GEOTECHNICAL
TESTING EQUIPMENT

THE BEST IN TEST

SOIL

CATALOG 2019

Soil

Soil is one of the oldest forming structures that our planet is formed from. Soil is a loose rocky material that is vastly used in the construction industry. Hence it is very important to test the ground soil before construction and to know the type and classification of the soil before any project.

The type of soil can be identified by several parameters one of which the percentage of clay, siltor sand found in its composition. This classification will determine the characteristics of the soil used in the civil engineering project.
Other physical parameters such as moisture content, shear strength, elasticity, specific gravity, density, degree of compaction, penetration resistance, consistency, bearing capacity, hydraulic conductivity, permeability and consolidation can effect the soil characteristics and behaviour during construction.

The testing equipment described in this section are carefully designed and manufactured to the highest international standard necessary to achieve accurate and repeatable results in testing soil material.

Soil Color Chart

EN 1426; ASTM D5; AASHTO T49

DESCRIPTION:

The Color Chart is used to judge the color of rocks, archeological specimens and soil samples.

It includes are 115 color chips with the Munsell numerical designation for identifying the range of rock colors.

Works with either wet or dry specimens. Excellent for describing the color of medium to fine-grained rocks.

Also helpful when working with coarse-grained rocks.

A neutral mask is included for isolating individual colors.

MAIN FEATURES:

- Tabbed design helps find information quickly
- Allows easy visual comparison of soil colors
- Water-resistant
- Light-weight

ORDERING:

SL 0100
Soil Color Chart

SL 0101
Tropical Soil Color Chart

SL 0102
Rock Color Chart

TECHNICAL SPECIFICATIONS:

Product Dimensions	152 x 203 mm W x H
Estimated Shipping Weight	0.91 kg

Soil Sampling Kit

EN 1426; ASTM D5; AASHTO T49

DESCRIPTION:

The Soil Sampling Kit is designed to obtain samples for soil investigation and exploration purposes. The set provide all the items needed in a convenient carrying case.

We offer several models for Soil Sampling Kit that can suit all purposes.

Basic Mini Soil Sampling Kits includes:
One regular auger, one mud auger, four 3' extensions, one rubber-coated cross handle, and one poly-canvas case.

Environmental Soil Sampling Kit includes: three 3-1/4" dia. thread-on augers (regular, mud and sand), one split-core sampler with slip wrench, one cross handle, and three 4' extensions

Soil Core Sampler Kit with Hammer Attachment kits includes: one butyrate retaining liner and two polyethylene liner caps.

Basic Soil Sampling Kit includes: three 3-1/4" dia. thread-on augers (mud, soil and sand), 2" dia. x 6"L thread-on core sampler with hammer attachment, butyrate liner, three 4'L thread-on extensions, rubber-coated thread-on cross handle, 2" cleaning brush, and two crescent wrenches.

MAIN FEATURES:

- Stainless steal
- Easy to use

ORDERING:

SL 0103
Basic Soil Sampling Mini Kits

SL 0104
Environmental Soil Sampling Kit

SL 0105
Soil Core Sampler Kit

SL 0106
Basic Soil Sampling Kit

Power Auger Head

DESCRIPTION:

The Power Auger Head makes it easy to quickly dig holes for fence posts, signs, landscaping and soil sampling.

The Power Auger Head has an Ergonomic designed for optimum comfort.

It comes with a 4.5 KW two stroke engine, equipped with a lever preventing accidental acceleration and a Quick-fit spigot-socket coupler for swift attachment, replacement of bits and 3 Augers 4', 6' 10'.

MAIN FEATURES:

- Stainless steal
- Easy to use

ORDERING:

SL 0107
Power Auger Head complete

ACCESSORIES:

SL 0108
Auger 60 mm dia x 1 m long

SL 0108-1
Auger 80 mm dia x 1 m long

SL 0108-2
Auger 100 mm dia x 1 m long

SL 0108-3
Auger 150 mm dia x 1 m long

SL 0108-4
Auger 200 mm dia x 1 m long

SL 0108-5
Extension rod

TECHNICAL SPECIFICATIONS:

Displacement	(cc)52cc
Fuel type 25	1 oil / fuel premix, 89+ Octane unleaded
Horsepower	(hp)2
Speed (max)	320 RPM
Maximum Torque	45 ft. lbs.
Sound rating	102.4 Db
Product Height	13-3/8 in.
Product Length	11 in.
Product Weight	20.10 lb.
Product Width	21-1/2 in.

Water Level Indicator

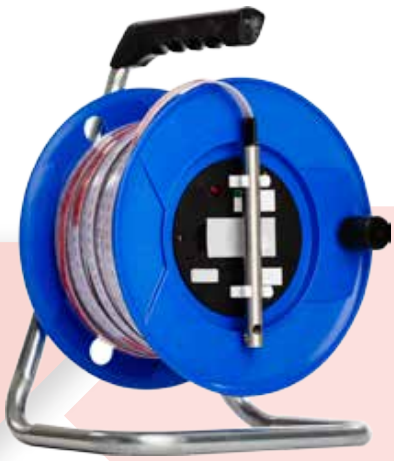
EN 1426; ASTM D5; AASHTO T49

DESCRIPTION:

The water level indicators are used to determine the water level in boreholes and wells.

Drum mounted, with an ON/OFF switch indicator and audio signal when probe touches the water.

The cable is marked at intervals and is battery operated.



MAIN FEATURES:

- Easy-to-use

ORDERING:

SL 0109
Water level indicators 50m

SL 0110
Water level indicators 100m

SL 0111
Water level indicators 150m

SL 0112
Water level indicators 200m

Water Level Indicator

EN 1426; ASTM D5; AASHTO T49

TECHNICAL SPECIFICATIONS:

Measuring Range	50m, 100m, 150m, 200m
Accuracy	1 cm for a measuring range of 100m
Reproducibility	0.5 cm
Pressure Tightness	10 bar (up to 50 var possible)
Probe	Chromium-plated brass
Standard Version	14 mm dia. 140 mm long
Special Version	10 mm dia. 320 mm long
Cable	Polyethylene with 2 steel cores (anticorrosive) with polyamide-coated steel tape, graduation in millimeters (mm), in centimeters (cm) and numbering in decimeters in black color, the meters (m) figures are red color on yellow-green base
Cable Drum	Hard Rubber, plastic material and temperature resistant
Power Supply	3V DC.2 baby-cells each 1.5V

Proctor Penetrometer (spring type)

ASTM D 1558

DESCRIPTION:

The Proctor Penetrometer is used for determining the penetration resistance of fine-grained soils.

The unit consists of a special calibrated spring dynamometer with a pressure-indicating scale on the stem of the handle.

It comes with a stainless steel adaptor stem for larger needles.

The pressure scale is calibrated to 100 lbs. by 1 lb. subdivisions. There is a major division located at each 10 lb. interval.

A sliding ring on the stem indicates the maximum load obtained during the test.

MAIN FEATURES:

- Scale graduations
- Threaded needles are interchangeable

ORDERING:

SL 0113
Proctor penetrometer complete set with needle point.

ACCESSORIES:

SL 0113-1
Set of spare needle point (0.25, 0.5, 1, 1.5, 2, 3, 5, 6 cm2)

TECHNICAL SPECIFICATIONS:

Load scale	0 - 55kg
Subdivision with max load indicator	1kg
Weight approx.	3.5kg

Proving Ring Penetrometer

DESCRIPTION:

Used to determine the bearing capacity of sub grades, or to measure soil compaction.

Supplied complete with calibration chart, 30°, 6.45 sq cm cone; 1.1kN capacity proving ring; brake type dial indicator, holds final reading until manually released; 19mm dia shaft, graduated at 152mm intervals; 19mm dia extension rod, graduated at 152mm intervals; cast aluminum.

MAIN FEATURES:

- Light and easy to handle in the field.

ORDERING:

SL 0114
Proving ring Penetrometer complete

TECHNICAL SPECIFICATIONS:

Weight (approx.)
4kg

Poket Dial Penetrometer

DESCRIPTION:

The Pocket Penetrometer is used in field exploration and comparing similar types of soil.

Classifying cohesive soils in terms of consistency and estimation of approximate unconfined compressive strength and shear strength.

The cylindrical tip of 0.32 cm2 area penetrate into the soil up to 6mm market point. A cursor on the scale reads directly unconfined compressive strength in kgf/cm2.

MAIN FEATURES:

- Portable
- Easy-to-use

ORDERING:

SL 0116
Heavy Duty Pocket Penetrometer

SL 0117
Heavy Duty Pocket Penetrometer with three interchangeable tips

TECHNICAL SPECIFICATIONS:

	SL 0113	SL 0114
Tip Diameters	4.5 mm dia. for very hard soil; 6.35 mm for medium and soft soil; 8.98 mm for soft soil.	
Measuring range	0 to 1000 kPa	0 to 500 kPa
Dimensions (assembled)	210 mm lenght x 20 mm dia. approx.	20 mm dia. x 173 mm length
Weight approx.	0.5 kg	0.5 kg

Dynamic Cone Penetrometer

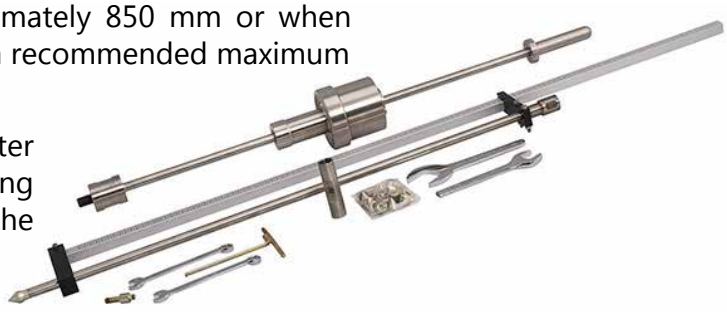
BS 1377, 1924, 812; EN 932-1

DESCRIPTION:

The Dynamic Cone Penetrometer is used for the rapid, in situ measurement of structural properties of existing road pavement constructed with unbound materials.

It incorporates an 8 kg weight dropping through a height of 575 mm and 60° cone having a diameter of 20 mm. with the standard DCP measurements can be made down to a depth of approximately 850 mm or when extension shafts are used to a recommended maximum depth of 2 m.

Readings are usually taken after a set number of blows, changing the number according to the strength of the layer being penetrated.



MAIN FEATURES:

- Efficient method

ORDERING:

SL 0118
Dynamic Cone Penetrometer set

ACCESSORIES:

SL 0119
Cones

SL 0119-1
Extension Rods

TECHNICAL SPECIFICATIONS:

Dimensions	1200x350x200 mm
Weight (approx.)	30 kg

Static Cone Penetrometer

DESCRIPTION:

The static Cone penetrometer is use to evaluate the consistency of soils, their level of compaction and the bearing capacity of shallow foundations and pavement subgrades.

Specifically developed for use in fine grained soils, particularly soft soils, to depths of 30 feet. They use a 60°cone with an area of 1.5 cm². An optional cone with a 3 cm² area is available for use in very soft soils. Dual rod construction isolates cone resis tance from shaft friction
Pressure gauge ranging from 0 to 70 kg/cm² reads cone resistancedirectly, eliminating need for proving ring conversions. Stainless steel andanodized aluminium construction for reliable performance.

MAIN FEATURES:

- Low soil friction
- Simple to use
- Uses 60° penetration cones with 1.5cm² or 3.0cm² area
- Direct gauge reading

ORDERING:

SL 0120
Static cone penetrometer

Standard model include: A 60^0 cone with a maximum area of 1.5 cm2 A started Rod Assembly designed to withstand an axial force of 250 lbf 340 N.m) maximum, Pressure gauge marked in kg/cm², Operating Instruc tions and parts list

TECHNICAL SPECIFICATIONS:

Dimensions	Penetrometer: 610 x 203 mm Starter Rod: 89 x 610 mm
Estimated Shipping Weight	3.63 kg

Dial Penetrometer

BS 1377, 1924, 812; EN 932-1

DESCRIPTION:

The Dial Penetrometer is used to check the penetration power of soil. The Dial Penetrometer comes in three different versions, the dial has a maximum value holding system with 0 setting by push button.

The Dial dia is 60 mm, with peak holding features.

MAIN FEATURES:

- Provides unconfined compressive strength
- Tests a wide range of cohesive soils
- Non-corrosive
- User-calibrated dial

ORDERING:

SL 0121
Range 0 to 5 kgf/cm2, plungers dia is 6.35 mm

SL 0122
Range 3 to 15 kgf/cm2, plungers dia is 6.35 mm

SL 0123
Range 0 to 6 kgf/cm2, plungers dia is 6.35 mm - 10 - 15 - 20 - 25

TECHNICAL SPECIFICATIONS:

Penetrometer Dimensions	63 x 114mm Dia. x H
Net Weight	369 g
Estimated Shipping Weight	0.45 kg

Pocket Shear Vane Device

DESCRIPTION:

The Pocket Shear Vane Apparatus is widely used to perform onsite or lab measurements of excavations covering trenches and test pits, thin-wall or split core samples, by providing a quick and efficient method for shear strength measurements.

Supplied complete with:
Standard 25mm dia, vane range 0 to 10N/cm^2, Sensitive Vane adaptor, range 0 to 2N/cm^2, High capacity vane adaptor range 0 to 25N/cm^2 in a plastic carrying case.

MAIN FEATURES:

- Suitable for laboratory and site usage.
- Used for determining the shear strength of cohesive soils.

ORDERING:

SL 0124
Pocket Shear Vane apparatus Complete Vane

TECHNICAL SPECIFICATIONS:

Van type	Range
Standard 25 mm Diameter Vane	0-10 N/cm'
Sensitive Vane Adaptor	0-2 N/cm'
High Capacity Vane Adaptor	0-25 N/cm'
Dimensions	240x210x50 mm
Weight (approx.)	1,5 kg

Field Inspection Shear Test

ASTM D2573

DESCRIPTION:

The Field Inspection Vane Tester can be used to determine the maximum shearing force that can be exercised on a soil.

Measurement in the field (on the surface, in profile pits or at the bottom of bore holes) as well as in the laboratory (on samples) are possible.

The shear stress measured can be read on a clearly readable scale ring.

In soft soils it is not necessary to make a bore hole first. In order to determine the friction on the extension rods a dummy vane is available in these situations.

MAIN FEATURES:

- Unconfined compressive strength
- Heavy duty, stainless steel construction

ORDERING:

SL 0125
Field Inspection Vane Testing Kit

TECHNICAL SPECIFICATIONS:

Maximum measuring depth	3 m
Maximum shear stress	200 kPa
Measuring accuracy	< ± 10%
Reading accuracy	1%
Registration type	manual
Package size	56 x 12 x 5 cm
Vane size (shear stress)	5.12, 8, 12.9 cm²
Weight	2.95 kg

Field inspection vane tester, standard set for measurements to 200 kPa (20 t/m2) and a depth of 3m, complete with 3 vanes (16x 32mm, 20x40 mm and 25.4x50.8 mm), dummy vane, extension rods, tools and carrying bag

Laboratory Vane Apparatus

ASTM D4648; BS 1377

DESCRIPTION:

The Laboratory Vane Apparatus is used to determine the shear strength in soft soils of undisturbed or remolded samples.

The hand operated frame has a 200mm diameter base plate capable of accepting standard specimen molds and sample tubes. Scales indicate the load application and any vane deflection.

It is also available with a motorizing attachments that can be fitted to automate the test process and provide better accuracy.

If purchased with the machine, the motorizing attachment will be fitted and tested. Alternatively, the motorizing attachment can be purchased at a later date and easily fitted at the customer site.

MAIN FEATURES:

- Rapid way of determining the shear strength in soft soils
- Easy to use
- Manual Unit can easily be updated to a motorized version
- Two calibrated springs provided
- Supplied with 12.7mm x 12.7mm vane

TECHNICAL SPECIFICATIONS:

Dimensions	200 X 240 X 560mm
Weight (approx.)	10kg

ORDERING:

SL 0126
Manual Laboratory Vane Apparatus

SL 0127
Motorized Laboratory Vane Apparatus

ACCESSORIES:

SL 0128
Vane 12.7 mm x 12.7 mm

SL 0129
Vane 12.7 mm x 19 mm

SL 0130
Vane 12.7 mm x 25.4 mm

SL 0131
Attachment to hold a sample tube of 38 mm or 100 mm dia

Laboratory Mixer

BS 598-107, 1377-1, 1924-1, EN 12697-35

DESCRIPTION:

This Laboratory Mixer is suitable for sample preparation of soils, bituminous concrete and cement mortars.

The Laboratory mixer is a planetary beater type, where the flat beaters rotate in the opposite direction to the orbit around the inside of the mixing bowl.

The hand lever can raise, lower and lock the bowl at the desired position. Adjustment is allowed for proper clearance between the bowl and the beater.

It is available in several sizes :
5, 7.5, 10, 20, 30 ltrs.

MAIN FEATURES:

- Uniform mixing
- Direct gear drive transmission
- Three speeds set
- Control lever

TECHNICAL SPECIFICATIONS:

Dimensions	700x750x800 mm
Weight (approx.)	75 kg
Power	550 W

ORDERING:

SL 0132
Laboratory Mixer 5 ltrs

SL 0133
Laboratory Mixer 7.5 ltrs

SL 0134
Laboratory Mixer 10 ltrs

SL 0135
Laboratory Mixer 20 ltrs

SL 0136
Laboratory Mixer 30 ltrs

ACCESSORIES:

SL 0137
Spare Stainless Bowl 5 ltrs

SL 0137-1
Spare Stainless Bowl 7.5 ltrs

SL 0137-2
Spare Stainless Bowl 10 ltrs

SL 0137-3
Spare Stainless Bowl 20 ltrs

SL 0137
Spare Stainless Bowl 30 ltrs

Porcelain Mortar and Rubber Head Pestle

ASTM D420; BS 1377:2; BS 1924:1

DESCRIPTION:

The Porcelain Mortar and Rubber Head Pestle is used for sample reduction by gently crushing individual particles.

ORDERING:

SL 0138
Porcelain Mortar and Rubber Head Pestle complete set

ACCESSORIES:

SL 0139
Spare Porcelain Mortar 125 mm dia

SL 0140
Spare Rubber Head Pestle

TECHNICAL SPECIFICATIONS:

Weight (approx.)
1Kg

Laboratory Soil Grinder

ASTM D4318

DESCRIPTION:

It is an efficient method for reducing agglomerations of caked soil to individual grains, and much less labor intensive than manual mortar and pestle operation. It preserves true grain size for accurate and repeatable test results.

The hopper has a capacity of about 1 pint (0.6L) and features a manually operated gate to control feed rate to the grinding chamber.

Operation is simple, just load the hopper, start the grinder and use the gate to control material feed.

A #10 (2.0mm) perforated stainless steel plate is included and retains larger particles. Most soil types are processed completely in less than 30 seconds per pint.

The reliable direct-drive motor and grinding unit is mounted on a sturdy steel tripod stand. An in-line switch controls motor operation.

MAIN FEATURES:

- Fast, efficient sample preparation of soils
- Manually-operated gate controls feed rate
- Processes most soil types in less than 30 seconds

ORDERING:

SL 0141
Laboratory soil grinder

ACCESSORIES:

AS 0142
Stainless steel perforated plates No. 10

AS 0143
Stainless steel perforated plates No. 4

AS 0144
Stainless steel perforated plates No. 35

TECHNICAL SPECIFICATIONS:

Dimensions	305x381x483 mm
Estimated Shipping Weight	15kg

Sieves Shaker

EN 932-5; ISO 3310-1

DESCRIPTION:

The Sieve Shaker imparts a circular motion to the material being sieved so that it makes a slow progression over the surface of the sieve.

At the same time a feature of the rapid vertical movement agitates the sample which helps to clear the sieve apertures and avoid them blinding.

The shaker is fitted with timer which can be pre-set for any duration up to 60 minutes.

This unit will accept 127inch, 200mm and 300mm sieves dia.

Wet sieving kits in the appropriate sizes may be used with this shaker.

MAIN FEATURES:

- Sieve capacity: up to twelve 200 mm (8″) and up to eight 300 mm (12″) sieves plus pan and cover.

ORDERING:

SL 0145
Sieve Shaker with Time Adjustment, for 200 mm (8") & 300 mm (12") dia. frame sieves

SL 0145-1
Sieve Shaker with Frequency and Time Adjustment, for 200 mm (8") & 300 mm (12") dia. frame sieves

Two models are available: One with digital timer and another one with digital timer and vibrating frequency controller.

Electromagnetic Sieve Shaker

EN 932-5; ISO 3310-1

DESCRIPTION:

The Sieve Shaker is powered by an electromagnetic drive which has no rotating parts to wear making it maintenance free and extremely quiet in operation.

The vibratory action produced by the power unit moves the sample over the sieve in a unique way producing faster more efficient sieving, while the rapid vertical movements also help keep the apertures from pegging.

The digital controller is used to set both the process time and amplitude setting while a further control enables the vibration to run continuously or intermittently.

MAIN FEATURES:

- High screening efficiency
- Strong-vibrating force
- Simple structure and easy maintenance

ORDERING:

SL 0146
Electromagnetic sieve Shaker with Time Adjustment, for 200 mm (8") & 300 mm (12") dia. frame sieves

SL 0146-1
Electromagnetic sieve Shaker with Frequency and Time Adjustment, for 200 mm (8") & 300 mm (12") dia. frame sieves

Light Weight Deflectometer

ASTM E2835-11; TP-BF-StB part 8.3; ZTV E-StB 09; ZTV T-StB 95; ZTV A- StB 97; RVS 8; RIL 836

DESCRIPTION:

The dynamic plate load test performed with the Lightweight deflectometer is used to determine the soil bearing capacity and compaction quality of soils and non-cohesive subbases, as well as for soil improvement applications.

Built-in soil layers can easily be tested without load abutment, facilitating quick assessments of test lots even under limited space conditions.

The test method is suited to coarse-grain and mixed grain soils with a maximum grain size of 63mm and can be used to determine the dynamic modulus of deformation of soil in the range Evd = 15 to 70 MN/m².

Applications
- Road and railway construction, earth moving
- Quality assurance in canal construction
- Compaction monitoring in pipe trenches and cable ducts
- Testing of pavement bedding
- Testing of foundation backfill
- Quality inspection in boreholes
- Testing of modulus of deformation in line with soil exploration

MAIN FEATURES:

- Fast and cost-saving: maximum 2 minutes per measuring point
- No vehicle required
- Immediate on-site evaluation of test results
- It can be easily operated and carried by one person only
- Testing can be achieved in difficult to reach locations

ORDERING:

SL 0115
Lightweight deflectometer used to determine the bearing capacity and compaction quality of soils and non-cohesive subbases. Printer & PC-Software

ACCESSORIES:

SL 0115-1
Transport cart for easier on-site transport of the Lightweight deflectometer between the measuring points

SL 0115-2
Magnetic base plate for proper positioning of loading unit

SL 0115-3
Carrying case for secure transport of the Lightweight deflectometer

TECHNICAL SPECIFICATIONS:

Loading mechanism

Total weight	15 kg
Drop weight	10 kg
Maximum impact force	7.07 kN
Duration of impact	17 ms
Material	zinc coated/hard-chrome plated steel

Load plate

Total weight	300 x 20 mm
Diameter	15 kg
Material	zinc coated steel

Electronic settlement measuring instrument

Interfaces	USB, Thermal-Printer, GPS, PC software included
Power supply	4 x R6 batteries
Dimensions	210 x 100 x 45 mm
Settlement measuring range	0.1 to 2.0 mm ± 0.02 mm
Measuring range	Evd<225 MN/m2
Temperature range	0 to 40°C
Storage capacity of measured data	500 series

Testing Sieves

EN 933-2; ISO 3310-1; ISO 3310-2; ISO 565

DESCRIPTION:

All test sieves are manufactured to National and International Specifications and are supplied with a "Certificate of Compliance".

Each sieve is individually serial numbered, ensuring full traceability. Particle Size Analysis is probably performed in all laboratories engaged in testing materials for civil engineering applications.

The range of sieves offered includes ISO, EN, BS and ASTM sieves. Woven wire test sieves are manufactured from stainless steel mesh while the Perforated plate test sieves are manufactured from tinned steel plate.

All test sieves unless otherwise indicated are supplied with full-depth frames. ASTM E11 sieves are similar in construction to those used in the British Stan dard range.

ORDERING:
as per the table below

ACCESSORIES:

SL 0147
Sieve Brush, double-ended, brass and nylon bristle

SL 0148
Sieve Brush, nylon, double-ended

TECHNICAL SPECIFICATIONS:

200 mm dia	300 mm dia	8 inch dia	12 inch dia	Woven wire stainless steel mesh
Product code	Product code	Product code	Product code	Mesh Size BS 410/ISO 3310 ASTM E11
SL 0149	SL 0186	SL 0223	SL 0260	Lid
SL 0150	SL 0187	SL 0224	SL 0261	Receiver
SL 0151	SL 0188	SL 0225	SL 0262	20 micron - no. 635
SL 0152	SL 0189	SL 0226	SL 0263	25 micron - no. 500
SL 0153	SL 0190	SL 0227	SL 0264	32 micron - no. 450
SL 0154	SL 0191	SL 0228	SL 0265	36 micron
SL 0155	SL 0192	SL 0229	SL 0266	38 micron - no. 400
SL 0156	SL 0193	SL 0230	SL 0267	40 micron
SL 0157	SL 0194	SL 0231	SL 0268	45 micron - no. 325
SL 0158	SL 0195	SL 0232	SL 0269	50 micron
SL 0159	SL 0196	SL 0233	SL 0270	53 micron - no. 270
SL 0160	SL 0197	SL 0234	SL 0271	56 micron
SL 0161	SL 0198	SL 0235	SL 0272	63 micron - no. 230
SL 0162	SL 0199	SL 0236	SL 0273	71 micron
SL 0163	SL 0200	SL 0237	SL 0274	75 micron - no. 200
SL 0164	SL 0201	SL 0238	SL 0275	80 micron
SL 0165	SL 0202	SL 0239	SL 0276	90 micron - no. 170
SL 0166	SL 0203	SL 0240	SL 0277	100 micron
SL 0167	SL 0204	SL 0241	SL 0278	106 micron- no. 140
SL 0168	SL 0205	SL 0242	SL 0279	112 micron
SL 0169	SL 0206	SL 0243	SL 0280	125 micron - no. 120
SL 0170	SL 0207	SL 0244	SL 0281	140 micron
SL 0171	SL 0208	SL 0245	SL 0282	150 micron - no. 100
SL 0172	SL 0209	SL 0246	SL 0283	160 micron
SL 0173	SL 0210	SL 0247	SL 0284	180 micron - no. 80
SL 0174	SL 0211	SL 0248	SL 0285	200 micron
SL 0175	SL 0212	SL 0249	SL 0286	212 micron - no. 70
SL 0176	SL 0213	SL 0250	SL 0287	224 micron
SL 0177	SL 0214	SL 0251	SL 0288	250 micron - no. 60
SL 0178	SL 0215	SL 0252	SL 0289	280 micron
SL 0179	SL 0216	SL 0253	SL 0290	300 micron - no. 50
SL 0180	SL 0217	SL 0254	SL 0291	315 micron
SL 0181	SL 0218	SL 0255	SL 0292	355 micron - no. 45
SL 0182	SL 0219	SL 0256	SL 0293	400 micron
SL 0183	SL 0220	SL 0257	SL 0294	425 micron - no. 40
SL 0184	SL 0221	SL 0258	SL 0295	450 micron
SL 0185	SL 0222	SL 0259	SL 0296	500 micron - no. 35

200 mm dia	300 mm dia	8 inch dia	12 inch dia	Woven wire stainless steel mesh
Product code	Product code	Product code	Product code	Mesh size BS 410/ISO 3310 ASTM E11
SL 0297	SL 0362	SL 0427	SL 0492	560 micron
SL 0298	SL 0363	SL 0428	SL 0493	560 micron
SL 0299	SL 0364	SL 0429	SL 0494	600 micron - no. 30
SL 0300	SL 0365	SL 0430	SL 0495	630 micron
SL 0301	SL 0366	SL 0431	SL 0496	710 micron - no. 25
SL 0302	SL 0367	SL 0432	SL 0497	800 micron
SL 0303	SL 0368	SL 0433	SL 0498	850 micron - no. 20
SL 0304	SL 0369	SL 0434	SL 0499	900 micron
SL 0305	SL 0370	SL 0435	SL 0500	1.00mm - no. 18
SL 0306	SL 0371	SL 0436	SL 0501	1.12 mm
SL 0307	SL 0372	SL 0437	SL 0502	1.18mm - no. 16
SL 0308	SL 0373	SL 0438	SL 0503	1.25 mm
SL 0309	SL 0374	SL 0439	SL 0504	1.40mm - no. 14
SL 0310	SL 0375	SL 0440	SL 0505	1.60 mm
SL 0311	SL 0376	SL 0441	SL 0506	1.70mm - no. 12
SL 0312	SL 0377	SL 0442	SL 0507	1.80 mm
SL 0313	SL 0378	SL 0443	SL 0508	2.00mm - no. 10
SL 0314	SL 0379	SL 0444	SL 0509	2.24 mm
SL 0315	SL 0380	SL 0445	SL 0510	2.36mm - no. 8
SL 0316	SL 0381	SL 0446	SL 0511	2.50 mm
SL 0317	SL 0382	SL 0447	SL 0512	2.80mm - no. 7
SL 0318	SL 0383	SL 0448	SL 0513	3.15 mm
SL 0319	SL 0384	SL 0449	SL 0514	3.35mm - no. 6
SL 0320	SL 0385	SL 0450	SL 0515	3.55 mm
SL 0321	SL 0386	SL 0451	SL 0516	4.00mm - no. 5
SL 0322	SL 0387	SL 0452	SL 0517	4.50 mm
SL 0323	SL 0388	SL 0453	SL 0518	4.75mm - no. 4
SL 0324	SL 0389	SL 0454	SL 0519	5.00 mm
SL 0325	SL 0390	SL 0455	SL 0520	5.60mm - 3 ½
SL 0326	SL 0391	SL 0456	SL 0521	6.30mm - 1/4 inch
SL 0327	SL 0392	SL 0457	SL 0522	6.70mm - 0.265 inch
SL 0328	SL 0393	SL 0458	SL 0523	7.10 mm
SL 0329	SL 0394	SL 0459	SL 0524	8.00mm - 5/16 inch
SL 0330	SL 0395	SL 0460	SL 0525	9.00 mm
SL 0331	SL 0396	SL 0461	SL 0526	9.50mm - 3/8 inch
SL 0332	SL 0397	SL 0462	SL 0527	10.00 mm
SL 0333	SL 0398	SL 0463	SL 0528	11.2mm - 7/16 inch
SL 0334	SL 0399	SL 0464	SL 0429	12.5mm - 1/2 inch
SL 0335	SL 0400	SL 0465	SL 0530	13.2mm 0.530 inch
SL 0336	SL 0401	SL 0466	SL 0531	14.00 mm
SL 0337	SL 0402	SL 0467	SL 0532	16.0mm - 5/8 inch
SL 0338	SL 0403	SL 0468	SL 0533	18.00 mm
SL 0339	SL 0404	SL 0469	SL 0534	19.0mm - 3/4 inch
SL 0340	SL 0405	SL 0470	SL 0535	20.00 mm
SL 0341	SL 0406	SL 0471	SL 0536	22.4mm - 7/8 inch
SL 0342	SL 0407	SL 0472	SL 0537	25.0mm - 1 inch
SL 0343	SL 0408	SL 0473	SL 0538	26.5mm - 1.06 inch
SL 0344	SL 0409	SL 0474	SL 0539	28.00 mm
SL 0345	SL 0410	SL 0475	SL 0540	31.5mm - 1 1/4 inch
SL 0346	SL 0411	SL 0476	SL 0541	35.5 mm
SL 0347	SL 0412	SL 0477	SL 0542	37.5mm - 1 1/2 inch
SL 0348	SL 0413	SL 0478	SL 0543	40.00 mm
SL 0349	SL 0414	SL 0479	SL 0544	45.0mm 1 3/4 inch
SL 0350	SL 0415	SL 0480	SL 0545	50.0mm - 2 inch
SL 0351	SL 0416	SL 0481	SL 0546	53.0mm - 2.12 inch
SL 0352	SL 0417	SL 0482	SL 0547	56.00 mm
SL 0353	SL 0418	SL 0483	SL 0548	63.0mm - 2.5 inch
SL 0354	SL 0419	SL 0484	SL 0549	71.00 mm
SL 0355	SL 0420	SL 0485	SL 0550	75.0mm - 3 inch
SL 0356	SL 0421	SL 0486	SL 0551	80.00 mm
SL 0357	SL 0422	SL 0487	SL 0552	90.0mm - 3 1/2 inch
SL 0358	SL 0423	SL 0488	SL 0553	100mm - 4 inch
SL 0359	SL 0424	SL 0489	SL 0554	106mm - 4.24 inch
SL 0360	SL 0425	SL 0490	SL 0555	112.00 mm
SL 0361	SL 0426	SL 0491	SL 0556	125mm - 5 inch

Testing Sieves

EN 933-2; ISO 3310-1; ISO 3310-2; ISO 565

200 mm dia	300 mm dia	8 inch dia	12 inch dia	Woven wire stainless steel mesh
Product code	Product code	Product code	Product code	Mesh Size and description, BS 410/ISO 3310 ASTM E11
SL 0557	SL 0597	SL 0637	SL 0677	4.00 mm
SL 0558	SL 0598	SL 0638	SL 0678	4.50 mm
SL 0559	SL 0599	SL 0639	SL 0679	4.75 mm
SL 0560	SL 0600	SL 0640	SL 0680	5.00 mm
SL 0561	SL 0601	SL 0641	SL 0681	5.60 mm
SL 0562	SL 0602	SL 0642	SL 0682	6.30 mm
SL 0563	SL 0603	SL 0643	SL 0683	6.70 mm
SL 0564	SL 0604	SL 0644	SL 0684	7.10 mm
SL 0565	SL 0605	SL 0645	SL 0685	8.00 mm
SL 0566	SL 0606	SL 0646	SL 0686	9.00 mm
SL 0567	SL 0607	SL 0647	SL 0687	9.50 mm
SL 0568	SL 0608	SL 0648	SL 0688	10.00 mm
SL 0569	SL 0609	SL 0649	SL 0689	11.2 mm
SL 0570	SL 0610	SL 0650	SL 0690	12.5 mm
SL 0571	SL 0611	SL 0651	SL 0691	13.20 mm
SL 0572	SL 0612	SL 0652	SL 0692	14.00 mm
SL 0573	SL 0613	SL 0653	SL 0693	16.00 mm
SL 0574	SL 0614	SL 0654	SL 0694	18.00 mm
SL 0575	SL 0615	SL 0655	SL 0695	19.00 mm
SL 0576	SL 0616	SL 0656	SL 0696	20.00 mm
SL 0577	SL 0617	SL 0657	SL 0697	22.4 mm
SL 0578	SL 0618	SL 0658	SL 0698	25.00 mm
SL 0579	SL 0619	SL 0659	SL 0699	26.50 mm
SL 0580	SL 0620	SL 0660	SL 0700	28.00 mm
SL 0581	SL 0621	SL 0661	SL 0701	31.5 mm
SL 0582	SL 0622	SL 0662	SL 0702	35.50 mm
SL 0583	SL 0623	SL 0663	SL 0703	37.50 mm
SL 0584	SL 0624	SL 0664	SL 0704	40.00 mm
SL 0585	SL 0625	SL 0665	SL 0705	45.00 mm
SL 0586	SL 0626	SL 0666	SL 0706	50.00 mm
SL 0587	SL 0627	SL 0667	SL 0707	53.00 mm
SL 0588	SL 0628	SL 0668	SL 0708	56.00 mm
SL 0589	SL 0629	SL 0669	SL 0709	71.00 mm
SL 0590	SL 0630	SL 0670	SL 0710	75.00 mm
SL 0591	SL 0631	SL 0671	SL 0711	80.00 mm
SL 0592	SL 0632	SL 0672	SL 0712	90.00 mm
SL 0593	SL 0633	SL 0673	SL 0713	100.00 mm
SL 0594	SL 0634	SL 0674	SL 0714	106 mm
SL 0595	SL 0635	SL 0675	SL 0715	112 mm
SL 0596	SL 0636	SL 0676	SL 0716	125 mm

Ultrasonic Cleaning Bath

ASTM E11

DESCRIPTION:

The Ultrasonic cleaning baths use cavitation to remove dirt from objects that are immersed in the cleaning liquid.

Cavitation is the sequential formation and collapse of vapor bubbles and voids in a liquid subjected to acoustic energy at high frequency and intensity.

Cavitation occurs wherever the liquid penetrates, ensuring that the smaller and larger aperture sieves are cleaned equally well.

Ultrasonic baths are also useful for cleaning fragile items such as glassware and sieves.

The 25 liter cleaning bath has an internal diameter of 410mm and a height of 200mm. Accommodating sieves of up to 400mm diameter.

Cleaning baths are manufactured from stainless steel, supplied complete with a timer, lid and incorporate an ultrasonic generator which is suitable for continuous operation..

ORDERING:

SL 0717
Ultrasonic Cleaning Baths
25 lt capacity

ACCESSORIES:

SL 0718
Cleaning Liquid, 5 lt

TECHNICAL SPECIFICATIONS:

Diameter	410 mm
Height	200 mm
Sieves diameter up to	400 mm

Speedy Moisture Meter

BS 812; ASTM D4944; AASHTO T217; EN 413-2; 459-2; 1015-4; DIN 4211

DESCRIPTION:

The Speedy Moisture Tester is a portable system comprising a vessel with an integral pressure gauge a weighing scale and carry case.

A small sample of the material is prepared weighed and placed into the vessel. The reagent is then added and the vessel.

The reagent is then added and the vessel is sealed and shaken to mix the reagent with the sample.

Free moisture within the sample reacts with the reagent to produce a gas and pressure rise within the vessel that is proportional to the amount of moisture.

The moisture content value is then read directly from the calibrated pressure gauge.

Speedy vessel manufactured from cast aluminum and fitted with a calibrated pressure gauge with a moisture measurement range of 0 -20%. With 0.2% Gauge divisions.

ORDERING:

SL 0719
Small speedy, 6gr sample

SL 0720
Large Speedy, 20gr sample

ACCESSORIES:

SL 0721
Calcium Carbide

TECHNICAL SPECIFICATIONS:

Dimensions	510x380x200 mm (case)
Weight (approx.)	9 kg

Universal Carbide Meter

BS 812, ASTM D4944, AASHTO T217

DESCRIPTION:

The moisture content can be determined using the Moisture tester based on the calcium carbide method.

The soil sample is introduced in the bottle with the reagent. The waterreacts with calcium carbide and develops a gas pressure, which is indicated on the manometer and easily converted in percentage of moisture.

It is possible to vary the sample weight from 3 to 100 g for the complete reaction between sample and carbide with accurate moisture measurements from 0 to over the 20%.

The glass ampoule containing the calcium carbide is broken when the bottle is closed and shaken, granting better accuracy to the test.

The instrument comprises the testing bottle with manometer, small balance, 20 ampoules of reagent, accessories, case.

ORDERING:

SL 0722
Small Carbide Meter, 10 gr sample

SL 0723
Medium Carbide Meter, 20 gr sample

SL 0724
Large Carbide Meter, 50 gr sample

ACCESSORIES:

SL 0725
Calcium Carbide reagent ampoules pack of 100 pieces

TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
520x340x140 mm.	6 kg

Liquid Limit Devices Casagrande Method

BS 1377, 1997-2, ASTM D4318, AASHTO T89

DESCRIPTION:

Liquid limit device casagrande method is used to determine the moisture content at which clay soil pass from a plas tic to a liquid state.

It helps in the classification of soil when comparing the potential properties of soil material against empirical data.

Consists of a removable brass cup, adjustable crank, mechanical blow counter, base and grooving tools.

MAIN FEATURES:

- Adjustable crank
- Different models with the same shape

ORDERING:

SL 0726
Manual liquid complete with counter, metal grooving tool and test gauge, BS standards

SL 0727
Motorized liquid complete with counter, metal grooving tool and test gauge, BS standards

SL 028
Manual liquid complete with counter, less ASTM standard

SL 0729
Manual liquid complete with counter, less ASTM standard

TECHNICAL SPECIFICATIONS:

	Manual	Motorized
Dimensions	240x230x150 mm	200x290x170 mm
Weight (approx.)	2 kg	4.2 kg

SL 0730
BS Metal Grooving Tool

SL 0731
AASHTO casagrande grooving tool

ACCESSORIES:

SL 0732
ASTM Metal Grooving Tool

Cone Penetrometer Test

BS 1377; 1924-2; EN DD ENV 1997-2

DESCRIPTION:

The Cone Penetrometer is used to carry on liquid limit tests on soil samples.

It is a static test depending on the soil shear strength.

The test is based on the relationship between moisture content and the penetration of a cone into the soil sample under pre-set conditions.

MAIN FEATURES:

- Adjustable crank
- Different models with the same shape

ORDERING:

SL 0733
Semi-Automatic Cone Penetrometer Supplied complete

SL 0734
Fully Automatic Cone Penetrometer supplied complete

TECHNICAL SPECIFICATIONS:

BS 1377	Yes
BS 1924-2	Yes
Voltage Supply	220-240 V 50/60 Hz
Weight, kg	8.6
Description	Semi-Automatic Cone Penetrometer
Cone Release	Semi-Automatic
EN 1997-2	Yes

Strenght of Stabilized Soil

EN 13286-53; NF P94-100

DESCRIPTION:

To perform the unconfined compressive strength of hydraulically bound mixtures of fine and medium grained soil specimens, the main Standards require to manufacture the test specimens using a suitable mould set kit. Several versions are available according to the Standard: EN 13286-53 NF P94-100

Each test set conforming to EN 13286-53 includes:
1 mould,
set of 2 end plugs
set of 2 plug displacing collars with 3 different heights (5.00 mm; 8.33 mm and 12.50 mm)
1 demoulding plugger
1 specimen collector

Each test set conforming to NF P94-100 includes:
1 mould
5 stainless steel casing
2 compaction plugs
1 set of plug displacing collars
1 demoulding plunger
1specimen collector

ORDERING:

SL 0735
EN Stabilized soil set for fine and medium grained soils, specimen size Ø 50x50 mm, according to EN 13286-53

SL 0736
EN Stabilized soil set for fine and medium grained soils, specimen size Ø 50x100 mm, according to EN 13286-53

SL 0736-1
EN Stabilized soil set for fine and medium grained soils, specimen size Ø 100x100 mm, according to EN 13286-53

SL 0736-2
EN Stabilized soil set for fine and medium grained soils, specimen size Ø 100x200 mm, according to EN 13286-53

SL 0736-3
NF Stabilized soil set for fine and medium grained soils, specimen size Ø 50x50 mm, according to NF P94-100

Determination of Plastic Limit

ASTM 4318, AASHTO T90, BAS 1377:2

DESCRIPTION:

The Plastic Limit (WP) is defined as the lowest moisture content of a soil that will permit a sample to be rolled into threads of 3mm diameter without the threads breaking.

The Plastic Limit Set comprises of a glass plate, steel rod, mixing dish, spatula and 4 moisture content tins.

TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
340x290x90 mm	1,5 kg

ORDERING:

SL 0737
The Plastic Limit complete set

ACCESSORIES:

SL 0738
Steel rod

SL 0739
4 Moisture content tins

Determination of Shrinkage Limit

ASTM D427; AASHTO T92; UNE 103-108; UNI 10014 BS 1377

DESCRIPTION:

When the water content of a fi negrained soil is reduced below the plastic limit, shrinkage of the soil mass continues until the shrinkage limit is reached.

This method of test covers the determination of the shrinkage limit, shrinkage ratio, volumetric shrinkage and linear shrinkage.

The set comprises prong plate, shrinkage dish, spatula, glass measuring cylinder and two moisture content tins.

TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
340x290x90 mm	1,5 kg

ORDERING:

SL 0740
The Shrinkage Limit Test Set is supplied complete

ACCESSORIES:

SL 0741
Shrinkage Dish

SL 0742
Prong Plate

SL 0743
Moisture Content Tin with Lid, aluminum, Ø:45 mm h:10 mm, 2 pcs.

SL 0744
Moisture Content Tin with Lid, aluminum, Ø:55 mm h:35 mm

SL 0745
Porcelain Dish, 120mm dia.

SL 0746
Spatula, 120 mm

SL 0747
Graduated Glass Cylinder, 25 ml,

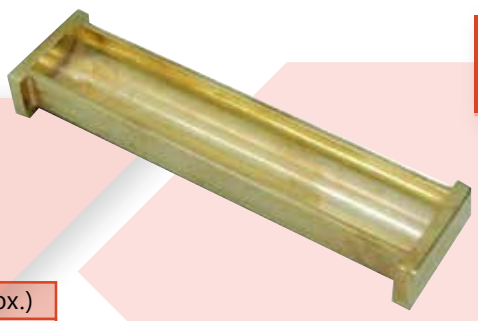
SL 0748
Carrying Case

Linear Shrinkage Mold

BS 1377:2

DESCRIPTION:

The Linear shrinkage test covers the determination of the shrinkage of soils and indicates the plastic properties of soils with low clay content.



TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
140 mm long, 12.5 mm radius.	300 g

MAIN FEATURES:

- Made from brass

ORDERING:

SL 0749
Linear shrinkage Mold

ACCESSORIES:

SL 0750
Vernier Caliper

Voluvessel, 1/20 CU. FT. (1600ML) Capacity

ASTM D2167; AASHTO T205

DESCRIPTION:

The Voluvessel determine the in-place density of compacted or firmly-bonded soils using a rubber balloon apparatus viewed through a graduated, direct-reading clear plastic cylinder protected by metal casing.

The model features a plastic cylinder, which screws into the density plate with the pump assembly mounted to the base.

The Voluvessel comes with a pressure-vacuum pump assembly, pressure gauge, quick coupler valve, double graduated cylinder, 10 balloons and a density plate.

MAIN FEATURES:

- Durable, clear plastic cylinder

ORDERING:

SL 0751
Voluvessel complete test set.

ACCESSORIES:

SL 0752
Spare Balloons, Pack of 10

TECHNICAL SPECIFICATIONS:

Dimensions	Weight
250x250x700 mm	7 kg

Guelph Permeameter Apparatus

ASTM D5126

DESCRIPTION:

The Guelph Permeameter is use for measuring in-situ hydrau lic conductivity.
Accurate evaluation of soil hydraulic conductivity, soil captivity, and matrix flux potential can be made in all types of soils.

The Guelph permeameter is a complete kit consisting of the permeameter, field tripod, well auger, well preparation and cleanup tools, collapsible water container, and vacuum test hand pump, all packaged in a durable carrying case.

ORDERING:

SL 0753
Guelph Permeameter
Complete Set

TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
54X17X7] cm	40 kg

Falling Head Permeability Apparatus

DESCRIPTION:

The Falling Head Permeameter apparatus is used to deter mine the permeability of clay-like or silty soils.

The specimen is confined within the permeameter which is connected to the manometer tube filled with water. The sample must be completely satured with water before the test, and the operator will check the rate of fall of the water in the tube passing through the test specimen.

Falling Head Permeability Set consists of stand with 4 pcs. manometer tubes with connection valves, a Ø100mm permeability cell, soaking reservoir tank and connection hoses. (Water De-Airing equipment should be ordered separately.)

ORDERING:

SL 0754
Falling Head Permeability Apparatus

SL 0755
Water De-Airing equipment

ACCESSORIES:

SL 0754-1
Stand with 4 pcs. manometer tubes with connection valves

SL 0754-2
Ø100mm Permeability Cell

SL 0754-3
Soaking Reservoir Tank

SL 0754-4
Connection Hoses

TECHNICAL SPECIFICATIONS:

	Dimensions	Weight
Falling Head Permeability Cell 100 mm dia.	150x150x260 mm	3 kg
Wooden Stand with 4 Manometer Tubes	230x100x1700 mm	6.6 kg
Soaking Reservoir Tank	320x320x250 mm	3.6 kg

Constant Head Permeameter Apparatus

BS 1377:5; ASTM D2434; AASHTO T215

DESCRIPTION:

The Constant Head Pemeameter apparatus is used for testing the perme ability of granular soils (sand and gravels).
The specimen is formed in a permeability cell and water is passed through it from a constant level tank. Take off point located along the sides of the permeability cell are connected to three manometer tubes mounted on a panel complete with a meter scale.

Water passing through the specimen is collected and measured, either for a specific quality or over a period of time. The reduction of head is noted from the variation of water level in the manometer tubes.

Constant Head Permeability Set, consists of a 80 mm dia. constant head permeability cell, wooden stand with 3 pcs. manometer tubes, constant level tank, and 3m connection hoses. (Water De-Airing equipment and tamping rod should be ordered separately.)

Constant Head Permeability Set, consists of a 120 mm dia. constant head permeability cell, wooden stand with 3 pcs. manometer tubes, constant level tank, and 3m connection hoses. (Water De-Airing equipment and tamping rod should be ordered separately.)

ORDERING:

SL 0755
Constant head permeability for 80mm dia cell

SL 0756
Constant head permeability for 120mm dia cell

SL 0757
Water De-Airing equipment

ACCESSORIES:

SL 0758
Wooden Stand with 3 pcs. Manometer Tubes

SL 0759
Manometer Tubes

SL 0760
Constant Level Tank

SL 0761
Connection Hoses 3m

TECHNICAL SPECIFICATIONS:

	Dimensions	Weight
Wooden Stand with 3 Manometer Tubes	220x70x1700 mm	5.6 kg
Constant Level Water Tank	300x200x250 mm	3 kg
Tamping Rod	Ø 8x300 mm	0.5 kg

End Over End Shaker

BS 1377:2 EN 1997-2

DESCRIPTION:

The Particle density or specific gravity is a measure of the actual particles which make up the soil mass and is defi ned as the ratio of the mass of the particles to the mass of the water they displace.

This method is suitable for soils containing up to 10% of particles retained on a 37.5 mm BS sieve.

TECHNICAL SPECIFICATIONS:

Weight (approx.)
20 kg

ORDERING:

SL 0762
End Over End Shaker 230V 50 Hz, 1 pf

ACCESSORIES:

SL 0763
Gas jar, 1 ltr. Capacity complete with rubber bung.

Sedimentation Hydrometer

EN 933–8; ASTM D2419; AASHTO T176

DESCRIPTION:

The Sedimentation Hydrometer test set is used to determine particle size distribution in soil from the coarse sand size down to the smallest fractions.

In this method the sample is from organic matter after which it is dried and weighed. Next it is suspended in water and sieved.

The solution that passes through the sieve is transferred to a mea suring cylinder with water.

Hydrometer readings are taken after regular intervals. Sedimentation time and hydrometer readings are used to determine the grain sizes according to the stoke's Law.

Sedimentation Hydrometer test set consisting of soil dispersion mixer, hydrometer bath, 1pcs. hydrometer 151H or 152H, sodium hexametaphosphate 1 kg, 6 pcs. 1000 ml sedimentation cylinder, heater, circula tion pump, rubber stopper and 600 ml beaker.

ORDERING:

SL 0764
Sedimentation Hydrometer test set

SL 0765
Constant Temperature Bath

SL 0766
Sodium Hexametaphosphate 500 g

SL 0767
Hydrometer Sedimentation Cylinder 1000 ml

SL 0768
Mechanical Analysis Stirrer

SL 0769
Soil Hydrometer BS/EN, graduated 0.0995 to 1.030 g/ml.

SL 0770
Soil Hydrometer ASTM/AASHTO(152H) graduated –5 to +60 g/litre.

SL 0771
Soil Hydrometer ASTM D422 (151H)graduated 0.0995 to 1.038 g/ml.+60 g/litre.

Mechanical Analysis Stirrer

BS ASTM D422; AASHTO T88

DESCRIPTION:

The compact, bench-top mechanical stirrer is used for dispersing soil samples in water for hydrometer analysis.

The stirrer is supplied complete with Mixing Paddle and Dispersion Cup.

MAIN FEATURES:

- Durable, long-lasting mixing unit
- Baffled Dispersion Cup is included

ORDERING:

SL 0590
Mechanical Analysis Stirrer

TECHNICAL SPECIFICATIONS:

Revolutions per Minute	13,000/18,000rpm speeds
Electrical	115V / 60Hz, 7.5 Amps
Product Dimensions	6.5 x 6.75 x 20.5in (165 x 171 x 521mm)
Estimated Shipping Weight	17.0lbs (7.71kg)

Pyknometer Method

BS 1377, 812-2, EN 1097-7, 1997-2, ASTM D 854, AASHTO T100

DESCRIPTION:

The Pyknometer Method is used to determine the specific gravity of clays, sand and gravel of size smaller than 10mm.

Specific gravity is the ratio of weight to volume of a specific material in air and in water at a constant temperature.

ORDERING:

SL 0772
Density Bottle 25 ml, Supplied complete with capillary vent stopper.

SL 0773
Density Bottle 50 ml, Supplied complete with capillary vent stopper.

SL 0774
Density Bottle 100 ml, Supplied complete with capillary vent stopper.

SL 0775
Pyknometer 1000 ml, Glass jar complete with non-corrodible cone and rubber seal.

SL 0776
Spare Rubber seal

Sand Equivalent Test

EN 933–8, AASHTO T 176; AASHTO T 210; ASTM D2419

DESCRIPTION:

The Sand Equivalent Test indicates the relative portion of undesirable clay-like or plastic fines and dusts that occur in granular soils and fine aggregates passing the No. 4 sieve.
The sample to be tested is placed in a special solution of calcium chloride, formaldehyde and glycerine. After shaking the cylinder, it is allowed to stand for a 20-minute sedimentation period. Readings are then taken on the cylinder scale for the level of the top of the clay suspension and for the sand level.
The "Sand Equivalent" is the sand reading divided by the clay reading x 100. When the water content of a fine-grained soil is reduced below the plastic limit, shrinkage of the soil mass continues until the shrinkage limit is reached.

Sand Equivalent Test Set ASTM EN, supplied with 4 pcs. transparent two graduated acrylic plastic measuring cylinders, 2 pcs. solid rubber stopper, syphon assembly (irrigator tube with valve, syphon tube and hose, blow tube and hose, 5 L plastic can with two-hole stopper), plunger assembly, measuring can, wide-mouth funnel, ruler with special set bag. Washing and Flocculating (Stock Solution) should be ordered separately.

MAIN FEATURES:

- Durable Design

ORDERING:

SL 0777
Sand Equivalent Test Set

TECHNICAL SPECIFICATIONS:

Dimensions	Case: 660 x 203 x 406 mm
Estimated Shipping Weight	6.80 kg / 4.08 kg

Sand Equivalent Shaker

AASHTO T 176; AASHTO T 210; 217; 229; ASTM D3744; ASTM D2419

DESCRIPTION:

The Sand Equivalent Shaker is recommended for laboratories performing sand equivalent tests on a regular basis.

The shaker is used for uniform shaking of Sand Equivalent Measuring Cylinders. Provides shaking action at the specified rate and stroke. Clear Plastic Graduated Test cylinder is held securely by base pin and spring-loaded holder on stoppered end.

MAIN FEATURES:

- Improves repeat ability and consistency
- Supplied with a timer

ORDERING:

SL 0778
Sand Equivalent Shaker

TECHNICAL SPECIFICATIONS:

Dimensions	31x61x61 cm
Weight	36.3 kg

Sand Cone Density

AASHTO T 191; ASTM D1556

DESCRIPTION:

The Sand Cone Density is used for on site determination of the degree of compaction of sand.

Two sizes are available:

Sand Cone Set 6.5", complete with valved double cone, 5 lt plastic jar, base plate with flanged hole.

Sand Cone Set 12", complete with valved double cone, 5 lt plastic jar, base plate with flanged hole.

MAIN FEATURES:

- Detachable cone fitting
- Comes with Valve Stopper

ORDERING:

SL 0779
Sand Cone Set 6.5",

SL 0780
Sand Cone Set 12"

TECHNICAL SPECIFICATIONS:

	Dimensions	Weight
Sand Cone Set 6.5"	300x300x550 mm	4 kg
Sand Cone Set 12"	600x600x650 mm	15 kg

Sand Replacement

BS 1377:9; 1924:2

DESCRIPTION:

The Sand Replacement is used to determine the dry density of in-situ compact, fine, medium grained soils and for layers not exceeding 50 cm thickness.
A circular hole is dug in the ground, all the soil from within it is collected, weighed and dried.

The hole is then back-filled with standard uniform sand or fine gravel, poured from a calibrated container for calculating the volume of hole.

Complete set consists of pouring cylinder, calibration container and a tray. The sand pouring cylinder is made of cast aluminum and precisely machined. The calibration container and tray are made of plated sheet steel.

MAIN FEATURES:

- Heavy duty precisely machined

ORDERING:

SL 0781
Sand replacement Set 100 mm

SL 0782
Sand replacement Set 150 mm

SL 0783
Sand replacement Set 200 mm

TECHNICAL SPECIFICATIONS:

	Dimensions	Weight
Sand Replacement Test Set 100 mm	300x300x440 mm	8 kg
Sand Replacement Test Set 150 mm	300x300x500 mm	14 kg
Sand Replacement Test Set 200 mm	500x500x660 mm	27 kg

Riffle Box

BS 1377, 1924, 812; EN 932-1, 933-3; ASTM C72

DESCRIPTION:

Riffle Boxes are used for dividing soil aggregates into representative sample increment for testing.

Heavy Duty Electrostatic painted and manufactured from heavy gauge sheet metal the slot widths and number of slots as required in the standards.

Riffle boxes are supplied complete with 3 containers easy to handle.

ORDERING:

SL 0784	7 mm	2,2 kg
SL 0785	13 mm	6,2 kg
SL 0786	15 mm	8 kg
SL 0787	19 mm	9,5 kg
SL 0788	25 mm	12,5 kg
SL 0789	30 mm	19,9 kg
SL 0790	38 mm	21 kg
SL 0791	45 mm	24,7 kg
SL 0792	50 mm	26,8 kg
SL 0793	64 mm	32,1 kg
SL 0794	75 mm	35,3 kg

Universal Sample Splitter

AASHTO T248; AASHTO T27,T92; ASTM C 136; ASTM C 702; ASTM C 778 ;ASTM D 75; BS 1377; ASTM D427

DESCRIPTION:

The Universal Sample Splitter is a rugged, sample divider samples of aggregate, ore and other granular materials.

This original model of the Universal design is suitable for laboratory or field use with materials with particle sizes from 4in (102mm) down to fine sand.

The lever-release allows controlled, accurate splits from the 1ft3 (28.3L) hopper. Made from heavy-gauge painted steel and anodized aluminum.

Adjustable chute design features easy to adjust chutes and spring loaded lever-release hoppers to assure top accuracy when reducing bulk materials.

Particle sizes from 60 microns to 6 inch, Includes 2 pans.

ORDERING:

SL 0795
Universal Sample Splitter

TECHNICAL SPECIFICATIONS:

Dimensions	737x483x990 mm
Hopper/Pans Capacity	28.3 L
Chute Bar Width	102mm
Chute Bars	48
Chute Slope	45°

Plate bearing test equipment

ASTM D1194, ASTM D1195, ASTM D1196; BS 1377:9

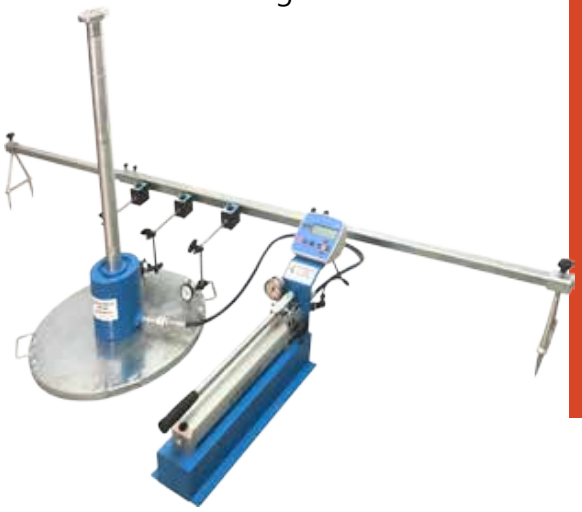
DESCRIPTION:

The Plate Bearing Test is used to determine the bearing capacity of a soil under field loading conditions for a specific loading plate and depth of embedment.

It is also used for load tests of soil and flexible pavement components.

Plate Loading Test Set with Digital Dial Gauges and LPI Digital Readout Unit, 200 kN. Supplied complete with Hydraulic hand pump, 1,5 m flexible hose with quick release coupling, Pressure transducer, LPI battery operated digital readout unit, 200kN capacity piston assembly, 300 mm and 450 mm dia. loading plates, 2.4 m long datum bar, 3 pcs. 25 mm travel x 0.01 mm digi tal dial gauges with dial supports.

Plate Loading Test Set with Digital Dial Gauges and LPI Digital Readout Unit, 500 kN. Supplied complete with Hydraulic hand pump, 1,5 m flexible hose with quick release coupling, Pressure transducer, LPI battery operated digital readout unit, 500kN capacity piston assembly, 600 mm and 760 mm dia. loading plates, 2.4 m long datum bar, 3 pcs. 25 mm travel x 0.01 mm digital dial gauges with dial supports.



ORDERING:

SL 0796
Plate Bearing test equipment set 200kN

SL 0797
Plate Bearing test equipment set 500kN

ACCESSORIES:

SL 0798
Digital Dial Gauge

SL 0799
300mm dia loading plate

SL 0800
450mm dia loading plate

SL 0801
600 mm dia loading plate

SL 0802
760 mm dia loading plate

Electrical Density Gauge

ASTM standard D7113 and AASHTO T 343-12

DESCRIPTION:

The Electrical Density Gauge measures pavement density indirectly by measuring its dielectric constant. It passes a small current through the pavement, which creates an electrical sensing field.

Density is measured by the response of this electrical sensing field to changes in the pavement's complex impedance (consisting of the pavement's composite resistivity and dielectric constant).

The advantage of using the electrical density gauge is that the readings can be obtained in seconds.
It contains no radioactive source and therefore not subject to radiological controls. More effective cost control, no licensing or special training needed, easier to use, light in weight.

MAIN FEATURES:

- Full Color VGA display
- Customizable Project Entries
- Customizable Material Entries
- Diagnostics reading mode

ORDERING:

SL 0803
Electrical Density Gauge for soil

SL 0804
Electrical Density Gauge for asphalt

Nuclear density gauge

ASTM D6938, D2950, C1040 and AASHTO T310

DESCRIPTION:

The Nuclear Density Gauge that is better in performance than any other gauge on the market today with the lowest maintenance and operating costs.

Operation is straightforward and uncomplicated. Menu options are easy to read and navigate. A backlit LCD screen and special scroll functions allows operators to easily read.

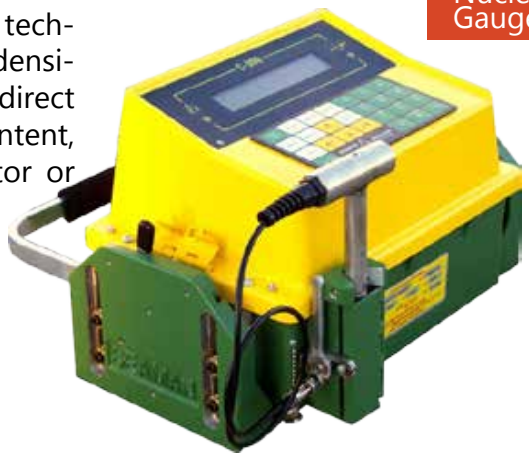
The gauge uses an advanced micro-processor-based technology to provide highly-accurate measurements of density and moisture that are automatically computed for direct readouts of wet density, dry density, moisture content, percent of moisture, percent of compaction (Proctor or Marshall), void ratio and air voids.

MAIN FEATURES:

- Simple to Operate
- Lightweight
- Prompts user

ORDERING:

SL 0805
Nuclear Density Gauge



Consolidation aparatus

BS 1377:5 / ASTM D2435, D3877, D4546, AASHTO T216

DESCRIPTION:

The One-dimensional Consolidation test is used to determine the consolidation characteristics of soils of low permeability.

Tests are carried out on specimens prepared from undisturbed samples. Data obtained from these tests together with classification data and a knowledge of the soils loading history, enables estimates to be made of the behavior of foundations under load.

The consolidation apparatus is rigidly constructed to ensure minimum frame distortion. The frame is designed to load the specimen through a lever arm assembly and one of three alternative beam ratios as 9:1, 10:1 and 11:1.

The beam is fitted with a counter balance weight and beam support jack. The cell platform will accept the complete range of consolidation cells and is fitted with a central spigot to ensure accurate cen tering of the cell under the loading.

The fixed ring consolidation cells are manufactured from corrosion-resistant materials and conform to the requirements of the relevant standards. An integral water reservoir is incorporated in the cell which allows the specimen to be inundated when required. All cells are supplied complete with upper and lower porous disc, pressure pad and cutting (specimen) ring.

Consolidation aparatus

BS 1377:5; ASTM D2435; D3877; D4546; AASHTO T216

The Front Loading Oedometer (consolidation) set comes complete with, cast aluminum frame, the lever arm incorporates 9:1, 10:1 and 11:1 beam ratios. Consolidation cell, dial gauge or displacement transducer and data logger, bench, weights, apparatuses for pre pare consolidation samples and calibration disc.

TECHNICAL SPECIFICATIONS:

Dimensions	750x850x1400 mm
Weight (approx.)	180 kg

ORDERING:

SL 0806
Front Loading Oedometer (consolidation), cast aluminum frame, the lever arm incorporates 9:1, 10:1 and 11:1 beam ratios.

SL 0807
Consolidation cell for high pressure, 50 mm specimen dia., complete with upper and lower porous disc, cutter ring and cylinder wall.

SL 0808
Consolidation cell for high pressure BS/EN, 75 mm specimen dia., complete with upper and lower porous disc, cutter ring and cylinder wall.

SL 0809
Consolidation cell for high pressure ASTM, 63.50 mm (2.5") specimen dia., complete with upper and lower porous disc, cutter ring and cylinder wall.

SL 0810
Bench for consolidation with 3 oedometer capacity

SL 0811
Calibration disc for 50 mm dia. consolidation cell, stainless steel

SL 0812
Calibration disc for 63.5 mm dia. consolidation cell, stainless steel

SL 0813
Calibration disc for 75 mm dia. consolidation cell, stainless steel

SL 0814
Set of Weights for consolidation, 16 kg

SL 0815
Set of Weights for consolidation, 32 kg

ACCESSORIES:

SL 0816
Set of Weights for consolidation, 50 kg

SL 0817
Set of Weights for consolidation, 64 kg

SL 0818
Set of Weights for consolidation, 80 kg

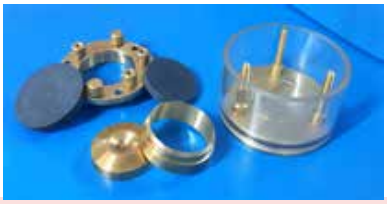
SL 0819
Dial gauge

SL 0820
Digital Dial gauge

SL 0821
Displacement transducer

SL 0822
Data logger 4 Channel type.

SL 0823
Data logger 8 Channel type.



Direct Residual Shear Apparatus

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

DESCRIPTION:

The Digital Residual Direct Shear Apparatus is used for determination of the direct shear strength of soils specimen. The process is known as shear failure and occurs when shear stresses set up in the soil mass exceed the maximum shear resistance which the soil can offer, i.e. its shear strength.

The Automatic Direct Residual Shear Testing Machine comes complete with, Digital control of speed and data acquisition unit, infinitely variable speed drive from 0.00001 - 9.000000 mm/min via servo motor, wide-screen TFT control unit, 1/9, 1/10, 1/11 loading ratios, complete with a 5 kN load cell, a 25 x 0.001 mm linear potentiometric displacement transducer (for horizontal displacement), a 10 x 0.001 mm linear potantiometric displacement transducer (for vertical displacement). Supplied complete with Geotechnical software. Shear box assembly, slotted weight set, speci men cutter and extrusion dolly.

TECHNICAL SPECIFICATIONS:

Maximum shear force	5 kN
Maximum vertical force	5 kN or 50 kN using 10:1 cantilever
Maximum horizontal travel	150 mm
Test speed	from 0.00001 to 9.99999 mm/min
Sample type and size	up to 100 mm square or round
Overall dimensions	1040 x 350 x 1200 mm (l x d x h)
Multivoltage	230 V, 50 Hz, 60Hz or 110 V, 60 Hz

MAIN FEATURES:

- Display of both speed and displacement with high resolution.
- Box group mounted on ball track with high quality antifriction system.
- Read value results are immediate and of extreme accuracy
- Extremely easy and practical use .

ORDERING:

SL 0824
Digital Residual Direct Shear Apparatus

ACCESSORIES:

SL 0825
Square Shear Box Assembly, 60x60 mm

SL 0826
Square Shear Box Assembly, 100x100 mm

SL 0827
Square Shear Box Assembly, Ø 2.5 inch

SL 0828
Circular Shear Box Assembly, 60x60 mm dia.

SL 0829
Circular Shear Box Assembly, 100x100 mm dia.

SL 0830
Circular Shear Box Assembly, Ø 2.5 inch dia.

SL 0831
Set of Weights for consolidation, 16 kg

SL 0832
Set of Weights for consolidation, 32 kg

SL 0833
Set of Weights for consolidation, 50 kg

SL 0834
Set of Weights for consolidation, 64 kg

SL 0835
Set of Weights for consolidation, 80 kg

Automatic Soil Compactor

ASTM D558, D559, D560, D698, D1557, D1883; EN 13286 2, 13286-47; BS 1377:4 AASHTO T99, T134, T135, T136, T180, T193; NLT 107/98, 108/91, 111/87

DESCRIPTION:

Automatic Soil Compactor is designed to compact specimens automatically and uniformly, assuring conformity with the above listed international standards.

The principle of the design is to allow the hammer to drop the required height into the soil in the mold which rotates circularly to distribute the blows uniformly over the surface of the specimen in the mold.

The Compactor is equipped with programmable digital counter which allows machine to stop at the preset numbers of blows. The height and weight of the rammer is adjustable to suit test requirements. The drop weight is adjustable to 300 mm drop height and is also adjustable to 450 mm drop height.
The rammer is circular faced with a 50 mm diameter and is adjustable to 2.5 kg. or 4.5 kg.
An automatic blow pattern ensures effective compaction for each layer of soil and the rammer travels across the mould.
The table rotates the mould in equal steps and the number of blows per layer can be set at the beginning of the test by the digital counter.

The Automatic Soil Compactor is supplied complete with:
Programmable digital counter, adjustable falling height (300 mm, 305 mm, 450 mm, 457 mm) and adjustable weight (2.5 kg , 4.5 kg). ASTM/AASH TO/EN/BS rammer.

ORDERING:

SL 0836
Automatic Soil Compactor

ACCESSORIES:

SL 0837
Rammer BS/EN, 50 mm dia, adjustable to 2.5 kg or 4.5 kg weight

SL 0838
Rammer ASTM, 2 in dia, adjustable to 5.5 lb (2.5 kg) or 10 lb (4.5 kg)

TECHNICAL SPECIFICATIONS:

Drop Height	300 mm, 305 mm,
Rammer Weight	2.5 kg, 4.5 kg
Dimensions	640 x 340 x 1506 mm (w x l x h)
Power	220 V, 50-60 Hz, 1 ph
Weight (approx.)	135 kg

Dry Density, Moisture Relationship, Standard and Modified Proctor Mold

BS1377-4,1924-2,1997-2; ASTM D558,559,560, 698,1557; AASHTO T99, T134 T135, T136

DESCRIPTION:

Moulds and rammers are used for determining the relationship between the moisture content and density of compacted soil.

Made of plated steel, includes collar, mould body and base plate.

The Rammers are used to compact the soil sample in the Proctor Moulds and made of plated steel. Different models are available conforming to the relevant standards.

TECHNICAL SPECIFICATIONS:

Proctor Mold ASTM/AASHTO

Description	Internal Dia	Body Height	Weight
Standard Proctor Mould	101.6 ± 0.4 mm	116.4 ± 0.5 mm	7 kg
Modified Proctor Mould	152.4 ± 0.7 mm	116.4 ± 0.5 mm	9 kg

Proctor Mold EN

Description	Internal Dia	Body Height	Weight
A Type Proctor Mould EN (Standard)	100 ± 1 mm	120± 1 mm	5 kg
B Type Proctor Mould EN (Modified)	150 ± 1 mm	120± 1 mm	8.9 kg

Proctor Mold BS

Description	Internal Dia	Body Height	Weight
1liter Mould (Standard Proctor) BS,TS-1900-1	105 ± 0.5 mm	115,5 ± 0,5 mm	5 kg
CBR Type Mould BS (Modified Proctor) / Vibrating Hammer Mould BS, EN, TS-1900-1	152 ± 0.5 mm	127 ± 1 mm	7.3 kg

Proctor Rammer ASTM/AASHTO

Description	Rammer Dia.	Free Fall Height	Mass of Rammer	Weight
Standard Proctor Compaction Rammer	50.8	304.8± 1	2495 ± 23 g	4.5
Modified Proctor Compaction Rammer	50.8	457 ± 1.3	4540 ± 10 g	8

Proctor Rammer EN

Description	Rammer Dia.	Free Fall Height	Mass of Rammer	Weight
A Type Rammer EN (Low Energy-Standard)	50 ± 0.5	305 ± 3	2500 ± 20 g	8
B Type Rammer EN (Medium Energy-Modified)	50 ± 0.5	457 ± 3	4500 ± 40 g	4.5

Proctor Rammer BS

Description	Rammer Dia.	Free Fall Height	Mass of Rammer	Weight
2.5 kg Compaction Rammer BS	50 ± 0.5	300 ± 3	2500 ± 25 g	4.5
4.5 kg Compaction Rammer BS	50 ± 0.5	450 ± 4	4500 ± 50 g	8

ORDERING:

SL 0839
Standard Proctor mold, ASTM/AASHTO.

SL 0840
Modified Proctor mold, ASTM/AASHTO.

SL 0841
A Type Proctor Mould EN (Standard)

SL 0842
B Type Proctor Mould EN (Modified)

SL 0843
1liter Mould (Standard Proctor) BS,TS-1900-1

SL 0844
CBR Type Mould BS (Modified Proctor) / Vibrating Hammer Mould BS, EN, TS-1900-1

SL 0845
Standard compaction rammer, ASTM/AASHTO.

SL 0846
Modified compaction rammer, ASTM/AASHTO.

SL 0847
A Type Rammer EN

SL 0848
B Type Rammer EN

SL 0849
2.5 kg Compaction Rammer BS

SL 0850
4.5 kg Compaction Rammer BS

CBR Test Machine with Load Ring

EN 13286-47; BS 1377:4; ASTM D1883; AASHTO T193; NF P94-078; UNI CNR 10009

DESCRIPTION:

The CBR Test Machine with Load Ring is designed for performing laboratory evaluation of the CBR value of highway sub bases and subgrade and for the determination of strength of cohesive materials which have maximum particle sizes less than 19 mm (3/4").

The CBR Test Machine with 50kN load ring and dial gauge is designed to load the penetration piston into the soil sample at a constant rate to measure the applied load and piston penetration at predetermined intervals.

The machine has a load ring and two dial gauges one for reading penetration and one for the load ring.

The machine is designed to be mounted on a suitable bench and comprises of a robust and compact two column frame with adjustable upper cross beam. The frame has 50 kN capacity. Two test speeds are provided 1.0 mm/min for BS, EN and 1.27 mm/min. for ASTM/EN/AASHTO tests.

This main feature allows the user to perform tests complying to BS, EN or ASTM/EN/AASHTO standards with the same machine. Loading and unloading are down from the front panel by UP/DOWN buttons. Unloading speed is adjusted 5 mm/min for easy re-testing.

The CBR Test Machine is supplied complete with; Load Ring, 50 kN with dial gauge. Digital Gauge with Con nection Part, 25x0.01 mm Penetration Piston

ORDERING:

SL 0850
CBR Test Machine with Load Ring complete set. 50 kN capacity.

ACCESSORIES:

SL 0851
Penetration Piston.

SL 0852
Penetration Dial Gauge BS, 25 mm x 0.01 mm divisions.

SL 0853
Load Ring, 50 KN complete.

TECHNICAL SPECIFICATIONS:

Dimensions	480x650x1150 mm
Weight (approx.)	110 kg
Power	370 W

CBR Test Machine with Digital Readout Unit

EN 13286-47; BS 1377:4; ASTM D1883; AASHTO T193; NF P94-078; UNI CNR 10009

DESCRIPTION:

The CBR Test Machine with Digital Readout Unit is designed for performing laboratory evaluation of the CBR value of highway sub bases, subgrade and for the determination of strength of cohesive materials which have maximum particle sizes less than 19 mm.

The CBR Test Machine with Digital Readout is designed to load the penetration piston into the soil sample at a constant rate to measure the applied load and piston penetration at predetermined intervals. The Machine has 2 digital readout units for load and displacement.

The machine is designed to be mounted on a suitable bench and comprises of a robust and compact two column frame with adjustable upper cross beam.

The frame has a capacityof 50 kN. Two test speeds are provided 1.0 mm/min for BS and 1.27 mm/min. for EN AST M/EN/AASHTO tests.

This main feature allows the user to perform tests complying to BS or ASTM/EN/AASHTO standards with the same machine.
Automatic loading and unloading are down from the front panel by UP/DOWN buttons. Unloading speed is adjusted 5 mm/min for easy re-testing.

The CBR Test Machine is supplied complete with:

Load Cell, 50 kN Linear Potentiometric Displacement Transducer with Connection Part, 25x0.001 mm Penetration Piston

ORDERING:

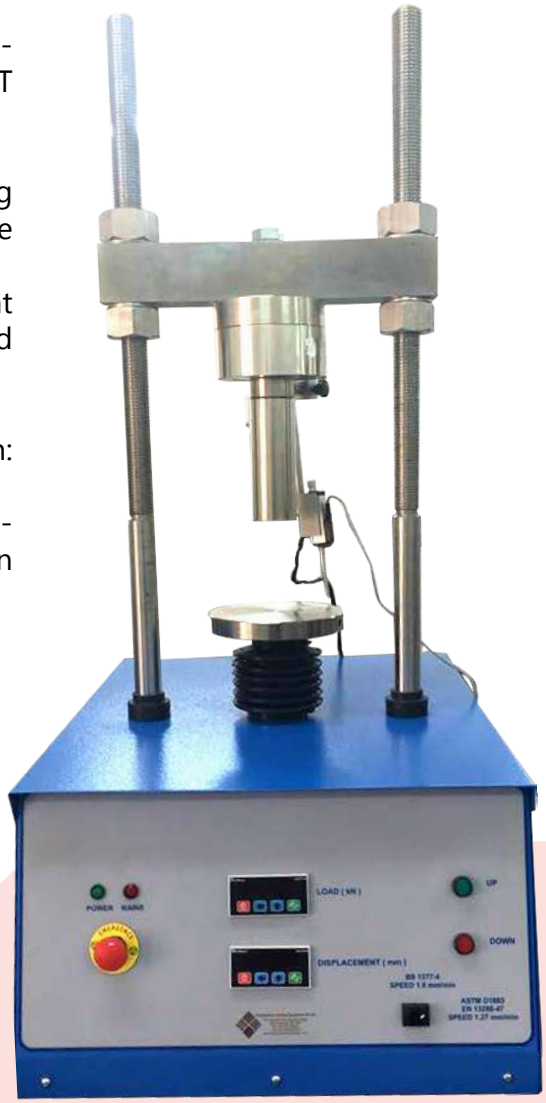
SL 0854
CBR Test machine with digital readout 50 kN.

ACCESSORIES:

SL 0855
Penetration Piston.

SL 0856
Load Cell, 50 kN

SL 0857
Linear Potentiometric Displacement Transducer with Connection Part, 25x0.001 mm



TECHNICAL SPECIFICATIONS:

Dimensions	480x650x1150 mm
Weight (approx.)	110 kg
Power	370 W

Digital Computerized CBR

EN 13286-47; BS 1377:4; ASTM D1883; AASHTO T193; NF P94-078; UNI CNR 10009

DESCRIPTION:

The Digital Computerized CBR Test Machine is designed for performing laboratory evaluation of the CBR value of highway sub-bases and sub-grade, and determination of the strength of cohesive materials which have maximum particle sizes less than 19 mm (3/4").

The machine is designed to load the penetration piston into the soil sample at a constant rate to measure the applied load and piston penetration at predetermined intervals.The machine has a digital read- out unit on its front panel connected to 50 kN load cell, linear potentiometric displacement transducer (25 mm x 0.001 mm), computer software and connection cable.

The Digital Graphic Display Data Acquisition and Control Unit is designed to control the machine and processing of data from load-cells, pressure transducers or displacement transducers which are fitted to the machine.
All the operations are controlled from the front panel touch screen. It displays all menu option listings simultaneously, allowing the operator to access the required option in a seem less manner.

The Digital Graphic display is able to draw real-time "Load vs. Time", "Load vs. Displacement" or "Stress vs. Time" graphics.

The digital computerized CBR Test Machine is supplied with:

Digital Touch Screen
Load Cell, 50 kN
Penetration Piston
Linear Potentiometric Displacement Transducer
Computer Software
Connection Cable

ORDERING:

SL 0859
Digital Computerized CBR Test Machine

ACCESSORIES:

SL 0860
Digital Touch Screen

SL 0861
Load Cell

SL 0862
Penetration Piston

SL 0863
Linear Potentiometric Displacement Transducer

SL 0864
Computer software

SL 0865
Computer Cable

TECHNICAL SPECIFICATIONS:

Dimensions	480x650x1150 mm
Weight (approx.)	110 kg
Power	370 W

In-situ CBR Test Apparatus

BS 1377:9; 1924:2; ASTM D4429; ASTM D1883, AASHTO T193; EN 13286-47

DESCRIPTION:

The in-situ California Bearing Ratio is used for the evaluation of the bearing capacity of soil from a vehicle on site immediately and with less delay.
Rigid and stable frame, made from corrosion-proof steel.

The set consists of:
- 50 kN capacity mechanical jack with ball seating
- 50 kN capacity load ring
- Analog penetration dial gauge (30 mm travel x 0.01 mm)
- Adjustable dial gauge holder
- CBR Penetration piston
- Set of extension rods (2 pcs. 102 mm, 1 pcs. 305 mm and 1 pcs. 610 mm length)
- Datum bar assembly with two stands
- 4.5 kg annular surcharge weight
- 4.5 Kg slotted surcharge weight
- 9 kg slotted surcharge weight
- Vehicle bracket and wooden carrying case

The Conversion Frame is used to convert the In-situ CBR test to a mechanical laboratory CBR test machine.
The system is easily assembled onto the conversion frame with the addition of some of the accessories included.

TECHNICAL SPECIFICATIONS:

Dimensions	Weight (approx.)
240x1630x230 mm (case)	50 kg
380x270x1180 mm	26 kg

ORDERING:

SL 0866
In-situ CBR Test Machine with Load Ring complete set.

ACCESSORIES:

SL 0867
Conversion frame

SL 0868
Mechanical Jack

SL 0869
Load ring

SL 0870
Penetration dial gauge

SL 0871
Dial gauge holder

SL 0872
Penetration piston

SL 0873
Extension rods

SL 0874
Datum bar assembly

SL 0875
Annular surcharge weight

SL 0876
4.5 Kg Slotted surcharge weight

SL 0877
9 kg slotted surcharge weight

SL 0878
Vehicle Bracket

Expansion Swell Test Equipment

BS 1377:2

DESCRIPTION:

The Swell Test Equipment is placed on top of the soil sample to enable monitoring of swelling.

The swell test consists of perforated plate with adjustable stem (swell plate) dial gauge tripod and dial gauge.

ORDERING:

SL 0879
Swell Plate with adjustable stem

SL 0880
Swell Tripod for mounting Swell dial gauge on the CBR mould collar

SL 0881
Dial Gauge 20mm x 0.01 mm

CBR Moulds and Accessories

DESCRIPTION:

The range of moulds and accessories specifically designed to meet the requirements of the relevant standards.

The moulds and accessories are manufactured from high quality, long-lasting material and with proper maintenance will give years of satisfactory performance.

ORDERING:

EN CBR Moulds and Accessories

Product code	Description	Specifications	Weight
SL 0882	Proctor/CBR mould	With collar and solid base plate. Plated steel. 150 mm dia., 120 mm height	8.9 kg
SL 0883	Proctor/CBR mould, split version	With collar and solid base plate. Plated steel. 150 mm dia., 120 mm height	8.9 kg
SL 0884	Perforated base plate	Plated steel	1 kg
SL 0885	Filter screen	Stainless steel woven mesh, No.100 (150 µm), 144 mm dia.	0.05 kg
SL 0886	Compaction rammer	2" (50.8 mm) dia. rammer face, 457.2 mm fall, 4.54 kg weight	5.3 kg
SL 0887	Anular surcharge	Plated steel, 2 kg	2 kg
SL 0888	Split surcharge	Plated steel, 2 kg	2 kg
SL 0889	Straight edge	3x30x300 mm	0.3 kg
SL 0890	Filter paper	No.1x150 mm dia. Pack of 100	0.3 kg
SL 0891	Swell plate	Perforated with adjustable stem	1 kg
SL 0892	Gauge tripod	Non corrodible alloy	0.3 kg
SL 0893	Dial gauge	10 mm travel, 0.01 mm divisions	0.1 kg
SL 0894	Dial gauge	30 mm travel, 0.01 mm divisions	0.1 kg
SL 0895	Soaking tank	Plastic, ID 680x490x540 mm	9.1 kg
SL 0896	Proctor/CBR mould	With collar and solid base plate Plated steel. 250 mm dia.	16 kg
SL 0897	Steel plate (large)	249.5 mm dia.	2 kg
SL 0898	Proctor rammer, high energy	15 kg falling weight	17 kg

ASTM D1883; AASHTO T193; UNE 103-502; UNI 10009
BS 1377:4; BS 1924:2
NF P94-093; NF P94-078; NF P98-231-1
EN 13286-47

ASTM,AASHTO, UNE,UNI CBR Moulds and Accessories

Product code	Description	Specifications	Weight
SL 0899	CBR mould body	With collar and perf. base plate - plated steel. 6" dia. (152.4 mm), 7" (177.8 mm) body height	7.8 kg
SL 0900	Split CBR mould	Split longitudinally on one side	8.5 kg
SL 0901	Filter screen	Stainless steel woven mesh, No.100 (150 µm), 144 mm dia.	0.05 kg
SL 0902	Compaction rammer	2" (50.8 mm) dia. rammer face, 457.2 mm fall, 4.54 kg weight	5.3 kg
SL 0903	Sliding weight rammer	2" (50.8 mm) diameter rammer face, 457.2 mm fall, 4.54 kg weight	8 kg
SL 0904	Spacer disc with "T" handle	515/16" dia. (150.8 mm)x 2.416" (61.4 mm) high. Plated steel	7.5 kg
SL 0905	UNE Spacer disc	150.8 mm dia. x 36 mm high. Plated steel	7.5 kg
SL 0906	Anular surcharge	Plated steel, 2.27 kg	2.27 kg
SL 0907	Slotted surcharge	Plated steel, 2.27 kg	2.27 kg
SL 0908	Cutting edge	Plated steel	0.5 kg
SL 0909	Straight edge	3x30x300 mm	0.3 kg
SL 0910	Solid CBR base	Plated steel	1 kg
SL 0911	Filter paper	No.1x150 mm dia. Pack of 100	0.3 kg
SL 0912	Swell plate	With adjustable stem	1 kg
SL 0913	Gauge tripod	Non corrodible alloy	0.3 kg
SL 0914	82- Dial gauge	10 mm travel, 0.01 mm divisions	0.1 kg
SL 0915	82- Dial gauge	30 mm travel, 0.01 mm divisions	0.1 kg
SL 0916	Universal extruder	For 100 to 152.4 mm dia. samples	25 kg
SL 0917	Soaking tank	Plastic, ID 680x490x540 mm	9.1 kg

BS CBR Moulds and Accessories

Product code	Description	Specifications	Weight
SL 0909	CBR mould body	Plated steel with both ends threaded to fit the base or collar. 152 mm ID.x127 mm high	3 kg
SL 0910	Extension collar	152 mm ID. X 50 mm high	1 kg
SL 0911	Perf. base plate	Plated steel	1.8 kg
SL 0912	Solid base/ top plate	Plated steel	1.8 kg
SL 0913	Cutting collar	Plated steel	1 kg
SL 0914	"C" spanner	To mount and dismount the collar from the mould body. Two required	1 kg
SL 0915	Tool for base plate	To remove or mount the solid or perf. base plate from the mould	1 kg
SL 0916	Compaction plug with handle	150 mm dia. x 50 mm high	7.2 kg
SL 0917	Compaction rammer	50 mm dia rammer face, 450 mm fall, 4.5 kg weight	5.3 kg
SL 0918	Anular weight	Plated steel, 2 kg	2 kg
SL 0919	Split weight	Plated steel, 2 kg	2 kg
SL 0920	Tamping bar	12.7 mm dia. x380 mm long	
SL 0921	Straight edge	3x30x300 mm	0.3 kg
SL 0922	Steel rule	500 mm long	0.1 kg
SL 0923	Filter paper	No.1x150 mm dia. Pack of 100	0.3 kg
SL 0924	Swell plate	With adjustable stem	1 kg
SL 0925	Gauge tripod	Non corrodible alloy	0.3 kg
SL 0926	82- Dial gauge	10 mm travel, 0.01 mm divisions	0.1 kg
SL 0927	82- Dial gauge	30 mm travel, 0.01 mm divisions	0.1 kg
SL 0928	Universal extruder	For 100 to 152.4 mm dia. samples	25 kg
SL 0929	Soaking tank	Plastic, ID 680x490x540 mm	9.1 kg

NF CBR Moulds and Accessories

Product code	Description	Specifications	Weight
SL 0930	NF CBR mould	Complete with collar and Perforated base plate. Plated steel. 152 dia. x 152 mm body height	9 kg
SL 0931	Split NF CBR mould	Split longitudinally on one side	9 kg
SL 0932	Modified compaction hammer	Rammer face 50 mm dia., fall height 457.2 mm, weight 4.54 kg	5.3 kg
SL 0933	Filter paper	No. 1 x 150 mm dia. Pack of 100	0.3 kg
SL 0934	Spacer disc	Plated steel, 25.4 mm high	3.8 kg
SL 0935	Anular surcharge weight	Plated steel, 2.3 kg	2.3 kg
SL 0936	Split surcharge weight	Plated steel, 2.3 kg	2.3 kg
SL 0937	Cutting edge	Plated steel	0.5 kg
SL 0938	Straightedge	3x30x300 mm	0.3 kg
SL 0939	Swell plate	Plastic with 3 mm dia. holes	0.3 kg
SL 0940	Dial gauge	10 mm travel x 0.01 mm	0.1 kg
SL 0941	Dial gauge	30 mm travel x 0.01 mm	0.1 kg
SL 0942	Gauge tripod	Non corrodible alloy	0.3 kg
SL 0943	Soaking tank	Plastic with supporting base, ID 680x490x540 mm	9.1 kg
SL 0944	Universal extruder	For 100 to 152.4 mm dia. specimens	25 kg

Triaxial Testing Apparatus

BS 1377-7,8 1924-2, ASTM D2850 D4767 AASHTO T296 T297

DESCRIPTION:

In a Triaxial shear test, stress is applied to a sample of the material being tested in a way, which results in stresses along one axis being different from the stresses in perpendicular directions.

This is typically achieved by placing the sample between two parallel platens, which apply stress in one (usually vertical) direction, and applying fluid pressure to the specimen to apply stress in the perpen dicular directions.

This is done by our testing apparatus which allows application of different levels of stress in each of three orthogonal directions X, Y, Z Axis are discussed below, under "True Triaxial test".)

The application of different compressive stresses in the test apparatus causes shear stress to develop in the sample; the loads can be increased and deflections monitored until failure of the sample.

From the Triaxial test data, it is possible to extract fundamental material parameters about the sample, including its angle of shearing resistance, apparent cohesion, and dilatancy angle.

These parameters are then used in computer models to predict how the material will behave in a larg-er-scale engineering application. An example would be to predict the stability of the soil on a slope, whether the slope will collapse or whether the soil will support the shear stresses of the slope and remain in place.

TECHNICAL SPECIFICATIONS:

Product Code	Dimension	Description	Weight	Power
SL 0945	550x650x1100 mm	Triaxial Universal Electomechnic Test Machine	95 kg	750 W

Deaired Water Apparatus

BS 1377

There are several variations of the Triaxial test:

Consolidated Drained (CD)

In a 'consolidated drained' test the sample is consolidated and sheared in compression slowly to allow pore pressures built up by the shearing to dissipate. The rate of axial deformation is kept constant, i.e., strain is controlled. The idea is that the test allows the sample and the pore pressures to fully consolidate (i.e., adjust) to the surrounding stresses. The test may take a long time to allow the sample to adjust, in particular low permeability samples need a long time to drain and adjust strain to stress levels.

Consolidated Undrained (CU)

In a 'consolidated undrained' test the sample is not allowed to drain. The shear characteristics are measured under undrained conditions and the sample is assumed to be fully saturated. Measuring the pore pressures in the sample (sometimes called CUpp) allows approximating the consolidated-drained strength. Shear speed is often calculated based on the rate of consolidation under a specific confining pressure (whilst saturated). Confining pressures can vary anywhere from 1 psi to 100 psi or greater, sometimes requiring special load cells capable of handling higher pressures.

Unconsolidated Undrained (UU)

TECHNICAL SPECIFICATIONS:

Product code	Dimensions
SL 0946	Software to Perform CU-CD Triaxial Tests
SL 0947	Software to Perform UU Triaxial Tests

In an ' unconsolidated undrained' test the loads are applied quickly, and the sample is not allowed to consolidate during the test. The sample is compressed at a constant rate (strain-controlled).

Our Triaxial Test System provides automated triaxial compression tests on cylindrical undisturbed and remolded soil samples. Unconsolidated undrained (UU), consolidated drained (CD) and consolidated undrained (CU) compression tests can be automatically run, controlled and reported using this apparatus.

The Triaxial Testing Apparatus consists of a 50 KN capacity Load Frame, Platen adaptors, dial gauge or digital transducer assembly, Triaxial Cell, Base and pressure system.

The Triaxial Testing Apparatus provide variable speed from 0.399999”(9.99999 mm) per minute to as low as 0.000001” (0.00001 mm) per minute.

An electronic control system with touch-sensitive keypad for precise setting, control and viewing of all load frame functions.

The Data Acquisition and Controls System (DA/CS) for automated data acquisition and recording of test parameters supplied with complete set of Electronic Measurement, Transducers for load, displacement, pressure and volume change.

The Triaxial Software for recording, analysis and report generation, master control panel and de-aired water tank system for precise applications of confining, back and saturation pressures.

Oil and Water Constant Pressure System

The Oil and Water Constant Pressure Unit is extremely versatile and can be used in conjunction with a wide range of test equipment. The unit provides continuous variable pressure up to 1700 kPa. Pressure is increased or decreased simply by turning a control knob.

The Unit is used for providing cell/back pressure in triaxial tests. The apparatus is supplied with out a gauge for those customers who have suitable pressure monitoring equipment.

As optional equipment for monitoring the pressure:
- The Digital Pressure Gauge
- The pressure transducer

The machine features a clear hydraulic/water interface reservoir and up to 1 liter capacity of water is available under pressure. Supplied complete with 2 liters of No.46 regular hydraulic oil.

TECHNICAL SPECIFICATIONS:

Product Code	Dimension	Description	Weight
SL 0948	300x250x250 mm	Oil and Water Constant Pressure Unit	7.5 kg
SL 0949	150x150x100 mm	Digital Vacuum and Pressure Gauge	0.6 kg

Automatic Volume Change Unit

The Unit consists of a piston connected to a 25 mm travel linear transducer which is sealed against a precision machined calibration chamber so that the linear movement of the piston is exactly proportional to the volume of water in the calibration chamber.

The apparatus creates an electrical signal proportional to the volume of water flowing through the unit. By connecting it to the data acquisition system the measured volume change will be used by software during the test and in final report.

Capacity : 100 cm^3
Transducer Input : up to 12 V DC
Accuracy : ± 0.1 ml

TECHNICAL SPECIFICATIONS:

Description	Automatic Volume Change Unit
Product code	SL 0950
Dimensions	260x260x400 mm
Weight	5 kg

Pressure Transducer and Block for Triaxial Test Cells

The Pressure Transducer is used for the measurement of cell or back or pore pressure of water in triaxial test systems and also should be used with a Control Unit or a data logger

The Block for triaxial test cells is used for connection of the pressure transducers and de-airing in the water hoses.

TECHNICAL SPECIFICATIONS:

Product Code	Description
SL 0951	Pressure Transducer, 2000 kPa
SL 0952	Blockwith One Connection Line for Triaxial Test
SL 0953	Blockwith Three Connection Line for Triaxial Test

De-Airing Water Systems

The De-Airing Water Apparatus is a compact and self-contained equipment which can de-air water quickly and efficiently down to levels of dissolved oxygen acceptable for geotechnical test methods. The apparatus used in conjunction with the de-airing tank. Air is removed from the water by a vacuum system. De-airing tank should be ordered separately.

The first option for de-airing water;
- De-Airing Water Apparatus
- De-Airing Water Tank
- Vacuum Control and Water Connection Panel with Regulator and Vacum Gage Manometeror Connection Panel for Vacuum and Water with Vacuum Gage(These panels are optional)
- Plastic Hose

The second option for de-airing water;
- Vacuum Pump
- Filter Flask or Air Drying Unit / Water Trap
- De-Airing Water Tank
- Vacuum Control and Water Connection Panel with Regulator and Vacum Gage Manometeror Connection Panel for Vacuum and Water with Vacuum Gage(These panels are optional)
- Plastic Hose

By using Vacuum Control and Water Connection Panel, vacum pressure degree can be regulated.

By using de-airing water equipment can be used without repeated assembling the hoses.

TECHNICAL SPECIFICATIONS:

Product code	Description	Dimensions	Weight (approx.)
SL 0954	De-Airing Water Apparatus	465x240x340 mm	15 kg
SL 0955	Vacuum Control and Water Connection Panel with Regulator and Vacum Gage Manometer	450x150x500 mm	7 kg
SL 0956	De-Airing Water Tank, 7 L.	250x250x250 mm	2.7 kg
SL 0957	Vacuum Pump 51 L/min. Capacity	300x150x240 mm	8.5 kg
SL 0958	Air Drying Unit / Water Trap, Vacuum Type	70x80x170 mm	0.5 kg

TECHNICAL SPECIFICATIONS:

Product Code	Description	UU	UU-CU-CD
SL 0945	Triaxial Universal Electomechnic Test Machine	1	1
SL 1021	Load Cell 5 kN	1	1
SL 0960	Triaxial cell for 38 mm and 50 mm samples	1	1
SL 0961	Triaxial cell for 70 mm and 100 mm samples	1	1
SL 0952	Block with one connection line for triaxial test cells	1	-
SL 0953	Block with 3 connection lines for triaxial test cells	-	1
SL 0951	Pressure transducer	1	3
SL 0948	Oil and water constant pressure system	1	2
SL 0950	Automatic volume change unit	-	1
SL 0959	Static unilogger 4 channels	-	1
SL 0947	Software to perform UU triaxial tests	1	1
SL 0946	Software to perform CU-CD triaxial tests	-	1
SL 0956	De-Airing water tank, 7L. and hose	1	1

Triaxial Cells

The cell has been designed and treated to minimize corrosion. Particular attention has been paid to the quality of finish between the piston and the head. Final assembly includes the fitting of an O-ring seal and the use of a special lubricant to reduce friction to a minimum and eliminate water leakage. The piston load capacity is designed to accept high axial loads which may be present during the final stages of a test.

Each cell has five take-off positions drilled in the base for top drainage/back pressure, pore water pressure and bottom drainage. Three no volume change valves and anvil for displacement transducer are supplied complete with the cell. Each cell will accept a range of base adaptors and various accessories for testing a wide range of specimens.

The cell capacity is designed to tolerate confining pressures as high as 1700 kPa which is enough for simulating most in-situ conditions.

For cell accessories and sample prepatarion accessories see next page.

TECHNICAL SPECIFICATIONS:

Product Code	Dimension	Description	Weight
SL 0960	160x160x400 mm	Triaxial cell for 38 mm and 50 mm samples	4.5 kg
SL 0961	210x210x550 mm	Triaxial cell for 70 mm and 100 mm samples	12 kg

Cell Accessories

Sample Diameter(mm)	38	50	70	100	UUtest	CU CD test
Base Adaptor	SL 0962	SL 0962	SL 0963	SL 0964	YES	YES
Porous Top Cap	SL 0965	SL 0966	SL 0967	SL 0968	YES	YES
Nylon Tubing for Drainage	SL 0969	SL 0970	SL 0971	SL 0972	-	YES
Pair of Porous Discs	SL 0973	SL 0974	SL 0975	SL 0976	-	YES
Rubber Membrane	SL 0977	SL 0978	SL 0979	SL 0980	YES	YES
Membrane Placing Tool (Strecher)	SL 0981	SL 0982	SL 0983	SL 0984	YES	YES
0 Ring (10pcs.)	SL 0985	SL 0986	SL 0987	SL 0988	YES	YES
0 Ring Placing Tool	SL 0989	SL 0990	SL 0991	SL 0992	YES	YES
Filter Drain Paper (50 pcs.)	SL 0993	SL 0994	SL 0995	SL 0996	-	YES
Filter Paper Discs (100 pcs.)	SL 0997	SL 0998	SL 0999	SL 1000	-	YES
Plastic Discs (2 pcs.)	SL 1001	SL 1002	SL 1003	SL 1004	YES	-

Sample Preperation Accessories

Sample Diameter	38 mm	50 mm	70 mm	100 mm
Split Sand Former	SL 1005	SL 1006	SL 1007	SL 1008
Split Mould	SL 1009	SL 1010	SL 1011	SL 1012
Cutter	SL 1013	SL 1014	SL 1015	SL 1016
Aliminium Dolly	SL 1017	SL 1018	SL 1019	SL 1020

Microspear, Moisture and Temperature

BS1377-7, BS1377-8

DESCRIPTION:

The instrument measures moisture and temperature of minerals and building materials at depths up to six feet (nearly 2 meters) - simply by insertion. The digital readings are shown instantly. It has a built-in computer which gives it the fl exibility to handle a wide range of materials and water contents. This instrument will give you quick results and an alternative for sampling and testing using balances or ovens.

Any environment where minerals or building materials are being shipped, stored or processed

ORDERING:

SL 1022
Microspear, 1 meter long

SL 1023
Microspear, 2 meter long

TECHNICAL SPECIFICATIONS:

Measurement Response	2 seconds
Moisture Range	0-25%
Moisture Resolution	±0.1%
Moisture Accuracy	±0.5% of reading
Temperature Range	-20°C to 60°C
Temperature Resolution	0.1°C
Temperature Accuracy	<0.5°C
Weight	1500g
Material Selections	6 (user configurable)
Power Requirements	4 x 1.5v AA alkaline cells (or equivalent)
Shaft Colour Options	Grey / Orange / Yellow / Blue

Soil Resistivity Meter

ASTM G 57, ASTM G 187, AASHTO T288

DESCRIPTION:

The Soil Resistivity Meter is determined to find soil resistivity for a variety of applications, including pipelines, tanks, wells, etc.....

It is used in the field or in the lab with the optional Soil Box, that is made of strong plastic resins allowing for rugged field use. Material is clear for easy visual inspection and cleaning.

Soil Resistivity Meter ASTM G57, G187 comes complete with
Soilbox
Brass connectors
Banana plug leads, Red
Banana plug leads, Black

Soil Resistivity Meter AASHTO T 288 comes complete with
Soil box
Electrode plates, ss
Electrode hardware, ss
Leads with clamps

TECHNICAL SPECIFICATIONS:

Product code	Dimensions
SL 1026	4x6x23.75cm
SL 1027	38x101.5x152.3 mm
SL 1024/SL 1025	273x 273x 165 mm

MAIN FEATURES:

- Display of both speed and displacement with high resolution.
- Box group mounted on ball track with high quality antifriction system.
- Read value results are immediate and of extreme accuracy
- Extremely easy and practical use .

ORDERING:

SL 1024
Soil Resistivity Meter ASTM G57, G187 complete

SL 1025
Soil Resistivity Meter AASHTO T 288 complete

ACCESSORIES:

SL 1026
Soil box ASTM G57, G187

SL 1027
Soil box AASHTO T 288

SL 1028
Brass connectors

SL 1029
Banana plug leads, Red

SL 1030
Banana plug leads, Black

SL 1031
Electrode plates, ss

SL 1032
Electrode hardware, ss

SL 1033
Leads with clamps

Portable Soil Conductivity Meter

ASTM D5334; ASTM D5930; IEEE 442-1981

DESCRIPTION:

The Soil Conductivity Meter is a portable thermal conductivity meter used to measure thermal conductivity and thermal resistivity. Perfect for testing the thermal conductivity of soil, polymers, viscous liquids, and other soft materials; as well as testing the thermal conductivity of concrete, rock, stone, or other hard materials. Tests can be performed with the push of a button. The collected data is automatically analyzed and results are displayed immediately.

The Transient Line Source follows ASTM D5334. The sensor needle consists of a thin heating wire and temperature sensor sealed in a 100 or 50 mm steel tube.

The sensor is completely inserted into the sample to be tested. Heat is delivered to the sample using a constant current source (q) and the temperature rise is recorded over a defined period of time. The slope (a) from a plot of temperature rise versus the logarithm of time is used in the calculation of thermal conductivity (k). The higher the thermal conductivity of a sample, the lower the slope. For samples of low thermal conductivity, the higher the slope.

MAIN FEATURES:

- Portable, Economical, and Accurate
- Easy to use
- Standard 100 mm sensor for soft materials
- Optional 50 mm sensor for hard materials
- Soil Conductivity Meter

ORDERING:

SL 1034
Soil Resistivity Meter
ASTM G57, G187
complete

SL 1035
Soil Resistivity Meter
AASHTO T 288
complete

ACCESSORIES:

SL 1036
Rock needle
and concrete

SL 1037
Rock needle

SL 1038
Thermal conductivity,
reference materials

TECHNICAL SPECIFICATIONS:

Materials	Soil, Rock, Concrete, & Polymers
Measurement Capabilities	Bulk Properties
Thermal Conductivity	0.1 to 5 W/mK
Thermal Resistivity	0.2 to 10 mK/W
Measurement Time	3 min. (100mm) / 5 min. (50mm)
Reproducibility	Typically better than 2%
Accuracy	Typically better than 5%
Temperature Range	-40 to 100°C
Smallest Sample (100 mm)	50 mm (diameter or square)x100 mm
Smallest Sample (50 mm)	50 mm (diameter or square)x50 mm
Largest Sample Size	Unlimited

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