



GEOTECHNICAL

TESTING EQUIPMENT

THE BEST IN TEST

AGGREGATE



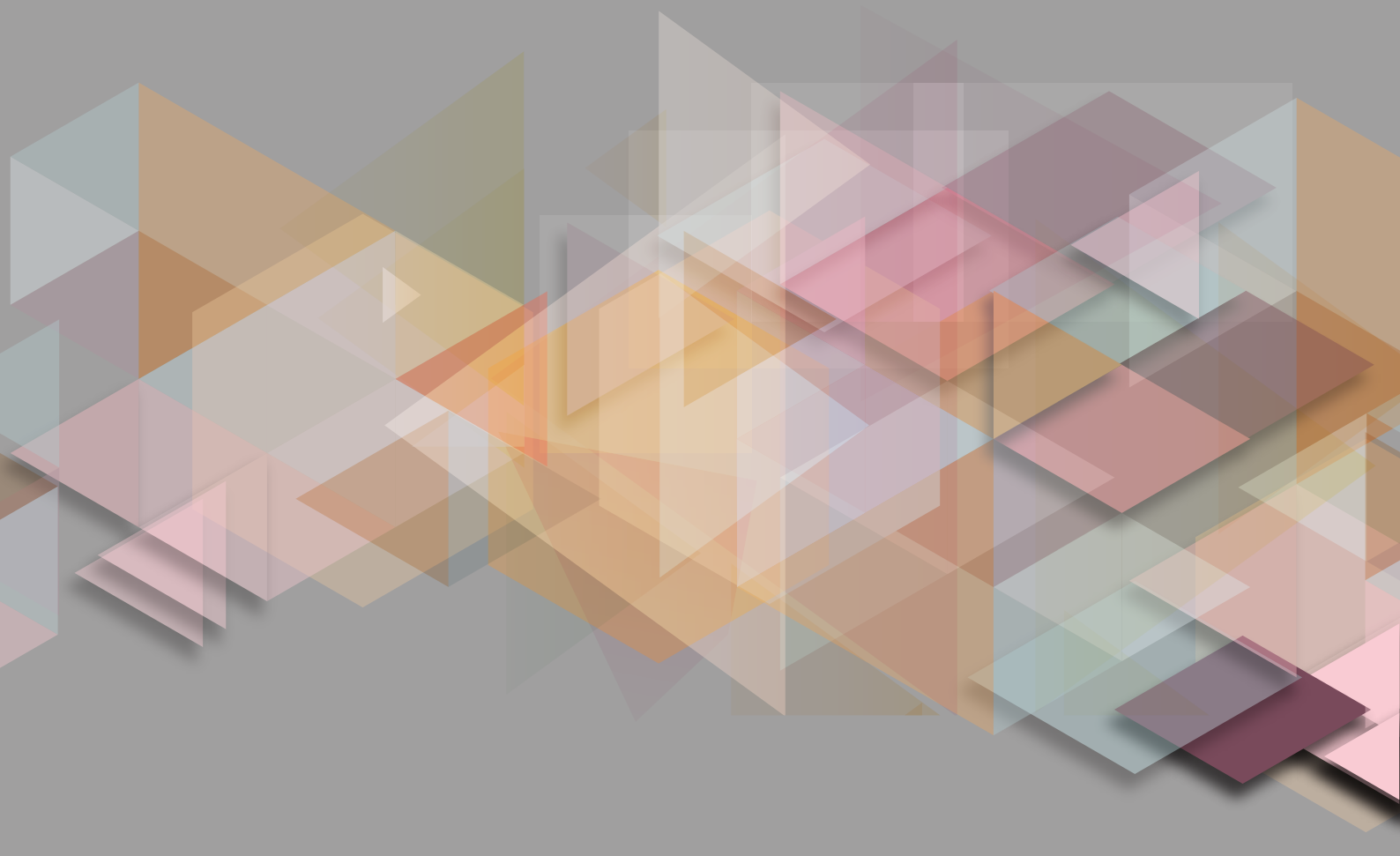
Aggregate

Aggregate is a component of a composite material used to resist compressive stress and provide bulk to the composite material.

For efficient filling, aggregate should be much smaller than the finished item, but have a wide variety of sizes.

It is vastly used in most combination of construction material such as concrete and asphalt technology to which aggregates may either be specified or designed to suit a particular engineering requirement while not suiting another.

The properties of aggregates can vary and hence affect the final construction material. Therefore it is important to test the different parameters such as resistance to polishing, particle size, shape and texture, relative, bulk density, crushing value, impact value, organic impurities, compacted densities, specific gravity, soundness and abrasion resistance.



Flakiness Sieves

BS 812-105.1

DESCRIPTION:

Flakiness Sieves are used to determine particle size shape or geometrical characteristics of the aggregates. Aggregate particles are considered as flaky when their thickness is less than 0.6 of their mean sieve size.

Aggregate to be classified is separated into seven sieve fractions from 6.3 to 63 mm and each fraction is examined separately. The dimensions of each sieve comply with the relevant International Standard, manufactured from heavy gauge steel sheet and coated with electrostatic paint. The accuracy of the slot size is better than 0.1 mm.

TECHNICAL SPECIFICATIONS:

	Slot size	Weight (approx.)	Dimensions
AG 0101-1	4.9x30 mm	1.5 kg	300x220x80 mm
AG 0101-2	7.2x40 mm	1.6 kg	320x240x80 mm
AG 0101-3	10.2x50 mm	1.9 kg	300x220x80 mm
AG 0101-4	14.4x60 mm	2.0 kg	360x260x80 mm
AG 0101-5	19.7x80 mm	2.2 kg	390x280x80 mm
AG 0101-6	26.3x90 mm	2.6 kg	420x300x80 mm
AG 0101-7	33.9x100 mm	2.9 kg	470x320x80 mm

MAIN FEATURES:

- Made of Heavy gauge steel sheets.
- Coated with electrostatic paint.

ORDERING:

AG 0101
Flakiness Index Sieve Set consists of 7 sieves.



Grid Sieves

EN 933-1; EN 933-3; NF P18-561; UNI 8520-18; NLT 354

DESCRIPTION:

Used for the determination of the flakiness index of the aggregate. Consisting of an electrostatically painted frame and 5 mm diameter stainless steel bars with apertures state below.

TECHNICAL SPECIFICATIONS:

	Aperture	Weight (approx.)	Dimensions
AG 0102-1	2.5 mm	3.3 kg	340x320x80 mm
AG 0102-2	3.15 mm	3.3 kg	340x320x80 mm
AG 0102-3	4 mm	3.8 kg	340x320x80 mm
AG 0102-4	5 mm	3.8 kg	340x320x80 mm
AG 0102-5	6.3 mm	3.7 kg	340x320x80 mm
AG 0102-6	8 mm	3.6 kg	340x320x80 mm
AG 0102-7	10 mm	3.4 kg	340x320x80 mm
AG 0102-8	12.5 mm	3.2 kg	340x320x80 mm
AG 0102-9	16 mm	4 kg	340x320x80 mm
AG 0102-10	20 mm	3.2 kg	340x320x80 mm
AG 0102-11	25 mm	3.2 kg	340x320x80 mm
AG 0102-12	31.5 mm	2.9 kg	340x320x80 mm
AG 0102-13	40 mm	2.7 kg	340x320x80 mm



MAIN FEATURES:

- Made of electrostatic steel frame.
- Stainless steel bars.

ORDERING:

AG 0102
Grid Sieves Set

Flakiness and Thickness Gauge

BS 812-105.1

DESCRIPTION:

Flakiness Gauge is used to determine if the aggregate particles are to be considered as flaky, i.e. their thickness is less than 0.6 of their nominal size.

Length Gauge classifies aggregate elongation by measuring the length of individual particles.

Aggregate particles are considered elongated when their length is more than 1.8 of their nominal size. Length Gauge test is not applicable to material retained on 63.0 mm BS test sieve.

MAIN FEATURES:

- Made of stainless steel.

ORDERING:

AG 0103
Flakiness Gauge

AG 0104
Length Gauge



TECHNICAL SPECIFICATIONS:

Product code	Weight	Dimensions
AG 0103	0.4 Kg	310x130x10 mm
AG 0104	0.82 Kg	370x70x70 mm

Shape Index Gauge

EN 933-4

DESCRIPTION:

Shape Index Gauge is used to determine the shape factor of individual aggregates by comparing the ration of length to width.

TECHNICAL SPECIFICATIONS:

Dimensions	450x150x50 mm
Weight (approx.)	0,4 kg



MAIN FEATURES:

- Stainless steel.

ORDERING:

AG 0105
Shape Index Gauge

Particle Density Specific Gravity and Water Absorption (Sand Absorption Cone and Tamping Rod)

EN 1097-6; 12697-6; BS 812-2; UNI 8520-13-16; ASTM C128-C127; NLT 154; DIN 12039; AASHTO T85,T84

DESCRIPTION:

The Sand Absorption Abraham Cone Set is used in determining the specific gravity and water absorption of fine aggregates smaller than 10 mm.

The apparatus is manufactured from plated steel for protection against corrosion.

MAIN FEATURES:

- Plated steel.

ORDERING:

AG 0106
Sand Absorption Cone and Tamping Rod complete set

ACCESSORIES:

AG 0106-1
Sand Absorption Cone

AG 0106-2
Tamping Rod



TECHNICAL SPECIFICATIONS:

Dimensions	90x90x180 mm
Weight (approx.)	0,5 kg

Quantab Chloride and Sulfate Content Instant Test Strips

EN 1097-6; 12697-6; BS 812-2; UNI 8520-13-16;
ASTM C128-C127; NLT 154; DIN 12039; AASHTO T85,T84

DESCRIPTION:

Quantab chloride titrators can be used for estimating the chloride content of aqueous solutions.

They are suitable for site testing and quality control of aggregates requiring less than 30 minutes to obtain result.

The determination is based on the reaction of the silver dichromate strip with the chloride in the sample solution, and the proportional content of chloride in the sample is indicated by the calibration chart which is supplied complete with the test kit.

MAIN FEATURES:

- Easy to use, disposable, and inexpensive
- A great way to obtain quick, quantitative answers in the field or in the lab

ORDERING:

AG 0107

Quantab Chloride Titrator strips. Type 1175 titration range 0.005% to 0.1% (30 to 600ppm) NaCl. Pack of 50

AG 0108

Quantab chloride titrator strips. Type 1176 titration range 0.05% to 0.1% (300 to 6000ppm) NaCl. Pack of 40
A qualitative or semi-quantitative test is recommended for determining sulfate ions in aqueous solutions. Sulfate test strips are convenient measuring devices for sulfate content.

AG 0109

Sulfate Test Strips detection range 200 to 900 mg/l. Pack of 100.



TECHNICAL SPECIFICATIONS:

Number of tests	40	50	100
Parameter	Chloride - as Cl-	Chloride - as Cl-	Sulfate
Platform	Test Strip	Test Strip	Test Strip
Range	300 - 6000 Cl-	30 - 600 Cl-	200 to 900 mg/l.
Ship Wt. (lbs)	0.2	0.2	
Smallest Increment Steps	10-20 ppm increments	10-20 ppm increments	

Organic Impurities in Fine Aggregate

ASTM C40; AASHTO T21

TECHNICAL SPECIFICATIONS:

Weight (approx.) 300g



DESCRIPTION:

If aggregate contains organic impurities it may not be suitable for inclusion in concrete. Organic impurities, usually tannic acid and its derivatives, may interfere with the chemical reactions of hydration. Impurities are more likely to be found in fine (sand) aggregate.

Organic Impurities complete Test Set, containing Graduated Bottle, Reference Color Comparison Chart (Sodium Hydroxide Reagent is not included with this kit and should be sourced locally).

MAIN FEATURES:

- Compact, robust and easily portable for site use

ORDERING:

AG 0110

Organic Impurities complete Test Set.

ACCESSORIES:

AG 0110-1

Graduated Bottle, 300 ml

AG 0110-2

Reference Color Comparison Chart

AG 0110-3

Sodium Hydroxide Solution

Aggregate Crushing Value and Ten Percent Finess Value (ACV/TFV)

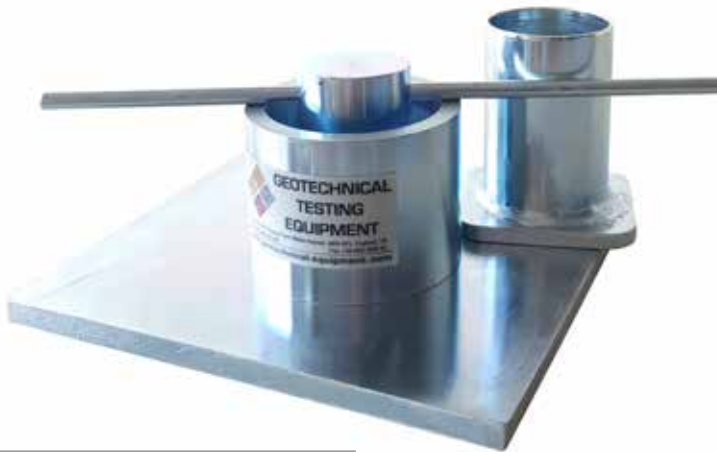
812-110, 111

DESCRIPTION:

Aggregate crushing Value provides a relative measure of the resistance of an aggregate to crushing under a gradually applied compressive load. Ten Percent Fines Value used for testing aggregate smaller than 10 mm.

Comprises:

150 mm or 75mm diameter steel cylinder, plunger, base plate, tamping rod and metal measure.



TECHNICAL SPECIFICATIONS:

	AG 0111	AG 0112
Dimensions	250x250x600 mm	120x120x350 mm
Weight approx.	29 Kg	6 Kg

MAIN FEATURES:

- All parts are powder coated or galvanized.

ORDERING:

AG 0111
Aggregate Crushing Value Apparatus 150 mm dia.

AG 0112
Aggregate Crushing Value Apparatus, 75 mm dia.

ACCESSORIES:

AG 0111-1
Metal Measure 115 mm diameter x 180 mm deep.

AG 0111-2
Metal Measure 57 mm diameter x 90 mm deep.

AG 0111-3
Tamping Rod 8 mm diameter x 300 mm long

Aggregates Impact Value

EN 812-112

DESCRIPTION:

The Aggregate Impact Value machine has been developed for determining the impact value of aggregates.

Manufactured from plated steel against corrosion, a counter fitted to the machine automatically records the number of blows delivered to the sample.

The AIV is supplied complete with 75 mm diameter x 50 mm deep, cylindrical measure and steel tamping rod.



MAIN FEATURES:

- Cylindrical measure and steel tamping rod.

ORDERING:

AG 0113
Aggregate Impact Value apparatus complete.

TECHNICAL SPECIFICATIONS:

Weight	Dimensions
52 Kg	450x350x850 mm

Los Angeles Abrasion Machine

DESCRIPTION:

Los Angeles Abrasion Machine is used for determination of aggregates resistance to fragmentation.

The machine consists of an electronic control unit and a rolled steel drum having an inside diameter of 711 mm and internal length 508 mm.

The drum is rotated at a speed of between 31 and 33r.p.m. The internal shelf is provided with the machine is conforming to ASTM and EN standards.

The machine is equipped with automatic counter, which allows stopping when the preset number of revolutions is completed.

There is a steel tray supplied with machine for easy discharge of specimen.

Safety Cabinet model are installed with electronic control unit and electric safety device which automatically stops the rotation of drum when the door is opened, conforming to CE directives.

EN 1097-2, 12697-17, 13450; ASTM C131, C535; AASHTO T96

MAIN FEATURES:

- A steel tray is supplied with the machine for easy discharge of specimen and abrasive charges.
- Equipped with an electric safety device which automatically stops the rotation

ORDERING:

AG 0114

Los Angeles Abrasion Machine
220V, 50-60 HZ

AG 0115

Los Angeles Abrasion Machine
with safety cabinet, 220V,
50-60 HZ

ACCESSORIES:

AG 0114-1

Set of 11 abrasive charges
conforming to EN

AG 0114-2

Set of 12 abrasive charges
conforming to ASTM

TECHNICAL SPECIFICATIONS:

	AG 0114	AG 0115
Dimensions	850x1000x1100 mm	1100x1150x1250 mm
Weight(approx.)	350 kg	505 kg



Abrasion Testing Machine

EN 1341, 1342, 1343

DESCRIPTION:

Abrasion Testing Machine is designed to determine the resistance to abrasion and wear of natural stones and concrete products.

The abrasion wheel is 70 mm thick and rotates with speed of 75 r.p.m.

The machine is equipped with digital counter which stops the rotation at the preset number of revolutions.

MAIN FEATURES:

- Auto Digital Counter
- Complete with Abrasive Sand

ORDERING:

AG 0116
Abrasion Testing Machine

ACCESSORIES:

AG 0116-1
Abrasive Sand 25Kg

TECHNICAL SPECIFICATIONS:

Weight	Power
85 Kg	220 V, 50-60 Hz, 1 ph



Digital Point Load Apparatus

EN 1977-2, ASTM D-5731

DESCRIPTION:

The point tester is used to measure rock strength in the field or in the laboratory.

A load frame, hydraulic jack and digital display are mounted on the base of a carrying case.

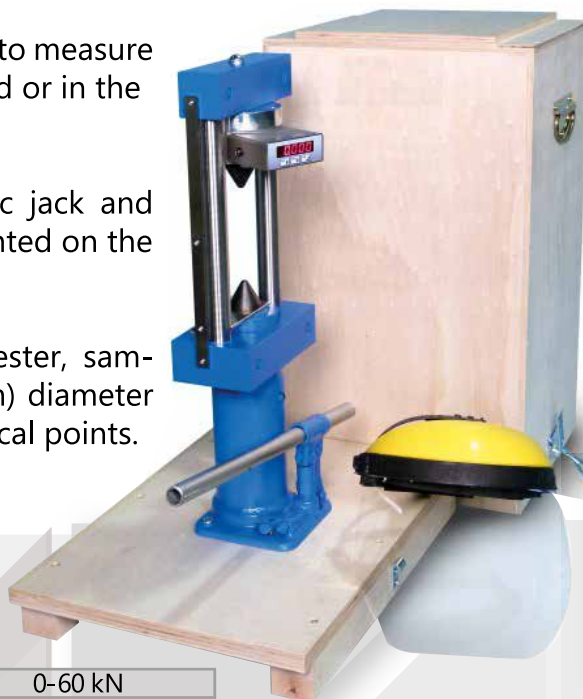
With this point load tester, samples up to 4" (101.6mm) diameter can be tested on 2 conical points.

A graduated scale indicates distance between conical points and is also used to measure specimen diameter.

Applied load is digitally displayed to 0.001Kn ; accuracy is $\pm 1\%$; range is 0 to 56Kn. Display shows maximum load and will also read in lb and tons.

TECHNICAL SPECIFICATIONS:

Load range	0-60 kN
Digital display	2x16 characters
Resolution	32.000 div.
Accuracy	$\pm \% 1$
Case dimensions	800 x 500 x 280 mm
Weight	15 kg



MAIN FEATURES:

- Complete Set Easy Operation
- Load measured in both kN and Mpa
- Serial port for PC connection

ORDERING:

AG 0117
Digital Point load apparatus

Nordic Abrasion Machine

EN 1097-1

DESCRIPTION:

Nordic Abrasion Machine has been developed for testing the resistance of aggregates to wear by abrasion from studded tires.

The test is performed on natural or artificial stones and aggregates between 11.2 mm and 16.0 mm.

It consists of a rotating aggregate in a drum containing steel abrasive balls and water.

The machine consists of an electronic control unit and a rolled stainless steel drum having an internal diameter of 206.5 mm, internal length of 335 mm and thickness of 6 mm.

The drum is rotated at a speed of 90 ± 3 r.p.m. 3 wings are installed inside of the drum to allow the balls and aggregates to be mixed properly.

The abrasion loss rate of aggregates is calculated after the specified number of revolutions stated in the relevant standard.

11,1 mm diameter steel balls (3.5 kg.) should be ordered separately.

Dimensions	720x400x650 mm
Weight (approx.)	70 Kg
Power	600 W

TECHNICAL

SPECIFICATIONS:



MAIN FEATURES:

- Complete Set Easy Operation

ORDERING:

AG 0118
The Nordic Abrasion Machine

ACCESSORIES:

AG 0118-1
Steel Balls, Ø 11 mm, 3.5 kg

Aggregate Abrasion Value (AVV)

EN 1097-8; EN 1341, 1342, 1343; BS 812-113

DESCRIPTION:

The Abrasion Machine is used to determine the Aggregate Abrasion Value (AAV) by testing the measure of the resistance of aggregates to surface wear by abrasion.

The Abrasion Machine consists of a flat circular cast iron grinding lap wheel of 600 mm dia. which rotates in a horizontal plane at a speed of 28-31 r.p.m.

The abrasion sand is fed across the surface of the specimen sample through a special funnel.

The machine is supplied complete with two specimen moulds, two trays, two flat plates, weights and clamps.

Dimensions	800x700x1100 mm
Weight (approx.)	200 Kg
Power	370 W

TECHNICAL

SPECIFICATIONS:



MAIN FEATURES:

- Complete Set Easy Operation

ORDERING:

AG 0119
The Aggregate Abrasion Value (AAV) Machine

ACCESSORIES:

AG 0119-1
Specimen Molds, 2 units

AG 0119-2
Trays, 2 units

AG 0119-3
Flat Plates, 2 units

AG 0119-4
Weights

AG 0119-5
Clamps

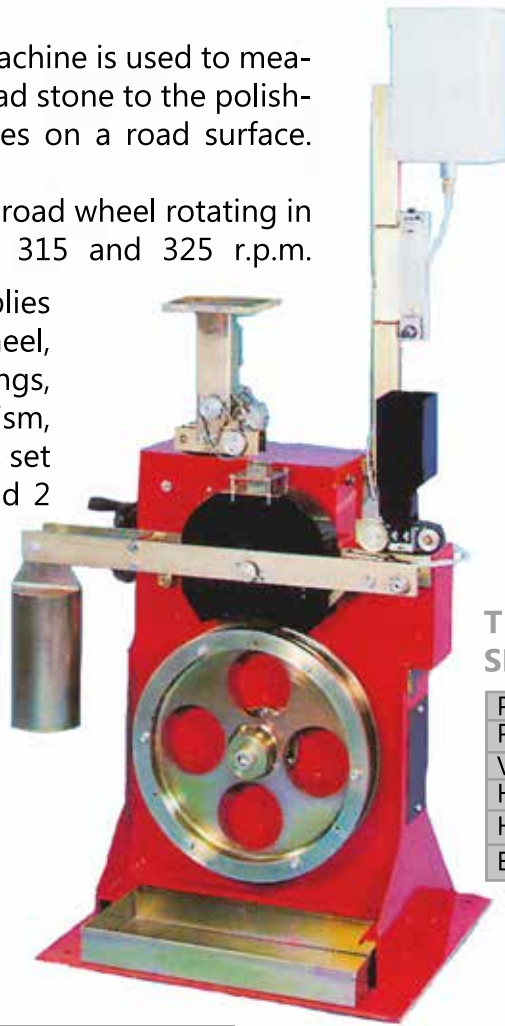
Accelerated Polishing Machine

DESCRIPTION:

Accelerated Polishing Machine is used to measure the resistance of road stone to the polishing action of vehicle tires on a road surface.

The machine consists of road wheel rotating in the speed of between 315 and 325 r.p.m.

The machine is supplied complete with road wheel, side plate, rubber rings, abrasive feed mechanism, corn emery, flour emery, set of 4 specimen mold and 2 mold plates.



EN 1097-8; EN 1341, 1342, 1343

MAIN FEATURES:

- Complete Set Easy Operation
- Heavy welded steel mainframe, standing in adjustable pads.

ORDERING:

AG 0120
Accelerated Polishing Machine

TECHNICAL SPECIFICATIONS:

Packed dimensions	820 x 820 x 1260 mm high
Packed weight	205 kg
Volume	0.79 cubic meters
Height - Frame	1230 mm
Height - Water tank	1550 mm
Electrical Supply	230 V/110 V 50/60 Hz 1 ph 13 amp

Micro-Deval Testing Machine

DESCRIPTION:

The Micro Deval Testing Machine used to determine the resistance of wear for 25-50mm size aggregates. The machine consists of a steel frame, four stainless steel cylinders, and 25kg of 10 mm diameter stainless steel spheres.

Fitted with an automatic digital counter that allows the machine to stop automatically at preset number of revolutions. Stainless steel 200x 154 drums rotates at speed of 100 (±5) r.p.m



EN 1097-1

MAIN FEATURES:

- Complete Set Easy Operation

ORDERING:

AG 0121
Micro-Deval Apparatus complete

ACCESSORIES:

AG 0121-1
Stainless Steel Drum 200x154 mm

AG 0121-2
Abrasion Charges, EN, 25kg of 10 mm dia

TECHNICAL SPECIFICATIONS:

Dimensions	1050x450x950 mm
Weight (approx.)	105 Kg
Power	550 W

Skid Resistance and Friction Tester

DESCRIPTION:

Used for the measurement of surface friction properties, the apparatus is suitable for both site and laboratory applications and for Polished Stone Value (PSV) using curved specimens from accelerated polishing tests.

Supplied complete with additional scale for tests on polished stone value specimens and 6 rubber sliders for site usage.

TECHNICAL SPECIFICATIONS:

	AG 0122
Dimensions	1100x1150x1250 mm
Weight(approx.)	505 kg
Power	750 W



EN 1341; EN 1342; EN 1338; EN 1097-8; ASTM E303; EN 13036-4; EN 1338

MAIN FEATURES:

- Low friction release mechanism
- Extremely light pointer
- Easy and reliable height adjusting system

ORDERING:

AG 0122
Skid resistance and friction test set

ACCESSORIES:

AG 0122-1
Mounted rubber slider, 32 mm

AG 0122-2
Mounted rubber slider, 76 mm

AG 0122-3
Metal base plate

High Capacity Screen Shaker

DESCRIPTION:

The High Capacity Screen Shaker is ideal for sizing large quantities of crushed stones, sand, gravel, slag, coal, coke, ores, pellets and similar materials.

The screen shaker has a capacity of about 30 kg of sample. For use with 457x660x75mm dimensions screens.

TECHNICAL SPECIFICATIONS:

Product	Dimensions	Weight (approx.)	Power
Screen Shaker	587x787x850 mm	170 kg	550 W
Screen Trays	667x452x67 mm	7 kg	



EN 933-1; EN 933-3; NF P18-561; UNI 8520-18; NLT 354

MAIN FEATURES:

- Made of electrostatic steel frame.
- Stainless steel bars.

ORDERING:

AG 0123
High capacity screen shaker

ACCESSORIES:

AG 0123-1
Set of Screen Shaker containing all sizes

Product Code	Aperture mm (in)
AG 0123-2	100 mm (4 in)
AG 0123-3	90 mm (3 1/2 in)
AG 0123-4	75 mm (3 in)
AG 0123-5	50 mm (2 in)
AG 0123-6	45 mm (1 3/4 in)
AG 0123-7	37.5 mm (1 1/2 in)
AG 0123-8	31.5 mm (1 1/4 in)
AG 0123-9	25 mm (1 in)
AG 0123-10	22.4 mm (7/8 in)
AG 0123-11	19 mm (3/4 in)
AG 0123-12	16 mm (5/8 in)
AG 0123-13	12.5 mm (1/2 in)
AG 0123-14	11.2 mm (7/16 in)
AG 0123-15	9.5 mm (3/8 in)
AG 0123-16	8 mm (5/16 in)
AG 0123-17	6.3 mm (1/4 in)
AG 0123-18	5.6 mm (No. 3 1/2 in)
AG 0123-19	4.75 mm (No. 4 in)
AG 0123-20	4 mm (No. 5 in)

Slake Durability Apparatus

ASTM D4644

DESCRIPTION:

This test method has been developed for assessing the deterioration of rocks over a period of time when subjected to water immersion.

The apparatus consists of a motorized drive unit mounted on a baseplate and connected to two drums which rotate at a speed of 20 r.p.m. as per standard.

The machine has a digital display for the visualization of the residual testing time (10 minutes for ASTM D4644). The tank assemblies are filled with water to a level marked on the tank.

The test drums are manufactured from 2.00 mm mesh, 140 mm dia. x 100 mm long. Two drums are already included.

The drums can be mounted or disassembled easily with the quick-release drive units.

The apparatus comes complete with transparent tanks, basement and digital timer.

MAIN FEATURES:

- Complete with digital display
- Transparent water tanks
- Compact machine
- Drums with quick-release

ORDERING:

AG 0124
Slake Durability Apparatus

ACCESSORIES:

AG 0124-1
Pair of mesh Drums

AG 0124-2
Pair of Transparent Tanks



TECHNICAL SPECIFICATIONS:

Dimensions	733x413x305 mm
Weight (approx.)	22.5 Kg

Geotechnical Testing Equipment UK Ltd

Grange Farm, Milton Keynes
England, Great Britain
MK8 0PJ

info@Geotechnical-equipment.com
www.Geotechnical-equipment.com
Tel: +441908 766 400, 401

