: 25-4320



2.8" Two-Way Split Formers

Code: 25-6680



**Two-Way Split Former 100mm Diameter.** 

Code: 25-7650

#### **Alternatives**









#### **1.4" Two-Way Split Formers**

Code: 25-4320



#### 2.8" Two-Way Split Formers

Code: 25-6680



#### Two-Way Split Former 100mm Diameter.

Code: 25-7650



TELE



## Vernier Caliper Range 0 to 200mm X 0.02mm.

Code: 81-0588

Product Group: Determination of the Shape Index, Linear Shrinkage, Miscellaneous Laboratory Hardware

Vernier callipers 200  $\times$  0.002mm. Graduated in mm and inches.

Gives four types of readings: inside, outside, depth and step. Dual reading scale (metric and inch) with 14° bevelled vernier scale for reduced parallax reading error and knurled locking nut. Manufactured from hardened stainless steel for rigidity. Satin finish.

Conforms to DIN 862.

Standards EN 933-4, BS 1377





#### **Digital Point Load Test Apparatus.**

Code: 77-0115

Product Group: Digital Point Load Tester, Point-Load Strength Test

Originally developed at Imperial College, London, the apparatus comprises a two-column fixed crosshead frame and a hand operated hydraulic jack.

Pressure applied by the jack extends the piston carrying the lower conical point. The upper point is fixed to the crosshead with a scale mounted on the frame to provide specimen diameter information for use in point load strength index calculations. Pressure is indicated directly on the digital readout unit. Loads up to 55 kN can be applied to specimens as large as 101.6 mm in diameter.

The apparatus is supplied complete with heavy-duty face mask.

#### Standards EN DD ENV 1997-2, ASTM D5731

#### Specification

Capacity Maximum sample size Load range Weight Capacity Specimen Size Load Range 55 kN 101.6 mm 0 to 55 kN x 0.001 kN 25 kg 13 ,000 lbf. (55 kN). 4" (101.6 mm) maximum. 0-13 ,000 lbf. (55 kN) x 0.2 lbf. (0.001 kN). Net 60 lbs. (27.2 kg).

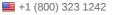
Weight

#### Spares/Consumables



Set of Cones for Digital Point Load Tester

Code: 77-0115/10



www.ele.com +44 (0) 01525 249 200



#### Alternatives



#### **Rock Classification Hammer**

Code: 77-0470

