

















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

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Large Capacity Sample Splitter.

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### Semi-Automatic Penetrometer

Code: 46-5295/01 Product Group: Penetration Test

As 46-5290 but incorporates Digital Automatic Controller which releases the needle assembly. The time set is displayed by a bright, easy to read display.

Standards BS 2000-49, EN 1426, EN 13179-2, ASTM D5, AASHTO T49, IP 49

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

#### Accessories

#### Constant Temperature Bath 21 - 56°C



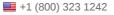
Code: 46-5500/01



Penetration Needle Code: 46-5340/C



Penetration Needle Code: 46-5360/10











#### **Penetration Tin**

Code: 46-5861



**Transfer Dish** 

Code: 46-5800

### Spares/Consumables



## **ASTM (Non-Certified) Penetration Needle**

Code: 46-5290/10







#### **Penetration Needle**

Code: 46-5340/C Product Group: Penetration Test

Hardened steel, supplied with an UKAS verification certificate. For testing to BS 2000-49 and ASTM D5. (Pack contains 1 needle only).

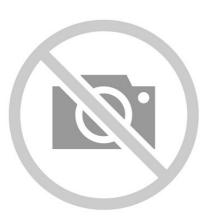
### Standards

BS 2000-49, EN 1426, EN 13179-2, ASTM D5, AASHTO T49, IP 49

#### **Further Information**







#### **Transfer Dish**

Code: 46-5800 Product Group: Bitumen Penetration Test, Asphalt Penetrometer, Penetration Test

For use with ELE Penetrometer 46-5295.

Standards BS 2000-49, EN 1426, EN 13179-2, ASTM D5, AASHTO T49, IP 49







#### **Penetration Tin**

Code: 46-5861 Product Group: Penetration Test

For penetrations below 200, approximately 55 mm diameter x 35 mm deep.

Standards BS 2000-49, EN 1426, EN 13179-2, ASTM D5, AASHTO T49, IP 49

### **Further Information**







#### **Penetration Tin**

Code: 46-5860 Product Group: Penetration Test

For penetrations between 200 and 350, approximately 70 mm diameter x 45 mm deep.

Standards BS 2000-49, EN 1426, EN 13179-2, ASTM D5, AASHTO T49, IP 49

### **Further Information**





### Constant Temperature Bath 21 - 56°C

Code: 46-5500/01 Product Group: Penetration Test

A bench mounting bath specially designed for the conditioning of bitumen samples prior to penetration tests. Incorporating a highly accurate thermostat, the bath maintains a temperature between 21 and 56°C  $\pm$  0.1°C (at ambient). An integral cover and deep tray for penetration testing are supplied as standard.

#### **Further Information**

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









## **Timer Clock**

Code: 81-0518 Product Group: Rice Test Vibrator, Watches and Clocks

Accessory

#### **Standards** EN 12697-5

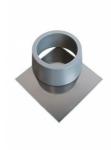
### **Further Information**

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

### **Accessories**

### **ASTM Initial Set Needle**

Code: 38-2620

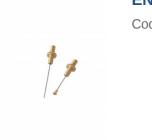


### **ASTM Vicat Mould**

Code: 38-2660







#### **EN Initial and Final Set Needle**

Code: 38-2110



### **Vibrating Hammer**

Code: 47-0455/01

### Spares/Consumables



### **Consistency Plunger**

Code: 38-2010/10

### **Alternatives**



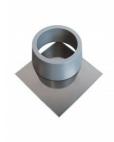
#### **ASTM Initial Set Needle**

Code: 38-2620









### **ASTM Vicat Mould**

Code: 38-2660

## EN Initial and Final Set Needle

Code: 38-2110



1 ×

## Vibrating Hammer

Code: 47-0455/01





### **BS/EN Ring and Ball Apparatus**

Code: 46-4605 Product Group: Ring and Ball Apparatus

With 2 shouldered pattern rings, 2 ball-centring guides and 2 balls. The apparatus has a support frame and is retained in a heat resistant container.

#### Standards

EN 1427, BS 2000-58, UNI 4161, UNE 7111, DIN 52011, NFT66-008, AASHTO T53, ASTM D36, BS 2000

#### Further Information

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

#### Accessories



#### **Magnetic Stirrer**

Code: 46-4825/01



### Thermometer

Code: 82-5272











### Thermometer

Code: 82-5274





#### **Magnetic Stirrer**

Code: 46-4825/01 Product Group: Ring and Ball Apparatus

Utilises a rotating magnetic field to induce variable speed stirring action. A built-in regulating transformer provides fine temperature control of liquid up to a maximum temperature of +150°C. The unit is suitable for use with the Ring and Ball Apparatus.

Standards

EN 1427, BS 2000-58

#### **Further Information**







#### Thermometer

Code: 82-5272 Product Group: Ring and Ball Apparatus, Non Hazardous Glass Thermometers

Mercury-free with a range of -10.0°C to + 210.0°C and graduated every 1°C. Immersion up to 76 mm

Standards EN 1427, BS 2000-58

### **Further Information**







#### Thermometer

Code: 82-5274 Product Group: Ring and Ball Apparatus, Non Hazardous Glass Thermometers

Mercury-free with a range of  $-10.0^{\circ}$ C to  $+ 210.0^{\circ}$ C and graduated every 1°C. Total immersion possible.

Standards EN 1427, BS 2000-58

### **Further Information**





#### Rotatest 3000

Code: 45-3815/01 Product Group: Asphalt Centrifuge Extractors

Centrifuge extractor used to determine the quantitative amount of bitumen in bituminous paving mixtures. Variable speed control from 0 to 3600 rpm through the front panel mounted control knob and brake control included for rapid deceleration.

Precision machined aluminium removable cover with integral cup for adding solvent, with sealed cast aluminium housing. For 220 V AC, 50 - 60 Hz, 1ph.

Standards EN 12697-1, ASTM D2172, AASHTO T164

### **Further Information**

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

3000 g capacity. Supplied with 100 Filter Discs. For 220 V AC, 50 - 60 Hz, 1ph.

#### Accessories



Bowl - 2.5 litre Code: 81-5020



**Desiccator - Non-vacuum** 

Code: 82-2100









### **Evaporating Dish - 100 x 40 mm**

Code: 82-1970



#### **Filter Discs Pack of 100**

Code: 45-3807



Hotplate Code: 78-2950/01



## Measuring Cylinder - Glass 100 ml Code: 82-0380



### Measuring Cylinder - Glass 1000 ml Code: 82-0500











### Sample Tray - 306 x 306 x 38 mm

Code: 81-4020



Silica Gel Code: 82-7091



Volumetric Flask - 100 ml Code: 82-1000



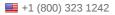
Volumetric Flask - 1000 ml

Code: 82-1060

#### **Alternatives**



Muffle Furnace Code: 83-4170/01











**Rotatest 1500** Code: 45-3810/01





### **Cleveland Flash Cup Apparatus**

Code: 46-3310/01 Product Group: Cleveland Flash Cup Apparatus

The ELE Semi-Automatic Cleveland Open Cup flashpoint Tester is equipped with an electrically heated cup (with a variable control to set temperature rise rate), a button operated and electrically driven sweep arm and a test flame for use on natural gas. Bench mounted, the unit is incorporated in an easy to clean stainless steel case.

#### Standards

BS 2000-36, EN ISO 2592, ASTM D92, IP 36

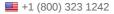
#### **Further Information**

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

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

#### **Specification**

Temperature Range Power Ramp rate Voltage Size (HxWxD) Weight Ambient to 400°C 500 W maximum Variable, manually controlled 220/240 V, 50/60 Hz 33 x 31 x 29 cm 6.5 kg





#### Bench-Mounting Mixer 5 Litre Capacity Complete with Bowl Beater and Whisk. 220-240V 50Hz 1Ph.

Code: 23-6191/01 Product Group: Sample Mixers, Mixing, Sample Mixers

The mixer has two electrically switched mixing speeds which obviates the need to switch off during speed selection. The mixing head comprises a beater which contra-rotates about a central shaft using planetary gearing. A lever-acting lifting device facilitates the insertion and removal of the bowl. This mixer is suitable for the mixing of soil samples, mortar, bituminous mixtures and associated materials where comparatively small samples are being prepared. Supplied with stainless steel bowl, beater and whisk.

### Standards BS 598-107, BS 1377-1, BS 1924-1

#### Further Information

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

#### Specification

Dimensions	545 x 380 x 550 mm
Beater Speeds (rpm) low, intermediate, high	136, 281, 580
Central shaft speeds (rpm) low, high	60, 124, 255
Rated power	500 W
Weight	20.2 kg

#### Accessories



#### **Isomantle Electric Heater**

Code: 45-5580/01



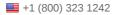


## Spares/Consumables

#### Stainless Steel Bowl 4.73 Litres.

Code: 23-6191/10







### **Isomantle Electric Heater**

Code: 45-5580/01 Product Group: Sample Mixers, Mixing, Sample Mixers

For use with 23-6191 Bench Mounting Mixer.

Standards EN 12697-35

### Further Information





#### **Thermocouple Wire**

Code: 82-5440/10

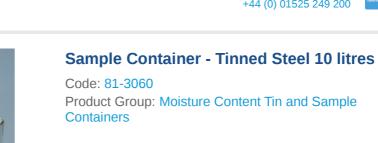
Product Group: Hand-held Digital Thermometers

Accessory. 3 metre length, suitable for 82-5440 Digital Thermometer.

The thermocouple is NiCr/NiAi PTFE covered with a naked exposed junction. Supplied with a coupling unit the maximum reading is 250°C with a tip diameter of 0.5 mm. (Pack of 5).

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





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

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## Sample Container - Tinned Steel 2.5 litres

Code: 81-3040 Product Group: Moisture Content Tin and Sample Containers

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







### **Stillson Wrench Size 14.**

Code: 23-1543 Product Group: Extension Rods, Handles and Tools Size 14, for use with 23-1541. Two required.







# Handle and T Piece for Use with EL23-1541.

Code: 23-1547 Product Group: Extension Rods, Handles and Tools







### Jarring Link for Driving Sample Tubes.

Code: 23-1587 Product Group: Extension Rods, Handles and Tools For driving sample tubes







# Spiral Auger 40mm Diameter. One Piece Model

Code: 23-1617 Product Group: Soil and Gravel Auger Heads

40 mm diameter x 200 mm long with rod and T-piece attached. Overall nominal length 1250 mm.



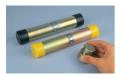


#### 100mm Dia Soil Auger Head

Code: 23-1501 Product Group: Soil and Gravel Auger Heads

Constructed of heavy-duty steel plates; partly interlocked at the cutting end and suitable for cohesive soils.

#### Accessories



38mm Diameter Sample Tube 230mm Long Complete with End Caps.

Code: 23-1577



Extension Rod 27mm Diameter 1m Long. for Use with Auger Heads

Code: 23-1541



Handle and T Piece for Use with EL23-1541. Code: 23-1547



Jarring Link for Driving Sample Tubes. Code: 23-1587



Spiral Auger 40mm Diameter. One Piece Model Code: 23-1617









Stillson Wrench Size 14. Code: 23-1543

### Alternatives



### 150mm Dia Gravel Auger Head.

Code: 23-1517



# 150mm Dia Soil Auger Head

Code: 23-1504



### 50mm Dia Dutch Soil Auger Head.

Code: 23-1525





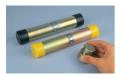


### 150mm Dia Soil Auger Head

Code: 23-1504 Product Group: Soil and Gravel Auger Heads

Constructed of heavy-duty steel plates; partly interlocked at the cutting end and suitable for cohesive soils.

### Accessories



38mm Diameter Sample Tube 230mm Long Complete with End Caps.

Code: 23-1577



Extension Rod 27mm Diameter 1m Long. for Use with Auger Heads

Code: 23-1541



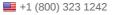
Handle and T Piece for Use with EL23-1541. Code: 23-1547



Jarring Link for Driving Sample Tubes. Code: 23-1587



Spiral Auger 40mm Diameter. One Piece Model Code: 23-1617









Stillson Wrench Size 14. Code: 23-1543

### Alternatives



## 100mm Dia Soil Auger Head

Code: 23-1501



## **150mm Dia Gravel Auger Head.** Code: 23-1517



## 50mm Dia Dutch Soil Auger Head.





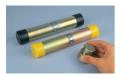


### 50mm Dia Dutch Soil Auger Head.

Code: 23-1525 Product Group: Soil and Gravel Auger Heads

Constructed of heavy-duty steel plates; partly interlocked at the cutting end and suitable for fine, silty sand.

### Accessories



38mm Diameter Sample Tube 230mm Long Complete with End Caps.

Code: 23-1577



Extension Rod 27mm Diameter 1m Long. for Use with Auger Heads

Code: 23-1541



Handle and T Piece for Use with EL23-1541. Code: 23-1547



Jarring Link for Driving Sample Tubes. Code: 23-1587



Spiral Auger 40mm Diameter. One Piece Model Code: 23-1617









Stillson Wrench Size 14. Code: 23-1543

### Alternatives



## 100mm Dia Soil Auger Head

Code: 23-1501



## **150mm Dia Gravel Auger Head.** Code: 23-1517



## 150mm Dia Soil Auger Head





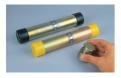


### 150mm Dia Gravel Auger Head.

Code: 23-1517 Product Group: Soil and Gravel Auger Heads

Comprises one piece steel casting with a spiral point and two plates designed to close when lifting samples from the borehole; suitable for gravel and sand.

### Accessories



38mm Diameter Sample Tube 230mm Long Complete with End Caps.

Code: 23-1577



Extension Rod 27mm Diameter 1m Long. for Use with Auger Heads

Code: 23-1541



Handle and T Piece for Use with EL23-1541. Code: 23-1547



Jarring Link for Driving Sample Tubes. Code: 23-1587



Spiral Auger 40mm Diameter. One Piece Model Code: 23-1617









Stillson Wrench Size 14. Code: 23-1543

### Alternatives



## 100mm Dia Soil Auger Head

Code: 23-1501



# 150mm Dia Soil Auger Head

Code: 23-1504



## 50mm Dia Dutch Soil Auger Head.







# Extension Rod 27mm Diameter 1m Long. for Use with Auger Heads

Code: 23-1541

Product Group: Extension Rods, Handles and Tools

With tube connector, constructed of steel tubing approximately 1 metre long.

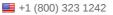






## 38mm Diameter Sample Tube 230mm Long Complete with End Caps.

Code: 23-1577 Product Group: Extension Rods, Handles and Tools Supplied without Adaptor, but with two end caps





### Large Capacity Sample Splitter.

#### Code: 23-3425

Product Group: Large Capacity Sample Splitter, Large 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).

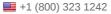
#### **Further Information**

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

#### **Specification**

Capacity 1 cu. ft. (0.028 m3); for sand sizes up to 4" (102 mm). Lever-actuated, clamshell Hopper design. 48 aluminum bars, 1/2" (13 Chute Bars mm) width. 24 " (610 mm) overall width. Chute Area Adjustable; 1/2", 1", 1-1/2", 2", Chute Openings 3", 4", or 6". Frame Welded, heavy-gage steel. Chute Attachment 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 0 mm). Material Pans Two included; 25 -3/4" l. x 9" w. x 6-1/2" h. (654 x 22 9 x 165 mm). 29" l. x 19" w. x 39" h. (737 x **Overall Dimensions** 483 x 999 mm). Shpg. 142 lbs. (64 kg). Weight

### Accessories











### Sample Bag - 10" x 18" (254 x 457 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







# 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





#### Rolling Thin-Film Oven 220-240V 50/60 Hz

Code: 46-4150/01

Product Group: Asphalt and Bitumen Ovens

The Rolling Thin-Film Oven (RTFO) procedure provides simulated short term aged asphalt binder for physical property testing. Asphalt binder is exposed to elevated temperatures to simulate manufacturing and placement ageing. The RTFO also provides a quantitative measure of the volatiles lost during the ageing process.

The exterior is constructed from sheet steel finished in an easy clean powder coated paint and the interior chamber is made from stainless steel.

The control system comprises of a microprocessor digital controller and overheat thermostat with calibrated scale and tamper-proof lock.

#### **Further Information**

- Complies to the requirements of ASTM D2872
- Internal dimensions (mm): 380 high x 480 wide x 440 deep
- External dimensions (mm): 800 high x 710 wide x 660 deep (add 40mm for door handle)
- Double wall construction with high density thermal insulation
- Non-rusting grade 304 stainless steel interior
- · Easy clean powder painted steel exterior in light grey (RAL 7035) textured finish
- Top mounted fan constructed with an air plenum as described in ASTM D2872
- Fitted with a squirrel-type fan blade for better uniformity of air and temperature distribution
- Equipped with air jet for blowing heating air into each bottle at its lowest point of travel
- Base mounted elements
- · Vented to atmosphere
- · Single front opening, side hinged door with positive quarter turn latching mechanism
- · Double glazed window in door for viewing the test chamber

Top mounted controls comprise:

- Dual display microprocessor digital control
- Independent overheat thermostat
- Mains switch
- · Flow meter to control air flow
- Indicator lamps
- 1500 watts
- Supplied with built-in 305mm diameter vertical circulator carriage for 8 sample containers
- Glass samples rotate at 15 rpm ±0.2rpm (glass containers supplied separately)
- Temperature is controlled and pre-set at 163°C ± 1°C

#### Specification

Max Temp (°C) Dimensions: Internal (HxWxD) 163°C ± 1°C (preset) 380 x 480 x 440 mm

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Dimensions: External (HxWxD) Insulation Internal material Max power (W) 800 x 710 x 660 mm Double wall 304 stainless steel 1500

