







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

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This wishlist was generated on 26/10/2018, and contains the following Products:

### 78-0860

**50kN Clamped Boss Load Ring** 

### 78-0760

Clamped Boss Load Ring - 28.0 kN

#### 78-0460

**Clamped Boss Load Ring - 10.0 kN** 

#### 78-0060

Clamped Boss Load Ring - 2.0 kN

88-1084/02

**Ohaus Electronic Balance - 8,100 g Capacity** 

#### 88-1054/02

**Ohaus Electronic Balance - 3,100 g Capacity** 

88-1104/02

**Ohaus Electronic Balance - 35,000 g Capacity** 

88-1094/02 High Capacity Electronic Balance

### 29-3739 Proving Ring Penetrometer

29-3729 Pocket Penetrometer.

29-3741 C.O.E Cone Penetrometer

### 24-0461 Casagrande Grooving Tool Aashto

### 24-0441/02

Motorized Liquid Limit Device

### 24-0435/12

**ASTM Slider and Pin Cup Holder Assembly** 



24-0435/10 Brass Cup

2800E Liquid Limit Set

24-0451 ASTM Plastic Grooving Tools

24-0546 Test Gauge for Checking Condition of Cone Point.

24-0544 Penetration Test Cone

24-0540 Cone Penetrometer. Complete with Stainless Steel Test Cone.

24-0548 **Penetration Test Cup.** 

24-0545/01 Semi-Automatic Cone Penetrometer

2810E Plastic Limit Set

24-0810 Plastic Limit Plate 12 x 12

24-0811 Rod Comparator

24-1500 **Prong Plate.** 

24-1550 Shrinkage Dish.

2820E Shrinkage Limit Set

24-4867/02 Hydrometer Jar Bath 110vAC

### 24-4132/02

**Mechanical Analysis Stirrer 120vAC** 

### 24-4132/11

Mixing Paddle

### 24-4132/10

**Soil Dispersion Cup** 

#### 24-4640

Soil Hydrometer Type 152H ASTM/Aashto Graduated -5 to + 60G/Litre.

### 24-4650

Soil Hydrometer Type 151H ASTM D422 Graduated 0.995 to 1.038 Specific Gravity.

### 24-4145

Sodium Hexametaphosphate 500G.

2824/02 Particle Size Analysis Test Set

4699-0881 Solid Rubber Stopper

### 24-4700 Hydrometer Sedimentation Cylinder

24-4800

Nomographic Chart for The Determination of Stokes Law.

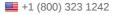
### 24-4917 Sand Equivalent Test Set

24-4936 Stock Solution 8 oz.

# 24-4949/02

Sand Equivalent Shaker

24-4917/10 Sand Equivalent Cylinder



#### 23-7600

Speedy Calibration Unit Self Contained Unit.

#### 23-7452

Speedy Moisture Tester D2 Large 0-20% Moisture Range. Supplied Less Calcium Carbide

#### 23-7502

Speedy Moisture Tester D2 Small 0-20% Moisture Range. Supplied Less Calcium Carbide

### 23-7462

Speedy Moisture Tester G2 Large 0-50% Moisture Range. Supplied Less Calcium Carbide

#### 23-7702

Reagent for Speedy Moisture Testers. Pack of 12 Cans 500 G Each. (Calcium Carbide)

#### 23-7452/12

**Portable Electronic Balance** 

24-8085/01

Automatic Soils Compactor with guarding ASTM 220-240V 50Hz 1Ph

24-9066 ASTM Compaction Mould 152mm.

#### 24-9095/12

**Calibration Kit For Automatic Soil Compactor** 

24-9060 Proctor Mould

24-9095/13 Lead Cylinders

24-9098 Modified Compaction Mould

# 24-9097 Standard Compaction Mould

24-8085/06 Automatic Soils Compactor with guarding ASTM 220-240V 60Hz 1 ph

+44 (0)1525 249 200

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### 2310/01

**Basic Laboratory Compaction Set, Motorized** 

2300E

**Basic Laboratory Compaction Set, Hand-Operated** 

### 23-4085 Sample Ejector

#### 23-4085/10

2.5" Ejector Head and Adapter Plate

#### 23-4085/12

2" Ejector Head and Adapter Plate

### 23-4085/13

**3" Ejector Head and Adapter Plate** 

24-9177 CBR Test Accessory Set Metric

27-1125/02 CBR Test Digital Readout (Metric)

### 27-1126/02 CBR Data Logging Test Set

### 25-3518/01 Digital Tritest 50 Load Frame

25-3700/01 MultiPlex 50 Load Frame

### 25-0429 Floor Mounting Stand.

#### 25-0408

Set of Weights 100Kg Total Weight.

### 25-0402

Consolidation Frame One Dimensional Consolidation Incremental Loading Device.





### 25-0544

**16 Ton Weight Set** 

### 25-0480

2.416" Fixed Ring Consolidometer

### 25-0480/13

Upper and Lower Porous Stones, 2.416"

### 25-0530

2.5" Floating Ring Consolidometer

### 25-0479

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

### 25-0455

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

#### 25-0503

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

### 25-0503/13

75mm Dia Upper and Lower Porous Stones for Use on EL25-0503 Series Cell.

### 25-0506

Cutting Ring 75mm Cell.

### 88-4080

**Mechanical Dial Indicator - 10 mm Range** 

### 88-4210

Electronic Digital Indicator, 0.600"/15 mm range

### 25-0560

**Pneumatic Consolidation Apparatus** 

### 23-3505

Mortar and Pestle Porcelain.

# 23-3500

**Rubber Headed Pestle.** 

### 23-3425





Large Capacity Sample Splitter.

#### 23-3200

**Riffle Box 38mm Slot Width Complete with Three Containers.** 

#### 36-3090/01

ADR Touch 2000 Semi-Automatic Compression Machine with Digital Readout.

#### 37-6138

100kN Flexural Fitting Kit (ADR) Used for Connecting Flexural Frames to ADR Compression Machines.

#### 37-5100

Standard Distance Piece - 100 mm Depth

37-5000

Standard Distance Piece - 50 mm Depth

### 37-4980

Standard Distance Piece - 20 mm Depth

29-3925

**Proctor Penetrometer Spring Type with Adaptor Stem.** 

29-3933 Case for Proctor Penetrometer.

#### 29-4340

Density Plate for EL29-4300.

82-7401 Standard Sand - 600/300 μm

29-4300 6 Inch (152mm) Sand Cone.

### 29-4320 5 Litre Plastic Container for Sand Cone

29-5080 Metal Dibber Tool

29-5120 Density Hand Pick.

+44 (0)1525 249 200



# 29-5140

**Steel Pointed Rod.** 

29-5000 **Density Spoon.** 

29-5060 Density Chisel.

29-5020 Soft Headed Mallet.

26-2261

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

26-2261/14 High-Capacity Vane

26-2261/10 Sensitive Vane

26-2261/12 Standard Vane

26-3346 Hand Vane Tester

### 26-2114/02

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

### 26-3335

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

26-2270

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

### 26-2275/10

Set of 4 Calibrated Springs for Laboratory Vane Apparatus.

#### 25-0650

**Guelph Permeameter Supplied Complete with Extension Kit.** 



### 42-5310/06

Los Angeles Abrasion Machine with CE Safety Cabinet W/ Microswitches. 220-240V 60Hz 1Ph.

#### 42-5300/10

Set of 12 Abrasive Charges (ASTM).

# 42-2958

**Sulphate Test Strips** 

### 34-2830

**Bulk Density Measure 10 Litre** 

### 42-1995

**Bulk Density Measure 3 Litre.** 

### 42-1005

Wire Basket Brass with Handle Nominal 6000Cm<sup>3</sup> Capacity with 1.7mm Wire Mesh.

### 42-1000/01

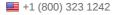
**Buoyancy Balance 6Kg X 0.1G. Supplied with Support Frame Water Tank & Suspension Hook.** 

42-1700 Sand Absorption Cone.

### 42-1720 Tamping Rod.

78-1235/01 **150 Litre Drying Oven** 

2824/01 Particle Size Analysis Test Set







# **50kN Clamped Boss Load Ring**

Code: 78-0860

Product Group: Clamped Boss Load Rings, Digital Tritest 50 Load Frame, Load Measurement, Proving Rings, Accessories for the Marshall test, Accessories for the Marshall Test, CBR-Test 50 Machine, Load Measurement, CBR Loading Press, Hand-Operated, Force measurement

Calibrated in compression.

### **Standards** EN 12697-34

### Specification

Capacity - kN	50
Capacity - kgf	5000
Capacity - Ibf	11,200
Typical Design Sensitivity - kN/div	45.5
Typical Design Sensitivity - Kgf/div	4.54
Typical Design Sensitivity - Ibf/div	10.18
Overall Height Approx Weight	9.76" (248 mm) 6.35 kg

### **Accessories**

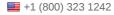


### **Clamped Boss Load Ring - 10.0 kN**

Code: 78-0460



### **Clamped Boss Load Ring - 2.0 kN**









### 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



Digital Proving Ring, 11,200 lbs (50.0 kN) Code: 78-0864

# Spares/Consumables



Spare Dial Indicator for Load Rings

Code: 78-5461

# Alternatives



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



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



# Digital Proving Ring, 11,200 lbs (50.0 kN)







# Clamped Boss Load Ring - 28.0 kN

Code: 78-0760

Product Group: Clamped Boss Load Rings, Digital Tritest 50 Load Frame, Load Measurement, Proving Rings, CBR-Test 50 Machine, Conversion of In-situ to Laboratory CBR, Load Measurement, CBR Loading Press, Hand-Operated, Force measurement

### Standards BS 1377, BS 1924

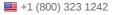
### Specification

Capacity: kN, kgf, lbf Typical Design sensitivity: N/div, kgf/div, lbf/div	28.0, 2800, 6000 25.5, 2.54, 5.45
Overall height mm	248
Approx weight kg	5.4
Capacity	28 kN
Value of CBR	Average range of CBR
Capacity - lbf	6,000
Capacity - kN	28
Capacity - kgf	2,800
Typical Design Sensitivity - lbf/div	5.45
Typical Design Sensitivity - kN/div	25.5
Typical Design Sensitivity - Kgf/div	2.54
Overall Height	9.76" (248 mm)
Approx Weight	11 .9 lbs.(5.4 kg)

### Accessories



# **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 - 3.0 kN Code: 78-0160



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



Digital Proving Ring, 6,000 lbs (28.0 kN)

Code: 78-0764

### Spares/Consumables



**Spare Dial Indicator for Load Rings** 

Code: 78-5461

### Alternatives









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

Code: 78-0860



# Clamped Boss Load Ring - 10.0 kN

Code: 78-0460



# 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



### Digital Proving Ring, 6,000 lbs (28.0 kN)







# Clamped Boss Load Ring - 10.0 kN

Code: 78-0460 Product Group: Clamped Boss Load Rings, Digital Tritest 50 Load Frame, Proving Rings, Force measurement

### Specification

Capacity: kN, kgf, lbf Typical Design sensitivity: N/div, kgf/div, lbf/div	10.0, 1000, 2250 7.7, 0.77, 1.73
Overall height mm	248
Approx weight kg	4.6
Capacity	10 kN
Value of CBR	8% to 40%
Capacity - Ibf	2,250
Capacity - kN	10
Capacity - kgf	1,000
Typical Design Sensitivity - lbf/div	1.73
Typical Design Sensitivity - kN/div	7.7
Typical Design Sensitivity - Kgf/div	0.77
Overall Height	9.76" (248 mm)
Approx Weight	10.1 lbs.(4.6 kg)

### Accessories



# **50kN Clamped Boss Load Ring**

Code: 78-0860



# Clamped Boss Load Ring - 2.0 kN









# 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

### Spares/Consumables



Spare Dial Indicator for Load Rings Code: 78-5461

# Alternatives



# 50kN Clamped Boss Load Ring

Code: 78-0860



# Clamped Boss Load Ring - 2.0 kN









# 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







# Clamped Boss Load Ring - 2.0 kN

Code: 78-0060 Product Group: Clamped Boss Load Rings, Digital Tritest 50 Load Frame, Proving Rings, Force measurement, Measurement of Load (Shear Stress), Direct/Residual Shear Apparatus

## Standards

BS 1377, ASTM D3080

### Specification

2.0, 200, 450 1.3, 0.13, 0.30
248
3.2
450
2
200
0.3
1.3
0.13
9.76" (248 mm)
7 lbs. (3.2 kg)

### Accessories



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

Code: 78-0860



### **Clamped Boss Load Ring - 10.0 kN**





# 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



# Digital Proving Ring, 450 lbs (2.0 kN) Code: 78-0064

# Spares/Consumables



# **Spare Dial Indicator for Load Rings**

Code: 78-5461

### Alternatives









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

Code: 78-0860



### Clamped Boss Load Ring - 10.0 kN

Code: 78-0460



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



### Digital Proving Ring, 450 lbs (2.0 kN)







# Ohaus Electronic Balance - 8,100 g Capacity

Code: 88-1084/02 Product Group: Ohaus Series Electronic Balances Includes weigh-below hook.

### **Further Information**

100-240V, 50/60 Hz.

### Specification

Maximum Capacity	8100 g
Readability	0.1 g
Repeatability (Std. Dev.)	0.1 g
Linearity	+/-0.2g
Internal Calibration	NO
Pan Size (in/cm)	5.8 x 6.3 /
	14 .9 x 16.2
Dimensions w x h x d (in/cm)	7.5 x 2.8 x 10 /
	19.3 x 7.2
	x 25 .4
Shipping Wt. (lb/kg)	9.5 / 4.3

### Alternatives



## **High Capacity Electronic Balance**

Code: 88-1094/02



## **Ohaus Electronic Balance - 1520 g Capacity**

Code: 88-1034/02









# **Ohaus Electronic Balance - 2,100 g Capacity**

Code: 88-1220/02A



**Ohaus Electronic Balance - 2,200 g Capacity** 

Code: 88-1044/02



Ohaus Electronic Balance - 210 g Capacity Code: 88-1200/02A



Ohaus Electronic Balance - 24,000 g Capacity Code: 88-1098/02



Ohaus Electronic Balance - 3,100 g Capacity Code: 88-1054/02



Ohaus Electronic Balance - 310 g Capacity Code: 88-1024/02



Ohaus Electronic Balance - 35,000 g Capacity Code: 88-1104/02





**Ohaus Electronic Balance - 6,000 g Capacity** 

Code: 88-1074/02



Ohaus Electronic Balance - 8,100 g Capacity Code: 88-1230/02A



**Ohaus Electronic Balance - 810 g Capacity** 

Code: 88-1210/02A







# Ohaus Electronic Balance - 3,100 g Capacity

Code: 88-1054/02 Product Group: Ohaus Series Electronic Balances

### **Further Information**

100-240V, 50/60 Hz.

### Specification

Maximum Capacity	3100 g
Readability	0.01 g
Repeatability (Std. Dev.)	0.01 g
Linearity	+/-0.02g
Internal Calibration	NO
Pan Size (in/cm)	7.9 / 18
Dimensions w x h x d (in/cm)	7.7 x 3.6 x 12 .6
	in / 19.6 x 9.2 x
	32 cm
Shipping Wt. (lb/kg)	11 .8 lb /
	5.4 kg

### Alternatives



## **High Capacity Electronic Balance**

Code: 88-1094/02



# **Ohaus Electronic Balance - 1520 g Capacity**

Code: 88-1034/02









# **Ohaus Electronic Balance - 2,100 g Capacity**

Code: 88-1220/02A



**Ohaus Electronic Balance - 2,200 g Capacity** 

Code: 88-1044/02



**Ohaus Electronic Balance - 210 g Capacity** Code: 88-1200/02A



Ohaus Electronic Balance - 24,000 g Capacity Code: 88-1098/02



Ohaus Electronic Balance - 310 g Capacity Code: 88-1024/02



Ohaus Electronic Balance - 35,000 g Capacity Code: 88-1104/02



Ohaus Electronic Balance - 6,000 g Capacity Code: 88-1074/02







**Ohaus Electronic Balance - 8,100 g Capacity** 

Code: 88-1084/02



Ohaus Electronic Balance - 8,100 g Capacity

Code: 88-1230/02A



### **Ohaus Electronic Balance - 810 g Capacity**

Code: 88-1210/02A







## Ohaus Electronic Balance - 35,000 g Capacity

Code: 88-1104/02 Product Group: Ohaus Series Electronic Balances

### **Further Information**

100-240V, 50/60 Hz.

### Specification

Maximum Capacity Readability Internal Calibration Pan Size (in/cm) Dimensions w x h x d (in/cm)

Shipping Wt. (lb/kg)

35000 g 0.5 g NO 11.0 x 14.9 in / 28.0 x 37.7 cm 14.9 x 18.4 x 5.0 in / 37 x 46.7 x 12.8 cm 24 lb / 10.6 kg

### **Alternatives**



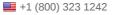
### **High Capacity Electronic Balance**

Code: 88-1094/02



### **Ohaus Electronic Balance - 1520 g Capacity**

Code: 88-1034/02









# **Ohaus Electronic Balance - 2,100 g Capacity**

Code: 88-1220/02A



**Ohaus Electronic Balance - 2,200 g Capacity** 

Code: 88-1044/02



**Ohaus Electronic Balance - 210 g Capacity** Code: 88-1200/02A



Ohaus Electronic Balance - 24,000 g Capacity Code: 88-1098/02



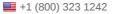
Ohaus Electronic Balance - 3,100 g Capacity Code: 88-1054/02



Ohaus Electronic Balance - 310 g Capacity Code: 88-1024/02



Ohaus Electronic Balance - 6,000 g Capacity Code: 88-1074/02







**Ohaus Electronic Balance - 8,100 g Capacity** 

Code: 88-1084/02



Ohaus Electronic Balance - 8,100 g Capacity

Code: 88-1230/02A



**Ohaus Electronic Balance - 810 g Capacity** 

Code: 88-1210/02A







# **High Capacity Electronic Balance**

Code: 88-1094/02 Product Group: Specific Gravity (Rice) Test with 2,000 gram Vacuum Pyknometer, Specific Gravity (Rice) Test with 6,000 gram Vacuum Pyknometer, Ohaus Series Electronic Balances

### **Further Information**

15,000 gram capacity x 0.05 grams, 100-240V 50/60 Hz

### Specification

Maximum Capacity	15000 g
Readability	0.05 g
Repeatability (Std. Dev.)	0.1 g
Linearity	+/-0.15 g
Internal Calibration	NO
Pan Size (in/cm)	9.5 x 13 .8 in / 24 0 x 35 0 cm
Dimensions w $x h x d$ (in/cm)	14 .2 x 14 .6 x 4.5
	in / 36 x 37
	x 11 .5 cm
Shipping Wt. (lb/kg)	24 lb / 10.6
	kg

### Alternatives

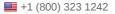


**Ohaus Electronic Balance - 1520 g Capacity** 

Code: 88-1034/02



Ohaus Electronic Balance - 2,100 g Capacity Code: 88-1220/02A









# **Ohaus Electronic Balance - 2,200 g Capacity**

Code: 88-1044/02



**Ohaus Electronic Balance - 210 g Capacity** 

Code: 88-1200/02A



Ohaus Electronic Balance - 24,000 g Capacity Code: 88-1098/02



Ohaus Electronic Balance - 3,100 g Capacity Code: 88-1054/02



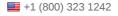
Ohaus Electronic Balance - 310 g Capacity Code: 88-1024/02



Ohaus Electronic Balance - 35,000 g Capacity Code: 88-1104/02



Ohaus Electronic Balance - 6,000 g Capacity Code: 88-1074/02







**Ohaus Electronic Balance - 8,100 g Capacity** 

Code: 88-1084/02



Ohaus Electronic Balance - 8,100 g Capacity

Code: 88-1230/02A



**Ohaus Electronic Balance - 810 g Capacity** 

Code: 88-1210/02A







### **Proving Ring Penetrometer**

Code: 29-3739 Product Group: Proving Ring Penetrometer

# Further Information 250 psi capacity

### Specification

Proving Ring Dial Indicator Shaft

Extension Rod

Cone

Handle Weight

### Alternatives



### **C.O.E Cone Penetrometer**

250 lb. (1.1 kN) capacity.

3/4" (19 mm) diam. x 18" l. (45 7 mm); graduated at 6" (152

(914 mm); graduated at 6" (152

3/4" (19 mm) diam. x 36" l.

Brake type.

mm) intervals.

mm) intervals.

replaceable. Cast aluminum.

30 degree; 1 sq. in.;

Net 12 lbs. (5.4 kg).

Code: 29-3741



### **Pocket Penetrometer.**

Code: 29-3729



### **Proctor & Mortar Penetrometer Set**

Code: 29-3935







#### **Pocket Penetrometer.**

Code: 29-3729

Product Group: In-situ Testing, Pocket Penetrometer, Plate Bearing Apparatus

- Direct-reading scale in tons/sq. ft. and kg/sq. cm.
- Ground and polished stainless steel loading piston.
- Calibrated spring and penetrometer body plated for rust resistance and long life.
- Convenient belt-loop style carrying case.
- Optional Adapter Foot for testing very soft materials.

The Pocket Penetrometer was originally developed for use by field personnel in checking visual classification of soils. Data was compiled on several thousand unconfined compressive strength tests of silty clays and clayey soils against the penetrometer readings to develop the scale.

### **Further Information**

IMPORTANT: the readings obtained from the pocket penetrometer do not replace laboratory test results due to the fact that a small area penetration test is inherently liable to give misleading results. The instrument should not be used for obtaining foundation design data.

#### Specification

Range

Scale Divisions Load Piston

Carrying Case Dimensions

Weight

0.25 to 4.5 tons/sq. ft. (kg/sq. cm). 0.25 tons/sq. ft. (kg/sq. cm). 1/4" (6 mm) diam.; stainless steel. Canvas; belt-loop style. 3/4" diam. x 6-3/8" l. (19 x 162 mm). Net 7 oz. (198 g).

### Accessories



Adaptor Foot

Code: 29-3729/10

### Alternatives







### **C.O.E Cone Penetrometer**

Code: 29-3741



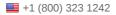
### **Proctor & Mortar Penetrometer Set**

Code: 29-3935



### **Proving Ring Penetrometer**

Code: 29-3739







#### **C.O.E Cone Penetrometer**

Code: 29-3741

(psi).

150 lb. capacity; dial indicator calibrated direct in psi,

Product Group: C.O.E Cone Penetrometer

Reads directly in ponds per square inch

• Manufactured in accordance with Corps of Engineers specifications.

The C.O.E. Cone Penetrometer is the principal instrument used in evaluating soil trafficability. It consists of a 30 degree cone with a 1/2 sq. in. base area, proving ring, dial indicator, extension rod and a handle.

#### **Further Information**

300 psi capacity

### Specification

Proving Ring

0 to 300 psi by 5 psi<br/>subdivisions.Shaft5/8" (15 .8 mm) diam. x 19" l.<br/>(483 mm).Cone30 degree; 1/2 sq. in.;<br/>replaceable.WeightNet 5 lbs. (2.4 kg).

### **Alternatives**



#### **Pocket Penetrometer.**

Code: 29-3729



#### **Proctor & Mortar Penetrometer Set**

Code: 29-3935









### **Proving Ring Penetrometer**

Code: 29-3739







### **Casagrande Grooving Tool Aashto**

Code: 24-0461 Product Group: Casagrand

Product Group: Casagrande Method, Motorized Liquid Limit Device, AASHTO Grooving Tool

- Rust resistant brass construction.
- 1 cm gage block located at end of handle.

The AASHTO Grooving Tool is used to control the width of the soil groove in the liquid limit cup, in accordance with AASHTO specifications.

### Standards AASHTO T89

### **Further Information**

Brass construction with a gauge height of 1 cm.

### Specification

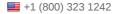
Construction Gauge Height Weight

Brass. 1 cm. Net 3 oz. (85 g).

#### Spares/Consumables



#### **ASTM Plastic Grooving Tools**







### **Motorized Liquid Limit Device**

Code: 24-0441/02 Product Group: Motorized Liquid Limit Device

### Standards ASTM D4318, AASHTO T89

# Further Information

110vAC, 60 Hz, 1ø.

#### Specification

Counter

Cup

Base Cam Dimensions

Weight

cup drops. Spun brass; pin and slot mounting. Molded hard rubber. Molded, self-lubricating plastic. 8-1/2â00 w. x 15 â00 d. x 7-1/2â00 h. (21 6 x 381 x 191 mm). Net 14 -1/2 lbs. (6.6 kg).

Mechanical; records number of

### Accessories



**Casagrande Grooving Tool Aashto** 

Code: 24-0461

### **Spares/Consumables**









# **ASTM Plastic Grooving Tools**

**ASTM Slider and Pin Cup Holder Assembly** 

Code: 24-0451



Code: 24-0435/12



Brass Cup Code: 24-0435/10

### Alternatives



Liquid Limit Device Code: 24-0435



Liquid Limit Device with counter Code: 24-0437







## ASTM Slider and Pin Cup Holder Assembly

Code: 24-0435/12 Product Group: Hand-Operated Liquid Limit Devices, Motorized Liquid Limit Device

Standards ASTM D4318, AASHTO T89







## **Brass Cup**

Code: 24-0435/10 Product Group: Hand-Operated Liquid Limit Devices, Motorized Liquid Limit Device

With mounting holes.

Standards ASTM D4318, AASHTO T89







### **Liquid Limit Set**

Code: 2800E Product Group: ASTM Liquid Limit Set

Set includes:

- Set includes:
  1 Liquid Limit Device with ASTM Grooving Tools (24-0435).
  1 Graduated Cylinder 100 ml (88-6007).
  1 Mixing Dish (88-6712).
  2 Doz. Moisture Content Cans (88-7002).
  1 Elevible Spectrue (88, 7500).

- 1 Flexible Spatula (88-7500).

Standards **ASTM D4318** 







### **ASTM Plastic Grooving Tools**

Code: 24-0451

Product Group: ASTM Plastic Grooving Tools, Hand-Operated Liquid Limit Devices, Motorized Liquid Limit Device

- Inexpensive enough to be disposable.
- Plastic construction -- won't rust.
- Precision-moulded to conform to ASTM standards.
  - 1 cm gage block located at end of handle.

The Plastic Grooving Tool is used to control the width of the soil groove in the liquid limit cup. With traditional metal grooving tools, the cups get scratched; the costly metal tools get worn, giving inaccurate test results.

### Standards ASTM D4318

### **Further Information**

Pkg. of 10.

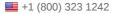
#### Specification

Construction Gauge Height Weight Molded polycarbonate resin. 1 cm. Net 3 oz. (85 g).

### Accessories



#### **Casagrande Grooving Tool Aashto**







# Test Gauge for Checking Condition of Cone Point.

Code: 24-0546 Product Group: Cone Penetrometer Method, Cone Penetrometer

55 mm diameter by 40 mm deep, with the rim parallel to the flat base.

Standards BS 1377-2







# **Penetration Test Cone**

Code: 24-0544 Product Group: Cone Penetrometer Method, Cone Penetrometer

Stainless steel, 35 mm long with smooth surface at an angle of  $30^{\circ}$ .

Standards BS 1377-2







# Cone Penetrometer. Complete with Stainless Steel Test Cone.

Code: 24-0540

Product Group: Cone Penetrometer Method, Cone Penetrometer

Bench mounted apparatus to determine the liquid limit of soils BS1377. This method is applicable to a wide range of soils. The apparatus is fitted with a 150mm diameter dial indicator for direct reading of penetration. Supplied complete with 30deg, 30mm long test cone. Manufactured from stainless steel and includes adjustable levelling feet.

### Standards BS 1377-2

### Specification

**Dial Indicator** 

Height Adjustment

Cone release Cone

Base

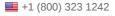
Weight kg

150 mm diameter graduated in 400 x 0.1 mm divisions, indicator point incorporates friction/gear system Rapid, using integral clamping mechanism Manual  $1 \times 30^{\circ}$ , 35 mm test cone included Cast aluminium, adjustable levelling feet 7

### Accessories



### Penetration Test Cup.









# Test Gauge for Checking Condition of Cone Point.

Code: 24-0546

## Spares/Consumables



**Penetration Test Cone** Code: 24-0544

### Alternatives



Semi-Automatic Cone Penetrometer

Code: 24-0545/01







## Penetration Test Cup.

Code: 24-0548 Product Group: Cone Penetrometer Method, Cone Penetrometer

Brass construction, 55mm dia x 40mm depth to fit BS1377

Standards BS 1377-2







### Semi-Automatic Cone Penetrometer

Code: 24-0545/01 Product Group: Semi-Automatic Cone Penetrometer, Semi-Automatic Cone Penetrometer

Bench mounted apparatus to determine the liquid limit of soils to BS1377. This method is applicable to a wide range of soils. The apparatus is fitted with a 150mm diameter dial indicator for direct reading of penetration. Supplied complete with 30 deg, 30mm long test cone. Manufactured from stainless steel and includes adjustable levelling feet.

Incorporates digital automatic controller, which releases the plunger head and ensures free falling of the penetration device during the test. The time set is displayed by a bright easy to read display.

#### Standards BS 1377, BS 1924-2, EN 1997-2

#### Specification

Dial Indicator	150 mm diameter graduated in 400 x 0.1 mm divisions. Indicator incorporates a friction/gear system.
Height	Adjustable using rapid integral clamping mechanism.
Cone Release	Semi-Automatic
Cone	1 x 30°, 35 mm test cone included.
Base	Cast aluminum with adjustable leveling feet.
Weight	Net 19 lbs. (8.64 kg).

### Accessories



#### Penetration Test Cup.









# Test Gauge for Checking Condition of Cone Point.

Code: 24-0546

## Spares/Consumables



**Penetration Test Cone** Code: 24-0544

### Alternatives



## **Cone Penetrometer. Complete with Stainless Steel Test** Cone.







### **Plastic Limit Set**

Code: 2810E Product Group: Plastic Limit Set

Set includes:

- 1 Plastic Limit Plate (24-0810) 12" x 12" x 3/8".

- 1 25 ml Graduated Cylinder (88-6002A). 1 Mixing Dish (88-6710). 1 Doz. Aluminum Moisture Cans (88-7002).
- 1 Flexible Spatula (88-7500).
- 1 Rod Comparator (24-0811).

Standards ASTM D4318, AASHTO T90







# **Plastic Limit Plate 12 x 12**

Code: 24-0810 Product Group: Plastic Limit Set







### **Rod Comparator**

Code: 24-0811 Product Group: Rod Comparator, Determination of Plastic Limit

3mm diameter rod comparator to BS1377.

Standards BS 1924-2, EN 1997-2, ASTM D4318, BS 1377, AASHTO T90







#### **Prong Plate.**

Code: 24-1500 Product Group: Volumetric Shrinkage, Shrinkage Prong Plate

Made of acrylic plastic fitted with three prongs, nominal 76 mm square and 2.4 mm thick.

### Standards BS 1377, ASTM D427, AASHTO T92

### **Specification**

Construction

Dimensions

Weight

Acrylic plastic with 3 metal prongs. 3" square x 1/8" thick (76 x 3.2 mm). Net 1 oz. (28 g).

### Accessories



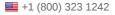
Evaporating Dish - 150 x 45 mm

Code: 82-2000



### Measuring Cylinder - Glass 100 ml

Code: 82-0380







## Alternatives



**Glass Cup.** Code: 24-1600



# Shrinkage Dish.







### Shrinkage Dish.

Code: 24-1550 Product Group: Volumetric Shrinkage, Shrinkage Prong Plate

Nominal 42 mm diameter x 12 mm deep.

Standards ASTM D427, AASHTO T92

### Accessories



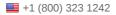
### Evaporating Dish - 150 x 45 mm

Code: 82-2000



Measuring Cylinder - Glass 100 ml Code: 82-0380

#### Alternatives









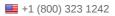
# Glass Cup.

Code: 24-1600



# Prong Plate.









### **Shrinkage Limit Set**

Code: 2820E Product Group: Shrinkage Limit Set

Set includes:

- 1 Monel Shrinkage Dish (24-1550).

- 1 Crystallizing Dish (24-1500). 1 Shrinkage Prong Plate (24-1500). 1 25 ml Graduated Cylinder (88-6002A).
- 1 Evaporating Dish (88-6714).

### **Standards** ASTM D427, AASHTO T92

#### **Further Information**

Three pounds of mercury and other accessories required for shrinkage limit test; not included







### Hydrometer Jar Bath 110vAC

Code: 24-4867/02 Product Group: Hydrometer Jar Bath

Standards ASTM D422, AASHTO T88

#### **Further Information**

110vAC, 50/60 Hz, 1ø.

#### Specification

Capacity Construction

Jar Support Temperature Range Sensitivity Circulating System Heating System

**Plumbing Ports** 

Inside Dimensions

**Outside Dimensions** 

Weight

8 hydrometer jars. Stainless steel tank; enamel finish exterior. Stainless steel grid. Ambient to 60°C (14 0°F). ±0.2°C at 20°C (68°F). Drive pump with motor. Immersion type; 700 watt heater in stainless steel mixing chamber. Overflow; Drain; Inflow and outflow for cooling system. 37â00 w x 8â00 d x 16â00 h (939 x 203 x406 mm) 48 â00 w x 11 â00 d x 19â00 h (1,219 x 279 x 483 mm) Net 90 lbs. (41 kg).

### **Alternatives**









# Hydrometer Jar Bath 220vAC

Code: 24-4867/01







### **Mechanical Analysis Stirrer 120vAC**

Code: 24-4132/02 Product Group: Mechanical Analysis Stirrer

Universal AC-DC; up to 75 cycles; 3-speed selectable.

Die-cast aluminum; stainless

Rotary speed control switch;

Disc-shaped; nickel-plated

permanently mounted; rounded

7" w. x 6-1/2" d. x 20" h. (178 x

Universal AC-DC; up to 75

cycles; 3-speed selectable.

Die-cast aluminum; stainless steel front panel; baked

Rotary speed control switch;

Disc-shaped; nickel-plated

4 stationary baffles,

165 x 508 mm).

Net 15 lbs. (7 kg).

Low: 13 ,000 rpm.

enamel finish.

on-off switch.

steel.

Medium: 16,000 rpm. High: 18,000 rpm.

steel front panel; baked

Low: 13 ,000 rpm. Medium: 16,000 rpm. High: 18,000 rpm.

enamel finish.

on-off switch.

steel.

bottom.

Standards ASTM D422, AASHTO T88

### Further Information

110vAC, 50/60 Hz, 1ø. 125 Watts

#### Specification

Motor

Speeds at No Load

Housing

Controls

Mixing Paddle

**Dispersion Cup** 

Dimensions

Weight Motor

Speeds at No Load

Housing

Controls

Mixing Paddle





**Dispersion Cup** 

Dimensions

Weight

4 stationary baffles, permanently mounted; rounded bottom. 7" w. x 6-1/2" d. x 20" h. (178 x 165 x 508 mm). Net 15 lbs. (7 kg).

### Spares/Consumables



Mixing Paddle

Code: 24-4132/11



**Soil Dispersion Cup** 

Code: 24-4132/10

#### **Alternatives**



Mechanical Analysis Stirrer 220-240vAC

Code: 24-4132/01







## **Mixing Paddle**

Code: 24-4132/11 Product Group: Mechanical Analysis Stirrer Net Wt. 1 oz. (28 g).

Standards ASTM D422, AASHTO T88







# Soil Dispersion Cup

Code: 24-4132/10 Product Group: Mechanical Analysis Stirrer Capacity 32 oz. Net Wt. 1 lb. (454 g).

Standards ASTM D422, AASHTO T88







### Soil Hydrometer Type 152H ASTM/Aashto Graduated -5 to + 60G/Litre.

Code: 24-4640 Product Group: ASTM Soil Hydrometers, Soil Hydrometers

Graduated -5 to +60 g/litre.

#### Standards

BS 1377, EN 1997-2, ASTM D422, ASTM E100, AASHTO T88

### Specification

Construction Scale Calibration Weight Molded, seamless. Bouyoucos; double scale. At 68°F. Net 4 oz. (113 g).

### Alternatives



# Soil Hydrometer BS EN DD ENV graduated 0.995 to 1.030 g/ml

Code: 24-4620



# Soil Hydrometer Type 151H ASTM D422 Graduated 0.995 to 1.038 Specific Gravity.







### Soil Hydrometer Type 151H ASTM D422 Graduated 0.995 to 1.038 Specific Gravity.

Code: 24-4650 Product Group: ASTM Soil Hydrometers, Soil Hydrometers

Graduated 0.995 to 1.038 g/ml.

### Standards ASTM D422, ASTM E100, AASHTO T88

#### Specification

Construction Scale Calibration Weight Molded, seamless. Bouyoucos; double scale. At 68°F. Net 4 oz. (113 g).

### Alternatives



# Soil Hydrometer BS EN DD ENV graduated 0.995 to 1.030 g/ml

Code: 24-4620



# Soil Hydrometer Type 152H ASTM/Aashto Graduated -5 to + 60G/Litre.







## Sodium Hexametaphosphate 500G.

Code: 24-4145 Product Group: Sodium Hexametaphosphate, Mechanical Analysis Stirrer

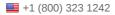
Standards ASTM D422, AASHTO T88, ASTM E100

## Spares/Consumables



## Solid Rubber Stopper

Code: 4699-0881







# Particle Size Analysis Test Set

Code: 2824/02 Product Group: Particle Size Analysis Test Set

Standards ASTM D422, ASTM E100, AASHTO T88

Further Information 110vAC, 50/60 Hz, 1ø.







## **Solid Rubber Stopper**

Code: 4699-0881 Product Group: Sodium Hexametaphosphate, Hydrometer Jar

### Accessories

### Sodium Hexametaphosphate 500G.









# Hydrometer Sedimentation Cylinder

Code: 24-4700 Product Group: Hydrometer Sedimentation Cylinder, Hydrometer Jar

Glass, 1000 ml capacity complete with rubber bung.

Standards BS 1337, ASTM D422, AASHTO T88

# Further Information

1000MI Glass

### Accessories



Nomographic Chart for The Determination of Stokes Law. Code: 24-4800

# Spares/Consumables

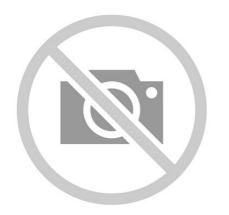


Solid Rubber Stopper

Code: 4699-0881







# Nomographic Chart for The Determination of Stokes Law.

Code: 24-4800 Product Group: Hydrometer Sedimentation Cylinder

For the determination of Stoke's Law.

Standards ASTM D422, AASHTO T88







### Sand Equivalent Test Set

Code: 24-4917

Product Group: Sand Equivalent Test Set

- Set Includes:
- 1 Solid Rubber Stopper.
- 1 2-Hole Rubber Stopper.
- 1 Pinch Clamp.
- 1 Carrying Case.
- 1 Weighted Foot Assembly.
- 1 Funnel.
- 1 Irrigation Tube.
- 1 Siphon Tube.
- 1 Blow Hose.
- 1 Measuring Can 85ml +/- 5ml.
- 1 Bottle Stock Solution.
- 4 Sand Equivalent Cylinders.

### Standards ASTM D2419, AASHTO T176

### Specification

Stock Solution

Carrying Case Weight Mixture of calcium chloride and glycerin. Plastic; holds all components. Net 22 lbs. (10 kg).

### Spares/Consumables



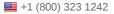
### Sand Equivalent Cylinder

Code: 24-4917/10



### **Stock Solution 1 gallon**

Code: 24-4938









# Stock Solution 8 oz.

Code: 24-4936







# Stock Solution 8 oz.

Code: 24-4936 Product Group: Sand Equivalent Test Set

Standards ASTM D2419, AASHTO T176







### **Sand Equivalent Shaker**

Code: 24-4949/02 Product Group: Sand Equivalent Shaker

Standards ASTM D2419, AASHTO T176, CA 217, CA 229

### **Further Information**

110vAC, 50/60 Hz, 1ø.

#### Specification

Motor 1.9 Amp synchronized; 1/12 hp. Cylinder Holder Shaking Mechanism strokes). **Timing Circuit** Dimensions

Weight

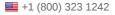
Spring-loaded. 8â11 (203 mm) stroke; 175 strokes/minute (+/- 2 Built-in; 45 seconds, 10 minute and continuous run. 19.5â00 w. x 14 â00 d. x 17â00 h. (495 x 35 6 x 432 mm) with holder. Net 50 lbs. (23 kg).

## Spares/Consumables



#### Sand Equivalent Cylinder

Code: 24-4917/10







# Sand Equivalent Cylinder

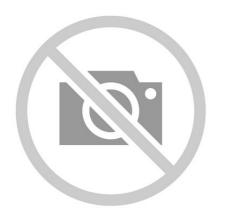
Code: 24-4917/10 Product Group: Sand Equivalent Test Set, Sand Equivalent Shaker

Clear plastic; 1-1/4" diam. x 17" h. (32 x 432 mm); graduated to 15" x 0.1" (381 x 2.54 mm).

Standards ASTM D2419, AASHTO T176







# Speedy Calibration Unit Self Contained Unit.

Code: 23-7600

Product Group: Rapid Moisture Testers, Accessories for the Speedy Moisture Tester, Accessories for the Speedy Moisture Tester

A self-contained unit designed to enable an operator to check the accuracy of the Speedy Moisture Tester. The unit comprises a master dial, integral air pump, control connections and tools for checking gauge accuracy and pressure leaks, with instructions for simple re-calibrations.

Standards ASTM D4944, AASHTO T217







### Speedy Moisture Tester D2 Large 0-20% Moisture Range. Supplied Less Calcium Carbide

Code: 23-7452

Product Group: Rapid Moisture Testers, Rapid method by Speedy Moisture Tester, Rapid method by Speedy Moisture Tester

Uses a technique based on the fact that water will react with calcium carbide to form a gas and that the quantity of gas formed is directly proportional to the water present. The gas pressure is indicated on a built-in pressure gauge. The pressure gauge calibrated in percentage of moisture. Has a moisture range of 0-20% with gauge divisions every 0.2%. Holds a sample size of 20 g. Includes an electronic balance of 200 g capacity x 0.1 g readability and is supplied in plastic carrying case.

### Standards BS 812, ASTM D4944, AASHTO T217

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D2 Large
0 to 20%
0.20%
20
8.4

### Accessories



Calcium Carbide Powder 500G.

Code: 23-7700



# Reagent for Speedy Moisture Testers. Pack of 12 Cans 500 G Each. (Calcium Carbide)







Speedy Calibration Unit Self Contained Unit.

Code: 23-7600

## Spares/Consumables



Portable Electronic Balance

Code: 23-7452/12

## Alternatives



Speedy Moisture Tester D2 Small 0-20% Moisture Range. Supplied Less Calcium Carbide

Code: 23-7502



Speedy Moisture Tester G2 Large 0-50% Moisture Range. Supplied Less Calcium Carbide







### Speedy Moisture Tester D2 Small 0-20% Moisture Range. Supplied Less Calcium Carbide

Code: 23-7502

Product Group: Rapid method by Speedy Moisture Tester, Rapid method by Speedy Moisture Tester

Uses a technique based on the fact that water will react with calcium carbide to form a gas and that the quantity of gas formed is directly proportional to the water present. The gas pressure is indicated on a built-in pressure gauge. The pressure gauge calibrated in percentage of moisture. Has a moisture range of 0-20% with gauge divisions every 0.2%. Holds a sample size of 6 g. Includes an electronic balance of 200 g capacity x 0.1 g readability and is supplied in plastic carrying case.

#### Standards ASTM D4944, AASHTO T217

#### **Further Information**

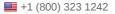
\*\*NOT AVAILABLE FOR SALE IN THE USA\*\*

#### Specification

Model	D2 Small
Moisture Range	0 to 20%
Gauge divisions	0.20%
Sample weight g	6
Weight complete kg	5.5

### Accessories

### Calcium Carbide Powder 500G.







Reagent for Speedy Moisture Testers. Pack of 12 Cans 500 G Each. (Calcium Carbide)

Code: 23-7702



### **Speedy Calibration Unit Self Contained Unit.**

Code: 23-7600

### Alternatives



Speedy Moisture Tester D2 Large 0-20% Moisture Range. Supplied Less Calcium Carbide

Code: 23-7452



### Speedy Moisture Tester G2 Large 0-50% Moisture Range. Supplied Less Calcium Carbide







### Speedy Moisture Tester G2 Large 0-50% Moisture Range. Supplied Less Calcium Carbide

Code: 23-7462

Product Group: Rapid method by Speedy Moisture Tester, Rapid method by Speedy Moisture Tester

Uses a technique based on the fact that water will react with calcium carbide to form a gas and that the quantity of gas formed is directly proportional to the water present. The gas pressure is indicated on a built-in pressure gauge. The pressure gauge calibrated in percentage of moisture. Has a moisture range of 0-50% with gauge divisions every 0.5%. Holds a sample size of 8 g. Includes an electronic balance of 200 g capacity x 0.1 g readability and is supplied in plastic carrying case.

#### Standards ASTM D4944, AASHTO T217

#### **Further Information**

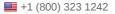
\*\*NOT AVAILABLE FOR SALE IN THE USA\*\*

### Specification

Model	G2 Large
Moisture Range	0 to 50%
Gauge divisions	0.50%
Sample weight g	8
Weight complete kg	7.5

### Accessories

### Calcium Carbide Powder 500G.







Reagent for Speedy Moisture Testers. Pack of 12 Cans 500 G Each. (Calcium Carbide)

Code: 23-7702



### **Speedy Calibration Unit Self Contained Unit.**

Code: 23-7600

## Alternatives



Speedy Moisture Tester D2 Large 0-20% Moisture Range. Supplied Less Calcium Carbide

Code: 23-7452



### Speedy Moisture Tester D2 Small 0-20% Moisture Range. Supplied Less Calcium Carbide







### Reagent for Speedy Moisture Testers. Pack of 12 Cans 500 G Each. (Calcium Carbide)

Code: 23-7702

Product Group: Accessories for the Speedy Moisture Tester, Rapid Moisture Testers, Accessories for the Speedy Moisture Tester

Pack of 12 x 500 g containers.

Standards ASTM D4944, AASHTO T217







# Portable Electronic Balance

Code: 23-7452/12 Product Group: Rapid Moisture Testers 0-200 gram. 0.1 gram readability

Standards ASTM D4944, AASHTO T217







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

Code: 24-8085/01

Product Group: Automatic Soil Compactor

With NEW CE Compliant guarding as an extra safety measure for users
Five models meeting requirements of BS/EN and ASTM available
Complies to BS 1377-4, BS 1924-2, EN

13286-2, EN 13286-47, ASTM D558, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134, AASHTO T180 standards

Automatic re-setting of counter after completion of blow pattern

The time and effort required to prepare specimens for compaction studies and other test methods can often be costly and time-consuming. The use of an automatic, mechanical compactor will show considerable cost benefits over hand compaction methods.

These machines automatically compact specimens eliminating the laborious hand compaction method. The height and weight of the rammer are adjustable to suit test requirements.

An automatic blow pattern ensures optimum compaction for each layer of soil in compliance with the standards. The rammer travels across the mould and the table rotates the mould in equal steps on a base that is extremely stable. The number of blows per layer can be set at the beginning of the test.

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. The selectable rammer has 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 BS 1377-4, BS 1924-2, EN 13286-2, EN 13286-47, ASTM D558, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134, AASHTO T180.

#### Specification Standards

BS 1377-4, BS 1924-2, EN 13286-2, EN 13286-47, ASTM D558, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134,







Rammer BS/EN	AASHTO T180 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)	165

### Accessories

ASTM Compaction Mould 152mm.





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







# 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







# Calibration Kit For Automatic Soil Compactor

Code: 24-9095/12 Product Group: Automatic Soil Compactor

TheCalibration Kitis used to check and adjust the Mechanical Soil Compactor to ensure that it produces the same results as the manual compactor. Calibration is based on the deformation of a standard lead cylinder. The kit consists of a 1/4" extension point, a guide sleeve pedestal, a guide collar, a striking pin, an anvil, a 1/4" diameter chrome steel ball and a package of 50 lead cylinders.

A dial indicator or micrometer is required for the test. Order separately.

#### Standards

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

# Further Information ASTM D-2168

#### Spares/Consumables



## **Lead Cylinders**

Code: 24-9095/13







#### **Proctor Mould**

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

#### Standards

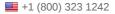
ASTM D558, ASTM D559, ASTM D560, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134, AASHTO T135, AASHTO T136, AASHTO T180

### 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







# Lead Cylinders

Code: 24-9095/13 Product Group: Automatic Soil Compactor For EI24-9095/12. Pack of 100.

## Accessories

# Calibration Kit For Automatic Soil Compactor

Code: 24-9095/12







# **Modified Compaction Mould**

Code: 24-9098 Product Group: Modified Compaction Mould, Automatic Soil Compactor

1/13.33 cu.ft.; 6" i.d. x 4.584" h.

#### Standards

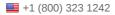
ASTM D698, ASTM D1557, AASHTO T99, AASHTO T180

## Specification

Mould Volume Dimensions

Base Plate Weight 1/13 .33 cu. ft. 6â:00 i.d. x 4.584â:00 h. (152 .4 x 11 6.4 mm). 8â:00 x 8â:00 (203 x 203 mm). Net 18 lbs. (8.2 kg).

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# **Standard Compaction Mould**

Code: 24-9097 Product Group: Standard Compaction Mould, Automatic Soil Compactor

1/30 cu.ft.; 4" i.d. x 4.584" h.

#### **Standards**

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

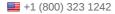
#### Specification

Mould Volume Dimensions

Base Plate

Weight

1/30 cu. ft. 4â00 i.d. x 4.584â00 h. (101.6 x 11 6.4 mm). 6â00 x 6â00 x 1/2â00 thick (152 x 152 x 13 mm). Net 12 lbs. (5.4 kg).







# Automatic Soils Compactor with guarding ASTM 220-240V 60Hz 1 ph

Code: 24-8085/06

Product Group: Automatic Soil Compactor

With NEW CE Compliant guarding as an extra safety measure for users
Five models meeting requirements of BS/EN and ASTM available
Complies to BS 1377-4. BS 1924-2. EN

13286-2, EN 13286-47, ASTM D558, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134, AASHTO T180 standards

Automatic re-setting of counter after completion of blow pattern

The time and effort required to prepare specimens for compaction studies and other test methods can often be costly and time-consuming. The use of an automatic, mechanical compactor will show considerable cost benefits over hand compaction methods.

These machines automatically compact specimens eliminating the laborious hand compaction method. The height and weight of the rammer are adjustable to suit test requirements.

An automatic blow pattern ensures optimum compaction for each layer of soil in compliance with the standards. The rammer travels across the mould and the table rotates the mould in equal steps on a base that is extremely stable. The number of blows per layer can be set at the beginning of the test.

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. The selectable rammer has 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 BS 1377-4, BS 1924-2, EN 13286-2, EN 13286-47, ASTM D558, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134, AASHTO T180.

#### Specification Standards

BS 1377-4, BS 1924-2, EN 13286-2, EN 13286-47, ASTM D558, ASTM D698, ASTM D1557, AASHTO T99, AASHTO T134,







	AASHTO T180
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)	165

### Accessories

ASTM Compaction Mould 152mm.





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







### Basic Laboratory Compaction Set, Motorized

Code: 2310/01

Product Group: Basic Laboratory Compaction Set, Motorized

Set Includes:

- 1 Automatic Soil Compactor (24-9095/01).
- 1 Standard Compaction Mold (24-9097).
- 1 Modified Compaction Mold (24-9098).
- 1 Straightedge (24-9010).
- 1 Mixing Trowel (88-7400).
- 1 Mixing Spoon (88-7700).
- 1 Spatula (88-7500).
- 1 Trimming Knife (88-7910).
- 1 Sample Ejector (23-4085).
- 3 Mixing Pans (88-7190).
- 1 Doz. Moisture Cans (88-7022A).
- 1 Wash Bottle (88-6600).

#### **Standards**

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

Further Information

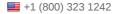
220-240vAC, 50Hz, 1ø.

### **Alternatives**



#### **Basic Laboratory Compaction Set, Hand-Operated**

Code: 2300E







### Basic Laboratory Compaction Set, Hand-Operated

Code: 2300E Product Group: Basic Laboratory Compaction Set, Hand-Operated

Set Includes:

- 1 Standard Compaction Mold (24-9097).
- 1 Modified Compaction Mold (24-9098).
- 1 Standard Compaction Hammer (24-9063).
- 1 Modified Compaction Hammer (24-9070).
- 1 Straightedge (24-9010).
- 1 Mixing Trowel (88-7400).
- 1 Mixing Spoon (88-7700).
- 1 Spatula (88-7500).
- 1 Trimming Knife (88-7910).
- 1 Sample Ejector (23-4085).
- 3 Mixing Pan (88-7150).
- 1 Doz. Moisture Cans (88-7022A).
- 1 Wash Bottle (88-6612).

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

### **Alternatives**



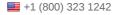
**Basic Laboratory Compaction Set, Motorized** 

Code: 2310/02



**Basic Laboratory Compaction Set, Motorized** 

Code: 2310/01







#### **Sample Ejector**

Code: 23-4085

Product Group: Sample Ejector, Sample Ejector

- Fast sample extrusion from moulds and sampling • 6,000 lbf. (26.7 kN) hand-operated hydraulic jack.
- Bench top design for use in both the laboratory and the field.

• All metal construction treated for rust resistance and long life.

Fast extrusion and ejection of soil samples from moulds and short lengths of sample tubing are accomplished by the ELE Sample Ejector. Designed in a heavy duty bench style, the ejector has a pushing force of 6,000 lbf. (26.7 kN) which is developed through a hand operated hydraulic jack.

This unit is complete with accessories for ejecting samples from 4" (101.6 mm) or 6" (152.4 mm) diamter moulds, up to 7" (178 mm) long.

#### **Further Information**

For 4" and 6" dia. samples up to 7" long.

2", 2.5" and 3" dia. ejector head and adapter plates available, order separately.

#### Specification

Pushing Force Jack	6,000 lbf. (26.7 kN). Hydraulic; hand-operated; 7" (178 mm) stroke.
Construction	All metal; plated extrusion plates and piston discs; painted finish on housing and pump.
Dimensions	10-1/2" w. x 8" d. x 22 -1/2" h. (267 x 203 x 571 mm).
Weight	Net 64 lbs. (29 kg); Shpg. 75 lbs. (34 kg).
Capacity	2" (50.8 mm) and 3" (76.2 mm) shelby tubes up to 7" l. (178 mm); 4" (101.6 mm) and 6" (152 .4 mm) molds.
Pushing Force	6,000 lbf. (26.7 kN).
Jack	Hydraulic; hand-operated; 7" (178 mm) stroke.
Construction	All metal; plated extrusion on housing and pump.
Dimensions	10-1/2" w. x 8" d. x 22 -1/2" h.





Weight

(267 x 203 x 571 mm). Net 64 lbs. (29 kg); Shpg. 75 lbs. (34 kg).

### Accessories



2.5" Ejector Head and Adapter Plate

Code: 23-4085/10



**2" Ejector Head and Adapter Plate** Code: 23-4085/12



# **3" Ejector Head and Adapter Plate**

Code: 23-4085/13

### Alternatives



## **Horizontal Sample Ejector**







# 2.5" Ejector Head and Adapter Plate

Code: 23-4085/10 Product Group: Sample Ejector, Sample Ejector For 2.5" o.d. x 2.416" tubes.

### **Further Information**

For ejecting 2.416" diameter samples from 2.5" o.d. tubes.







# 2" Ejector Head and Adapter Plate

.

Code: 23-4085/12 Product Group: Sample Ejector, Sample Ejector







# 3" Ejector Head and Adapter Plate

.

Code: 23-4085/13 Product Group: Sample Ejector, Sample Ejector







# **CBR Test Accessory Set Metric**

Code: 24-9177 Product Group: Versa-Loader

Includes lower platen, penetration piston assembly, dial indicator with 25 mm range 45 kN capacity proving ring and mounting hardware.

Standards ASTM D1883, AASHTO T193

### Accessories



**CBR Data Logging Test Set** 

Code: 27-1126/02

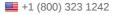


**CBR Test Accessory Set English** 

Code: 24-9175



CBR Test Accessory Set For Use with GDU or DSU Code: 24-9185







# **CBR Test Digital Readout (English)**

Code: 27-1124/02



**CBR Test Digital Readout (Metric)** 

Code: 27-1125/02

## **Alternatives**



**CBR Data Logging Test Set** 

Code: 27-1126/02



**CBR Test Accessory Set English** 

Code: 24-9175



# CBR Test Accessory Set For Use with GDU or DSU

Code: 24-9185









# **CBR Test Digital Readout (English)**

Code: 27-1124/02



# **CBR Test Digital Readout (Metric)**

Code: 27-1125/02







# **CBR Test Digital Readout (Metric)**

Code: 27-1125/02 Product Group: Versa-Loader

Includes: 2-channel digital readout, 45 kN capacity S-type load cell, penetration transducer with 50 mm range, penetration piston and mounting hardware

Standards ASTM D1883, AASHTO T193

#### **Further Information**

110vAC, 50/60 Hz, 1ø.

#### Accessories



**CBR Data Logging Test Set** 

Code: 27-1126/02



#### **CBR Test Accessory Set English**

Code: 24-9175









## **CBR Test Accessory Set For Use with GDU or DSU**

Code: 24-9185



**CBR Test Accessory Set Metric** 

Code: 24-9177



**CBR Test Digital Readout (English)** 

Code: 27-1124/02

### **Alternatives**



**CBR Data Logging Test Set** 

Code: 27-1126/02



CBR Test Accessory Set English

Code: 24-9175









## CBR Test Accessory Set For Use with GDU or DSU

Code: 24-9185



# **CBR Test Accessory Set Metric**

Code: 24-9177



# **CBR Test Digital Readout (English)**

Code: 27-1124/02







# **CBR Data Logging Test Set**

Code: 27-1126/02 Product Group: Versa-Loader

Includes Platen Assembly, 10,000 lb. capacity S-Type Load Cell, 50 mm Displacement Transducer, Penetration Piston, GDU and DS7.2.

Compatible with Versa-Loader, Tritest 50, CBR-Test 50 and MultiPlex 50 Load Frames.

Standards ASTM D1883, AASHTO T193

#### **Further Information**

110vAC, 50/60 Hz, 1ø.

#### Accessories



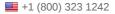
**CBR Test Accessory Set English** 

Code: 24-9175



#### **CBR Test Accessory Set For Use with GDU or DSU**

Code: 24-9185









## **CBR Test Accessory Set Metric**

Code: 24-9177



# **CBR Test Digital Readout (English)**

Code: 27-1124/02



# **CBR Test Digital Readout (Metric)**

Code: 27-1125/02

### **Alternatives**



# **CBR Test Accessory Set English**

Code: 24-9175



# CBR Test Accessory Set For Use with GDU or DSU Code: 24-9185









## **CBR Test Accessory Set Metric**

Code: 24-9177



# **CBR Test Digital Readout (English)**

Code: 27-1124/02



# **CBR Test Digital Readout (Metric)**

Code: 27-1125/02







#### **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**

Rapid Approach Speed

Complete with RS 232C interface.

#### Specification

Capacity Speed Range 50kN (11,200 lbf). English mode: 0.000001 to 0.399999 in/min. Metric mode: 0.00001 to 9.99999 mm/min. 1.0 in/min. (25 mm/min.).





Platen Travel

Platen Diameter Vertical Clearance

Horizontal Clearance Serial Interface

**Overall Dimensions** 

Weight

100mm (3.9"); limit switch protection. 133 mm (5.2") 910 mm, (36 .8") maximum; 305mm, (12") minimum. 364mm, (15 .3"). RS232C; programmable baud rate and protocol. 500 x 500 x 1,470 mm, (19.7" w. x 19.7" d. x 57.8" h). Net 100kg (220 lbs); Shpg. 136kg (300 lbs).

#### Accessories



**50kN Clamped Boss Load Ring** Code: 78-0860



Adaptor kit, to perform CBR on the Tritest 50 load frame Code: 25-3518/10



Clamped Boss Load Ring - 10.0 kN Code: 78-0460



### 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

# Alternatives



MultiPlex 50 Load Frame

Code: 25-3700/01



Versa-Loader Code: 25-3525/02







# **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** 

Code: 78-0860







#### 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

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



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



Penetration Dial Gauge BS

Code: 24-9186



Penetration Piston Code: 24-9182







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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







# Floor Mounting Stand.

Code: 25-0429 Product Group: Consolidation Apparatus, Table Top Consolidation Apparatus

A versatile modular steel stand. Holes in the shelf are provided for securing up to three EL25-0402 Consolidation Frames. Dimensions  $610 \times 915 \times 865$  mm (l x w x h).

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







# 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







#### 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 24 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	24 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.

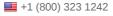
Code: 25-0479



# **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

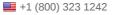


# **Mechanical Dial Indicator - 25 mm Range Counter Clockwise Movement**

Code: 88-4130



# Set of Weights 100Kg Total Weight.









# Weight Set A Code: 25-0535

Weight Set B

Code: 25-0537

# Spares/Consumables



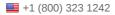
# Electronic Digital Indicator, 0.600"/15 mm range

Code: 88-4210

### Alternatives



# **Pneumatic Consolidation Apparatus**







# **16 Ton Weight Set**

Code: 25-0544 Product Group: Direct/Residual Shear Apparatus, Table Top Consolidation Apparatus

Includes: two 1/16 ton, one 1/8 ton, one 1/4 ton, one 1/2 ton, one 1 ton and seven 2 ton weights.

# Further Information

for use with 2.5" diamter samples

### Accessories



Weight Set A

Code: 25-0535



Weight Set B Code: 25-0537

## **Alternatives**



Weight Set A Code: 25-0535

www.ele.com









# Weight Set B







# 2.416" Fixed Ring Consolidometer

Code: 25-0480 Product Group: Fixed Ring Consolidation, Pneumatic Consolidation Apparatus, Table Top Consolidation Apparatus

With cutting (specimen) ring.

#### Standards

ASTM D2435, ASTM D4546, AASHTO T216

### Specification

Application	California
Specimen Diameter	2.41 6â
Specimen Area	4.585in²
Beam Ratio	10:01
Load	1.45 kg
Stress	1000lbf/ftÂ <sup>2</sup>
Typical Maximum Stress	11 0,720lbf/ftÂ <sup>2</sup>
Stress for 1 kg	692lbf/ftÂ <sup>2</sup>

### Accessories



### 2.5" Floating Ring Consolidometer

Code: 25-0530

#### **Spares/Consumables**



Upper and Lower Porous Stones, 2.416"

Code: 25-0480/13

## **Alternatives**







# 2.5" Floating Ring Consolidometer







# Upper and Lower Porous Stones, 2.416"

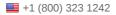
Code: 25-0480/13 Product Group: Fixed Ring Consolidation

Standards ASTM D2435, ASTM D4546, AASHTO T216

#### Accessories



# 2.416" Fixed Ring Consolidometer







## 2.5" Floating Ring Consolidometer

Code: 25-0530 Product Group: Floating Ring Consolidometer, Pneumatic Consolidation Apparatus, Table Top Consolidation Apparatus

## Specification

Specimen Size

Base

Specimen Ring Porous Stones

Weight

#### Accessories



Machined brass. 2-15 /32 â00 diam. x 1/2â00 thick (62.7 x 12 .7 mm). Net 13 lbs. (5.9 kg).

2.5â diam. x 1â h. (63.5 x

One-piece machined bronze;

5â00 diam. x 3â00 h. (12 7 x 76.2 mm).

25 .4 mm).

2.416" Fixed Ring Consolidometer Code: 25-0480



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

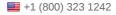
Code: 25-0479

### Spares/Consumables



**Porous Stone 2-15/32" dia.** Code: 25-0530/10

0000.20 0000,20







Specimen Ring 2.5" Code: 25-0533

## Alternatives



# 2.416" Fixed Ring Consolidometer

Code: 25-0480



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







#### 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

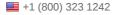


## **Calibration Disc 2.5 Inch Cell**

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







# Consolidation Cell Complete 50mm Diameter Sample.

Code: 25-0455

Product Group: Table Top Consolidation Apparatus, Pneumatic Consolidation Apparatus, Fixed Ring Consolidation, High pressure application consolidation cells and accessories

- 50 mm dia samples
- Integral water reservoir
- Supplied with upper and lower porous disc and cutting ring
- Manufactured from corrosion resistant materials
- Maximum working stress 8 mpa

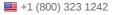
#### **Specification**

Application	High pressure
Specimen Dia	50 mm
Specimen area	1963 mm <sup>2</sup>
Beam ratio	10:1
Load kg	1
Stress	50 kPa
Typical max stress	8 MPa
Stress for 1 kg m <sup>2</sup>	50 kPa
Application	High Pressure
Specimen Diameter	50 mm
Specimen Area	1963 mm²
Beam Ratio	10:01
Load	1 kg
Stress	50 kPa
Typical Maximum Stress	8 MPa
Stress for 1 kg	50 kPa

#### Accessories



#### **Calibration Disc 50mm Cell**









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

Code: 25-0479



# Consolidation Cell/ Oedometer Complete 75mm Diameter Sample

Code: 25-0503

## Spares/Consumables



50mm Dia Upper and Lower Porous Stones for Use on EL25-0455 Series Cell.

Code: 25-0455/13



Cutting Ring 50mm Cell. Code: 25-0458

Alternatives



**Calibration Disc 50mm Cell** 

Code: 25-0461



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









# Consolidation Cell/ Oedometer Complete 75mm Diameter Sample







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

Code: 25-0503

Product Group: Table Top Consolidation Apparatus, BS EN consolidation cells and accessories, Pneumatic Consolidation Apparatus, Fixed Ring Consolidation

## Specification

•	
Application	BS/EN 10:1
Specimen Dia	75 mm
Specimen area	4418 mm <sup>2</sup>
Beam ratio	9:1
Load kg	1
Stress	20 kPa
Typical max stress	3.2 MPa
Stress for 1 kg m <sup>2</sup>	20 kPa
Application	BS
Specimen Diameter	75 mm
Specimen Area	4418 mm <sup>2</sup>
Beam Ratio	10:01
Load	1 kg
Stress	20 kPa
Typical Maximum Stress	3.2 MPa
Stress for 1 kg	20 kPa

#### Accessories



## **Calibration Disc 75mm Cell**

Code: 25-0509



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









Consolidation Cell Complete 50mm Diameter Sample.

Code: 25-0455

#### Spares/Consumables



75mm Dia Upper and Lower Porous Stones for Use on EL25-0503 Series Cell.

Code: 25-0503/13



Cutting Ring 75mm Cell.

Code: 25-0506

### Alternatives



Calibration Disc 75mm Cell Code: 25-0509

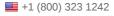


Consolidation Cell Complete 2.5 Inch Diameter Sample. Inc. Porous Discs and Cutting Ring.

Code: 25-0479



Consolidation Cell Complete 50mm Diameter Sample.







#### 75mm Dia Upper and Lower Porous Stones for Use on EL25-0503 Series Cell.

Code: 25-0503/13 Product Group: BS EN consolidation cells and accessories, Fixed Ring Consolidation

### Standards

BS 1377-5

#### Accessories



# Consolidation Cell/ Oedometer Complete 75mm Diameter Sample

Code: 25-0503







#### Cutting Ring 75mm Cell.

Code: 25-0506 Product Group: BS EN consolidation cells and accessories, Fixed Ring Consolidation

#### Standards BS 1377-5

Accessories



# Consolidation Cell/ Oedometer Complete 75mm Diameter Sample

Code: 25-0503







#### Mechanical Dial Indicator - 10 mm Range

Code: 88-4080 Product Group: Mechanical Dial Indicators, Pneumatic Consolidation Apparatus, Table Top Consolidation Apparatus

#### Specification

Range	10 mm
Divisions	0.0025 mm
Movement	Counter-clockwise
Face Diameter	92 mm
Contact Point	Immediate response, up or down; tip movement magnified to indicator hand with minimal friction; 3/16" (5 mm) radius x 1/4" (6 mm) I.
Dials	With continuous graduations and revolution counters.
Measure Movement	Measure movement away from dial case; pointer at zero with stem retracted.
Weight	Net 12 oz. (34 0 g).

#### Accessories



#### **1" Extension Point**

Code: 88-4154



#### 1/2" Extension Point

Code: 88-4152









#### 1/4" Extension Point

Code: 88-4150



#### **3" Extension Point** Code: 88-4156



### Mechanical Dial Indicator - 0.4" Range

Code: 88-4070



#### Mechanical Dial Indicator - 1.0" Range Counter Clockwise Movement

Code: 88-4120



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

Code: 88-4130

#### Spares/Consumables







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

Code: 88-4210

#### Alternatives



**1" Extension Point** Code: 88-4154



#### 1/2" Extension Point

Code: 88-4152



**1/4" Extension Point** Code: 88-4150



**3" Extension Point** Code: 88-4156









#### Mechanical Dial Indicator - 0.4" Range

Code: 88-4070



#### Mechanical Dial Indicator - 1.0" Range Counter Clockwise Movement

Code: 88-4120



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

Code: 88-4130







# Electronic Digital Indicator, 0.600"/15 mm range

Code: 88-4210

Product Group: Table Top Consolidation Apparatus, Electronic Digital Indicator, Pneumatic Consolidation Apparatus, Direct/Residual Shear Apparatus

Resolution of 0.0001" (0.002 mm)

#### Accessories



AC Adaptor for Electronic Digital Indicators

Code: 88-4270/02



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



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 Clockwise Movement

Code: 88-4110



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

Code: 88-4130

#### Spares/Consumables



Dial Indicator - 1.0" Range Code: 88-4100



#### Electronic Digital Indicator, 0.250"/6.35 mm range

Code: 88-4200







#### Vertical Dial Indicator, English

Code: 25-0445

#### Alternatives



Dial Indicator - 1.0" Range Code: 88-4100



Electronic Digital Indicator, 0.250"/6.35 mm range Code: 88-4200



# Vertical Dial Indicator, English

Code: 25-0445







#### **Pneumatic Consolidation Apparatus**

Code: 25-0560 Product Group: Pneumatic Consolidation Apparatus 32 tsf capacity.

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

#### Specification

Construction

Maximum Load Required Air Pressure Vertical Clearance Horizontal Clearance Maximum Piston Travel Dimensions Aluminum cabinet with enamel finish; 1" (25 .4 mm) thick aluminum load platform plate; stainless steel vertical rods. 32 tsf. 123 psi (848 kPa). 8.25 " (21 0 mm). 7.75" (197 mm). 0.5" (12 .7 mm). 12 " w. x 14 .5" d. x 20.5" h. (305 x 368 x 521 mm). Net 48 lbs. (21 .8 kg).

Weight

#### Accessories



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

Code: 25-0503



#### **Mechanical Dial Indicator - 0.4" Range** Code: 88-4070



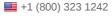
Mechanical Dial Indicator - 1.0" Range Counter Clockwise **Movement** 

Code: 88-4120



#### **Mechanical Dial Indicator - 10 mm Range**

Code: 88-4080







Mechanical Dial Indicator - 25 mm Range Counter Clockwise Movement

Code: 88-4130

#### Spares/Consumables



Electronic Digital Indicator, 0.600"/15 mm range

Code: 88-4210

#### Alternatives



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

Code: 25-0402



Electronic Digital Indicator, 1.0"/25.4 mm range

Code: 88-4220







#### Mortar and Pestle Porcelain.

Code: 23-3505 Product Group: Sample Reduction

Thick walled porcelain mortar; 107mm internal diameter and porcelain pestle.

#### Alternatives



Heat of Hydration Apparatus Code: 38-4600/06



### Heat of Hydration Apparatus

Code: 38-4600/01



#### **Rubber Headed Pestle.**

Code: 23-3500







#### **Rubber Headed Pestle.**

Code: 23-3500 Product Group: Sample Reduction

Specially made for gently grinding soils without breaking the individual particles. Suitable for BS 1377, 1924; ASTM D421; AASHTO T87.

Standards BS 1377, BS 1924, ASTM D421, AASHTO T87

#### **Alternatives**



#### Mortar and Pestle Porcelain.

Code: 23-3505







#### Large Capacity Sample Splitter.

Code: 23-3425 Product Group: Large Sample Splitter, Large Capacity Sample Splitter

The splitter is designed for the reduction of test samples which are too large in volume to be conveniently handled. It divides samples so that half is respresentative of the original total sample and handles material up to 6 inches in particle size.

The lever-actuated unit is constructed of heavy gauge welded steel with a hopper which holds up to 1 cuft. The single splitter chute provides wide flexibility in sizes of opening and adjustment is provided for chutes of 0.5, 1.5, 2, 3, 4 or 6 inch by positioning of the chute bars. Overall height is approximately 1 meter. Hopper size 735 mm long x 480 mm wide (approx).

#### **Further Information**

Complete with 2 material pans and a bag-loading chute.

[1] Splitter Designed For The Reduction Of Test Samples Which Are Too Large In Volume To Be Conveniently Handled.

[2] Handles Samples Up To 6 Inch Diameter.

[3] Wide Flexibility In Size Of Opening And Adjustment Is Provided For Chutes Of 0.5 1.5 2 3 4 Or 6 Inch By Positioning Of The Chute Bars.

- [4] Lever Actuated Unit.
- [5] Heavy Gauge Welded Steel Construction.
- [6] Hopper Holds Up To One Cubic Ft.
- [7] Single Splitter Chute.
- [8] Hopper Size 735 X 480Mm Approx.
- [9] 2 Material Pans.
- [10] Bag Loading Chute.

#### Specification

Capacity

Hopper

Chute Bars

1 cu. ft. (0.028 m3); for sand sizes up to 4" (102 mm). Lever-actuated, clamshell design. 48 aluminum bars, 1/2" (13 mm) width.





Chute Area Chute Openings

Frame Chute Attachment

Material Pans

**Overall Dimensions** 

Weight

#### Accessories



Sample Bag - 10" x 18" (254 x 457 mm)

24 " (610 mm) overall width. Adjustable; 1/2", 1", 1-1/2", 2",

Welded, heavy-gage steel.

Replaces pan to allow sample collection in bag; 28-1/4" l. x 7"w. x 5-1/2" h. (718 x 178 x 14

Two included; 25 -3/4" l. x 9" w. x 6-1/2" h. (654 x 22 9 x 165

29" l. x 19" w. x 39" h. (737 x

Shpg. 142 lbs. (64 kg).

3", 4", or 6".

0 mm).

mm).

483 x 999 mm).

Code: 23-1420



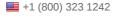
Sample Bag - 17" x 32" (432 x 813 mm) Code: 23-1422

#### Alternatives



Large Capacity Sample Splitter.

Code: 23-3425







Sample Splitter (Riffle Box) - 14 chutes, 1/2" (13 mm) chute width

Code: 23-3052



Sample Splitter (Riffle Box) - 14 chutes, 3/4" (19 mm) chute width

Code: 23-3102



Sample Splitter (Riffle Box) - 16 chutes, 1" (25 mm) chute width

Code: 23-3152



Sample Splitter (Riffle Box) - 8 chutes, 2-1/2" (64 mm) chute width

Code: 23-3352



Sample Splitter (Riffle Box) - 8 chutes, 2" (51 mm) chute width

Code: 23-3302







# **Riffle Box 38mm Slot Width Complete** with Three Containers.

Code: 23-3200

Product Group: Riffle Boxes (Sample Dividers)

Manufactured from heavy-gauge sheet metal. BS recommended maximum particle size of 25 mm. EN recommended maximum particle size of 19 mm. Includes 8 slots each with a 38 mm slot width and an overall approximate capacity of 11 litres.

#### Standards BS 1377, BS 1924, BS 812, EN 932-1

#### Specification

25
19
<u> </u>
38
38 8

#### **Alternatives**



# Riffle Box 13mm Slot Width Complete with Three Containers.

Code: 23-3050



# **Riffle Box 15mm Slot Width Complete with Three Containers.**

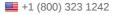
Code: 23-3070



# Riffle Box 19mm Slot Width Complete with Three Containers.

Code: 23-3100

www.ele.com







# **Riffle Box 25mm Slot Width Complete with Three Containers.**

Code: 23-3150



# **Riffle Box 30mm Slot Width Complete with Three Containers.**

Code: 23-3170



# Riffle Box 50mm Slot Width Complete with Three Containers.

Code: 23-3300



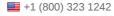
# **Riffle Box 64mm Slot Width Complete with Three Containers.**

Code: 23-3350



# **Riffle Box 7mm Slot Width Complete with Three Containers.**

Code: 23-3000







#### ADR Touch 2000 Semi-Automatic Compression Machine with Digital Readout.

Code: 36-3090/01

Product Group: General Purpose Compression Machines

• 2000 kN/450 000 lbf capacity

 $\bullet$  Tests 150 and 100 mm concrete cubes or cylinders up to 320 x 160 mm diameter

• Incorporates an ADR touch digital readout with rugged electrically driven hydraulic power pack with manual pace control as standard.

• High stability welded construction steel frame.

• Fitted with front and rear gates for operator protection.

 Maximum vertical clearance between upper & lower platen 340mm and horizontal distance is 325 mm

• Supplied with 222 mm dia removable lower platen marked for centering of cube and cylinder specimens.

Incorporating the ADR Touch digital readout, the machines are designed to test cubes and cylinders in accordance with most International Standards. Supplied fitted for cylinder testing with safety gates. When used for cube testing appropriate distance pieces according to the size of specimen to be tested are required and must be ordered separately.

#### **Further Information**

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

The Standard range of compression machines has been designed to meet the need for a simple, economic and reliable means of testing concrete.

Whilst delivering all the features and reputation of the established ADR Series with its extensive design history, the new and improved user interface provides a high quality platform for testing that enhances the performance of ELE's compression machines.

New, sophisticated electronics further the benefits of simplified operation, whilst delivering the highest levels of accuracy in testing concrete and cement/mortar samples, satisfying the needs of Quality Control Managers, Lab Managers and Technicians.

#### ACCURACY & SAVINGS

The new ADR Touch Series, with 145mm (5.7") high resolution QVGA touch screen interface and intuitive menu-driven operation, reduces the time taken to set up the machine and perform tests, reducing the time to train staff by up to 25%.

• Up to 6 sample types can be set as favorites, enabling one-touch set up for repeat testing.

• Full, QWERTY touch pad for input of test data.





Most testing errors produce lower strength results. Noncompliant loading rates can generate errors in measured strength. The user interface includes real-time display of load vs. time, further ensuring accurate and consistent test results and providing "goodness of test" data to improve traceability in your QC operations.

#### TRACEABILITY & DATA QUALITY

The ADR range now provides improved data quality and traceability in due diligence cases - it is now possible to demonstrate traceability all the way from the machine/user to the accreditation body, increasing your reputation and peace of mind - all test results now come complete with the machine serial number attached.

• Enhanced USB data communications between PC and machine - eliminating the need for download software.

- Two gigabytes of storage memory.
- Full customization of sample sizes stress calculations are automatically recalculated.

#### USER SAFETY

With full safety gates as standard, total systems diagnostics, ram run-out switches and overload warnings ensure the safety of your employees and the reliability of your machine.

#### Specification

Testing Standards
Capacity
Cubes (Concrete)
Cylinders (Concrete)
Blocks
Flexural Testing
TFV and ACV
Voltage Supply
Frame Type
Max vert. Clearance
Max hor. Clearance
Platen Sizes
Max Ram Travel

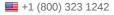
BS EN ISO 7500-1, ASTM E4 2000 kN Up to 150 mm Up to 160 x 320 mm n/a Via Flexural Frame Yes 220-240V 50/60 Hz 1Ph. Welded 340 mm 325 mm Lower, Upper 222 mm 50 mm

#### Accessories



# **100kN Flexural Fitting Kit (ADR) Used for Connecting Flexural Frames to ADR Compression Machines.**

Code: 37-6138







# 2000 kN Load Calibration Device complete with Handheld Readout Unit & Calibration Certificate ISO376

Code: 37-8315



Code: 37-5951/09



Flexible Hose Code: 5038B0027



Impact Printer Rs232 Serial Connection. Supplied Complete with 1 Paper Roll.

**ADR Touch Head for Compression Machines** 

Code: 37-4859/01



Standard Distance Piece - 100 mm Depth

Code: 37-5100









#### Standard Distance Piece - 20 mm Depth

Code: 37-4980



Standard Distance Piece - 50 mm Depth

Code: 37-5000



Standard Distance Piece - 60 mm Depth

Code: 37-5020



Standard Distance Piece - 80 mm Depth Code: 37-5050

#### Spares/Consumables

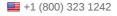


Pressure transducer, 0-700bar, 0.05 to 10v DC Output Code: 6014A0062



Pressure transducer, 0-70bar, 0.05 to 10v DC Output Code: 6014A0065

www.ele.com







#### Alternatives



# ADR Touch 1500 Compression Machine with Digital Readout.

Code: 36-0720/01







#### 100kN Flexural Fitting Kit (ADR) Used for Connecting Flexural Frames to ADR Compression Machines.

Code: 37-6138

Product Group: Accessories to connect ELE compression machines to the flexural/transverse frames

These flexural frames can be used with a wide range of ELE compression machines. Simply select one of two fitting kits designed to link the flexural frame to either the ADR-Auto range of compression machines or any other ADR compression machine.

#### **Further Information**

\*\*Not available for sale in the USA\*\*







#### Standard Distance Piece - 100 mm Depth

Code: 37-5100 Product Group: Distance Pieces

#### Further Information

\*\*Not available for sale in the USA\*\*







#### Standard Distance Piece - 50 mm Depth

Code: 37-5000 Product Group: Distance Pieces

#### Further Information

\*\*Not available for sale in the USA\*\*







### Standard Distance Piece - 20 mm Depth

Code: 37-4980 Product Group: Distance Pieces

Further Information \*\*Not available for sale in the USA\*\*







# Proctor Penetrometer Spring Type with Adaptor Stem.

Code: 29-3925 Product Group: Proctor Penetrometer, Setting Time by Penetration Resistance

Supplied complete with set of needles, 29-3929

Standards ASTM D1558

#### Further Information

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

#### Accessories

#### **Case for Proctor Penetrometer.**

Code: 29-3933



### Set of Needle Points 1 1/2 1/4 1/10 1/20 1/40 Inch Sq.

Code: 34-0810



#### Syringe with Rubber Bulb.

Code: 82-2820











#### **Case for Proctor Penetrometer.**

Code: 29-3933 Product Group: Proctor Penetrometer

An optional carrying case for the penetrometer and needle points.

Standards ASTM D1558







#### Density Plate for EL29-4300.

Code: 29-4340 Product Group: Sand Cone 6"

For 6 inch sand cone. The plate has a 6.5 inch diameter recessed hole to locate the sand cone.

Standards ASTM D1556, AASHTO T191

#### Accessories

# R

Standard Sand - 600/300  $\mu m$ 

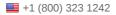
Code: 82-7401

#### Alternatives



Standard Sand - 600/300 µm

Code: 82-7401







#### Standard Sand - 600/300 µm

Code: 82-7401 Product Group: Sand Cone 6", Chemicals, Test and Reference Materials

Fraction C. No hazard. 20 kg.

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

#### Accessories

#### Density Plate for EL29-4300.



Code: 29-4340

#### Alternatives



Density Plate for EL29-4300.

Code: 29-4340







#### 6 Inch (152mm) Sand Cone.

Code: 29-4300 Product Group: Sand Cone 6"

Comprising two cones with a shutter mechanism. Supplied without sand container.

Standards ASTM D1556, AASHTO T191

#### Accessories



Code: 29-4320



Density Plate for EL29-4300.

**5 Litre Plastic Container for Sand Cone** 

Code: 29-4340



#### Standard Sand - 600/300 µm

Code: 82-7401







#### **5 Litre Plastic Container for Sand Cone**

Code: 29-4320 Product Group: Sand Cone 6" 5 litre capacity for fitting to 29-4300

Standards ASTM D1556, AASHTO T191







#### **Metal Dibber Tool**

Code: 29-5080 Product Group: Field density tools For excavating hole







### **Density Hand Pick.**

Code: 29-5120 Product Group: Field density tools For excavating in difficult ground







### **Steel Pointed Rod.**

Code: 29-5140 Product Group: Field density tools With wooden handle







### Density Spoon.

Code: 29-5000 Product Group: Field density tools For removing soil from the hole







### Density Chisel.

Code: 29-5060 Product Group: Field density tools With hardened tip







### Soft Headed Mallet.

Code: 29-5020 Product Group: Field density tools







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

Code: 26-2261 Product Group: Torvane Shear Device, Pocket Shearmeter

The shearmeter can be used on tube samples, on the sides of pits, cuttings etc. It is an invaluable tool for initial site investigation work.

#### **Further Information**

Complete with sensitive vane, standard vane and high-capacity vane. Range 0 to 1 x 0.05 kgf/cm2.

#### Specification

Vane Driver

Dial Scale

Carrying Case

Weight

1.6" (41 mm) diam. x 3.2" (81 mm) l. with vane attached. 1 kg/sq. cm (tons/sq. ft.) x 0.05 subdivisions. Plastic; 6" w. x 4" d. x 2" h. (152 x 102 x 51 mm). Net 10.5 oz. (300 g).

#### Spares/Consumables



**High-Capacity Vane** 

Code: 26-2261/14



**Sensitive Vane** 

Code: 26-2261/10









### **Standard Vane**

Code: 26-2261/12

#### Alternatives



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

Code: 26-2114/02



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

Code: 26-2114/01



Hand Vane Tester Code: 26-3346







### **High-Capacity Vane**

Code: 26-2261/14 Product Group: Torvane Shear Device 0-2.5 kg/sq. cm (tons/sq. ft.).







### **Sensitive Vane**

Code: 26-2261/10 Product Group: Torvane Shear Device 0-0.2 kg/sq. cm (tons/sq. ft.).







### **Standard Vane**

Code: 26-2261/12 Product Group: Torvane Shear Device 0-1.0 kg/sq. cm (tons/sq. ft.).







#### Hand Vane Tester

Code: 26-3346

Product Group: Hand Vane Tester

- Direct-reading scale with max-reading pointer.
- Provides quick and accurate shear strength values of cohesive soils.
- Lightweight carrying case for easy transport to the field.

The Hand Vane Tester is an accurate and portable instrument used for the determination of in-situ shear strength of cohesive soils, either on-site or on undisturbed or remoulded samples in the laboratory.

The instrument consists of a torque head with a direct-reading scale which is turned by hand. A non-return type pointer retains the test reading. A 19 mm (0.75") diameter vane and 300 mm (11.8") extension rod is supplied as standard.

#### Standards ASTM D2573, ASTM D4648

Further Information Includes 19 mm (0.75") vane, extension rod and carrying case.

#### Accessories



33 mm Diameter Vane and Carry Case

Code: 26-3346/10

#### Alternatives



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

Code: 26-2114/02







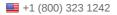
Digital Direct/Residual Shear Apparatus Complete with Lever Loading Assembly. 220-240V 50/60Hz 1Ph.

Code: 26-2114/01



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

Code: 26-2261







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

Code: 26-2114/02

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

#### **Further Information**

for 110 - 120 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





Shear Force 1,10 Vertical Load 2,20 leve Dimensions 44.7 (1,12 Amps 1.6 Watts 26 Weight Net

0.000001" (0.00001 mm) to 0.399999" (9.99999 mm) per minute. 1,100lbf. (5.0 kN) maximum. 2,200 lbf. (10.0 kN) using 10:1 lever ratio. 44.7" l. x 12 .6" w. x 49.6" h. (1,135 x 320 x 1,260 mm). 1.6 26 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



Mechanical Dial Indicator - 25 mm Range Clockwise **Movement** Code: 88-4110



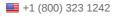
S-Type Load Cell 5 kN.for Triaxial Tests. Fitted with 5 Pin Din Plug.

Code: 27-1551



### Set of Weights 50 kg Slotted.

Code: 26-2132







# 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

#### Alternatives



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

Code: 26-2114/01



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.

Code: 26-2261



### 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







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

Code: 26-3335 Product Group: Inspection Vane

This instrument is an essential tool for civil engineers involved in site investigation work. The unit is supplied in kit form with a carrying case incorporating the measuring head, extension rods, vanes, etc. The measuring head comprises a T-handle that is spring-loaded against the extension rod adaptor. Weight 5.5 kg.

#### **Further Information**

Range 0 to 260 kPa, in carrying case with  $6 \times 0.5$  metre extension rods, 3 vanes, dummy vane and tools. Supplied complete with Calibration Certificate.

#### Spares/Consumables

#### H605 Extension Rod 0.5M and connection piece

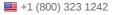
Code: 26-3335/11

#### Alternatives



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

Code: 26-2114/02







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

Code: 26-2114/01







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

Code: 26-2270 Product Group: Laboratory Vane Apparatus, Laboratory Vane Apparatus

The equipment is based on a design by the Transport Research Laboratory, England, and is available in hand or motorised versions. Stress is applied through the 12.7 x 12.7 mm vane by means of any one of four calibrated springs.

#### Standards BS 1377

#### **Further Information**

Hand-operated, complete with 4 calibrated springs and a 12.7 mm diameter x 12.7 mm long vane.

#### Accessories

#### Vane 12.7mm Diameter X 12.7mm Long.



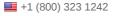
Code: 26-2279



Vane 12.7mm Diameter X 19mm Long Code: 26-2281



Vane 12.7mm Diameter X 25.4mm Long. Code: 26-2283







#### **Spares/Consumables**



Set of 4 Calibrated Springs for Laboratory Vane Apparatus. Code: 26-2275/10

Alternatives



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

Code: 26-2114/02



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

Code: 26-2114/01







# Set of 4 Calibrated Springs for Laboratory Vane Apparatus.

Code: 26-2275/10 Product Group: Laboratory Vane Apparatus, Laboratory Vane Apparatus

Standards BS 1377

#### Accessories

#### Vane 12.7mm Diameter X 12.7mm Long.



Code: 26-2279



Vane 12.7mm Diameter X 19mm Long

Code: 26-2281



Vane 12.7mm Diameter X 25.4mm Long.

Code: 26-2283







# **Guelph Permeameter Supplied Complete** with Extension Kit.

Code: 25-0650

Product Group: Guelph Permeameter, Guelph Permeameter

- Lightweight and portable
- Robust construction
- Requires only 2.5 litres of water
- Results usually within 2 hours

The Guelph Permeameter is used to obtain accurate measurements of hydraulic conductivity, soil sorptivity and soil matrix flux potential. These three factors govern how liquids will move through an unsaturated soil profile.

Recent significant advances in both the theoretical and practical techniques of measuring soil hydraulic conductivity have been made by the University of Guelph, Canada. This has resulted in the development of the Guelph Permeameter, utilising the Constant Head Well principle.

#### Standards ASTM D5126

#### **Further Information**

Guelph Permeameter Set Includes:-

- •1 Field Tripod
- •1 Well Auger
- •1 Well Tripod
- •1 Preparation Tool
- •1 Hand Pump
- •1 Extension Kit (extends depth by 800 mm)
- •1 Collapsible Water Container
- •1 Set of Instructions and Carrying Case

#### Specification

Cell

Capacity Base Top plate

Net Weight Overal Weight Permeameter Plated seamless tube 100 mm diameter x 130 mm height 3.18 Litres Porous plate with three tie rods Machined to accept smaller tubes 13.6 kg 111 kg High impact polycarbonate, molded elastomers.



Auger

Carrying Case Test Time Test Depth Hydraulic Conductivity Range 2" (50.8 mm) diam.; machined steel. Die-cut foam for parts storage. 1/2 – 2 hours. 15 to 75 cm (0.5 to 2.5 ft). 10-4 to 10-8 m/sec (10-2 to 10-6 cm/sec). Net 30 lbs. (13 .6 kg).

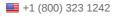
Weight

#### Accessories

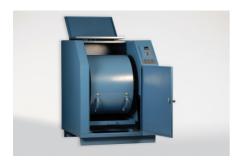


#### **Permeameter Extension Kit**

Code: 25-0655







#### Los Angeles Abrasion Machine with CE Safety Cabinet W/ Microswitches. 220-240V 60Hz 1Ph.

Code: 42-5310/06 Product Group: Los Angeles Abrasion Machine

The machine consists of a closed hollow cylindrical steel drum rotating around its horizontal axis on ball bearing units mounted on a sturdy base framework. Also the full enclosure ensures noise is minimized.

The drum is driven at a speed of between 30 - 33 rpm via an enclosed belt drive arrangement from an electric motor/gearbox unit situated on the base frame. Inside the drum a full length steel shelf is attached, accessed by a dust-proof opening.

The cylinder incorporates a removable internal shelf, one shelf position is provided to meet the requirements of both the ASTM and EN test standards.

Controls are located easily on the right-hand side of the machine at convenient operator height.

Start and stop push buttons and a subtracting revolution counter allows the user to preset the number of revolutions before an automatic stop.

# Further Information

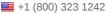
\*\*NOT AVAILABLE FOR SALE IN THE USA\*\*

#### Specification

Description

Power Supply EN 1097-2 ASTM C131 ASTM C535 NF P18-573 Los Angeles Abrasion Machine with CE Safety Cabinet 220 -240 V 60Hz 220 - 240 V AC, 60 Hz, 1 ph Yes Yes Yes Yes

#### Accessories







#### Set of 12 Abrasive Charges (ASTM).

Code: 42-5300/10



#### Set of 12 Abrasive Charges EN)

Code: 42-5305/10



### Alternatives



Los Angeles Abrasion Machine Meets ASTM and European Standards. 220-240V 50Hz 1Ph.

Code: 42-5315/01



Los Angeles Abrasion Machine Meets ASTM and European Standards. 220-240V 60Hz 1Ph.

Code: 42-5315/06



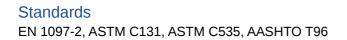




### Set of 12 Abrasive Charges (ASTM).

Code: 42-5300/10 Product Group: Los Angeles Abrasion Machine, Los Angeles Abrasion Machine

ASTM Set of 12.









### **Sulphate Test Strips**

Code: 42-2958 Product Group: Sulphate Content: Rapid Method Detection range 200 to 900 mg/l. Pack of 100.







#### **Bulk Density Measure 10 Litre**

Code: 34-2830 Product Group: Bulk Density Measures, Fresh Concrete - Bulk Density Measures

Manufactured from heavy gauge steel these bulk density measures comply with the requirements of either BS 812, EN 1097-3, 12350-6 or ASTM C138. All measures incorporate carrying handles as standard.The measures are coated against corrosion.

Standards EN 12350-6, ASTM C138, EN 1097-3

#### Further Information

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

For other bulk density measures see the aggregates section

#### Accessories



Aluminium Scoop Large

Code: 81-0220



Compacting Bar 25mm Sq X 380mm Code: 34-2910



Float - Plasterer's type Code: 81-0340







### Sample Tray - 1200 x 1160 x 50 mm

Code: 81-4230



Shovel - With flat blade Code: 81-0240

### Spares/Consumables



Soft Headed Mallet.

Code: 29-5020







### **Bulk Density Measure 3 Litre.**

Code: 42-1995 Product Group: Bulk Density Measures 3 litre capacity

Standards BS 812, ASTM C29

#### **Further Information**

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







# Wire Basket Brass with Handle Nominal 6000Cm<sup>3</sup> Capacity with 1.7mm Wire Mesh.

Code: 42-1005

Product Group: Particle Density (specific gravity) and Water Absorption for Coarse Aggregates

For BS 812 Relative Density. 200 mm diameter x 190 mm deep, 1.70 mm wire mesh.

### Standards

EN 1097-6, EN 12697-6, BS 812, ASTM C127, AASHTO T85

#### **Further Information**

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







#### Buoyancy Balance 6Kg X 0.1G. Supplied with Support Frame Water Tank & Suspension Hook.

Code: 42-1000/01

Product Group: Particle Density (specific gravity) and Water Absorption for Coarse Aggregates

The buoyancy balance system developed by ELE consists of a rigid support frame, incorporating a water tank mounted on a platform. A mechanical lifting device is used to raise the water tank through the frame height immersing the specimen suspended below the balance. The balance supplied may also be used as a standard weighing device, thus providing a versatile and comprehensive weighing system in the laboratory.6000 g x 0.1 g supplied with frame, water tank and suspension hook.

Standards EN 1097-6, EN 12697-6, BS 812, ASTM C127, AASHTO T85

#### **Further Information**

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

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

#### Accessories



200 mm Diameter Lid

Code: 79-0010



#### 200 mm Diameter Receiver

Code: 79-0020









#### 200mm Dia BS Sieve 31.5mm Perforated Plate.

Code: 79-1630



Code: 79-0310

200mm Dia BS Sieve 4.00mm Stainless Steel Mesh.



200mm Dia BS Sieve 63 Mic Stainless Steel Mesh. Code: 79-0070



200mm Dia BS Sieve 63.0mm Perforated Plate. Code: 79-1670









### **Digital Pocket Thermometer**

Code: 82-5420



#### Sample Container - Tinned Steel 10 litres

Code: 81-3060



### Sample Tray - 406 x 406 x 50 mm Code: 81-4030



# Wire Basket Brass with Handle Nominal 6000Cm<sup>3</sup> Capacity with 1.7mm Wire Mesh.

Code: 42-1005







### Sand Absorption Cone.

Code: 42-1700 Product Group: Particle Density (specific gravity) and Water Absorption for Fine Aggregates, Sand Absorption Cone and Tamper

Made of brass to the dimensions given in BS 812, ASTM C128 and AASHTO T84.

Standards BS 812, ASTM C128, AASHTO T84

#### Accessories



200mm Dia BS Sieve 75 Mic Stainless Steel Mesh.

Code: 79-0080



Funnel

Code: 82-2660









#### **Sample Container - Plastic 10 litres**

Code: 81-3540



### Sample Container - Tinned Steel 10 litres

Code: 81-3060



## Sample Tray - 305 mm Diameter x 50 mm

Code: 81-4700



### Tamping Rod.

Code: 42-1720

#### Alternatives







# Pyknometer Complete with Non-Corrodable Cone and Rubber Seal 1Kg Capacity

Code: 24-2885



### Sand Absorption Cone and Tamper

Code: 42-1725







### Tamping Rod.

Code: 42-1720

Product Group: Particle Density (specific gravity) and Water Absorption for Fine Aggregates, Sand Absorption Cone and Tamper

For use with cone. Tamping face is 25mm diameter and complies with BS 812, ASTM C128 and AASHTO T84.

Standards BS 812, ASTM C128, AASHTO T84







#### **150 Litre Drying Oven**

Code: 78-1235/01 Product Group: Oven Drying Method, Oven Drying Method, Oven Drying Method

Standards BS 2648, BS 598, BS 1377, BS 1924

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

#### **Alternatives**



100 Litre Drying Oven

Code: 78-1225/01



225 Litre Drying Oven Code: 78-1250/01



**50 Litre Drying Oven** Code: 78-1215/01



Drying Oven 425 Litre Capacity

Code: 78-0135/01







#### **Particle Size Analysis Test Set**

Code: 2824/01

Product Group: Particle Size Analysis Test Set

Set includes:

1 Mechanical Analysis Stirrer (24-4132/01). 1 Sodium Hexametaphosphate, 1 lb (24-4145). 1 Hydrometer ASTM 152H (24-4640).

1 Hydrometer ASTM 151H (24-4650).

- 2 Hydrometer Jar, 1000ml (24-4700). 1 Hydrometer Jar Bath (24-4867/01).
- 1 8" Brass Sieve #4 Mesh (79-5020).
- 1 8" Brass Sieve #10 Mesh (79-5070).
- 1 8" Brass Sieve #20 Mesh (79-5120).
- 1 8" Brass Sieve #40 Mesh (79-5160).
- 1 8" Brass Sieve #60 Mesh (79-5190).
- 18" Brass Sieve #140 Mesh (79-5240).
- 1 8" Brass Sieve #200 Mesh (79-5260).
- 18" Brass Cover Less Ring (79-5400).
- 1 8" Brass Pan (79-5410).
- 18" Brass Sieve 3/8 Mesh (79-5510).
- 1 8" Brass Sieve 3/4 Mesh (79-5560).
- 1 8" Brass Sieve 1 1/2" Mesh (79-5610).
- 1 8" Brass Sieve 2" Mesh (79-5630).
- 1 8" Brass Sieve 3" Mesh (79-5660).
- 1 Sieve Brush (79-7220).
- 1 Fine Sieve Brush (79-7225).
- 1 Wire Sieve Brush (79-7230).
- 1 Graduated Cylinder, 1000 ml (88-6012).
- 1 Beaker, Glass 600 ml (88-6110).
- 1 Evaporating Dish, 1285ml (88-6718).

#### Standards ASTM D422, ASTM E100, AASHTO T88

Further Information 220vAC, 50/60 Hz, 1ø.