

Section V

GENERAL EQUIPMENT

section V



467

This section proposes a wide range of laboratory equipment and accessories that cannot be located in a specific application, but they are utilized for general purposes and are suitable to perform properly different measuring procedures of liquids and solids, weighing, temperature, containers, still, pH, chemicals, reagents etc.



MATEST

**MECHANICAL BALANCES
ORIGINAL "OHAUS"**

MODELS:

V014

DIAL-O-GRAM Balance 310 g. capacity x 0,01 g sensitivity, triple beam with vernier. Includes stainless steel pan, zero adjustment. Weight 3 kg



V015

CENT-O-GRAM Balance 311 g. capacity x 0,01 g. sensitivity, four beams. Includes stainless steel pan, zero adjustment. Weight 3 kg

V016

TRIPLE BEAM Balance 2610 capacity x 0,1 g sensitivity. Includes stainless steel pan, set of weights. Weight 4 kg



V017

HEAVY DUTY SOLUTION Balance 20 kg. capacity x 1 g sensitivity. Complete with set of weights, sliding weight for tare up to 2270 g, holding plate 280 mm diameter. Weight 20 kg



section V



468

MATEST

ROTARY AUTOMATIC SCALES

Five pointer turns allowig a larger amplitude of the subdivision. Double quadrant and under quadrant sicking for multiples.

Oil oscillation shock-absorber; with exterior adjustment.

Displacement of the head in all positions without angulation limit. Pan, mass-produced, stainless steel.



Models	Capacity	Sensitivity
V057	60 kg	20 g
V059	150 kg	50 g

V051

BATCHING SCALE

Capacity: 200 kg.

Sens. 100 g.

Completely produced in painted metal, double oscillation, case in strong profiled, platform in reinforced steel. The sliding weight and accessories are brass made while the rod is from chromed steel. Supplied complete with set of weights.



Semi-automatic zero-centering balance

This scale with central zero is particularly suitable for predetermined weights. It has two pans; the sample is placed on the main pan and the weights are placed on the other until the pointer indicates the dial.

Weights are not included and should be ordered separately.

MODELS:

V031

Capacity 10 kg. sens. 1 g.

Dial -100 +100 g

V034

Capacity 30 kg. sens. 5 g.

Dial -250 +250 g



V031

Weights for balances

V036

SET OF BRASS WEIGHTS comprised in a wooden box.
Total weight reaching 1000 g. The set is formed by: 1x500 g, 1x200 g, 2x100 g, 1x50 g, 1x20 g, 2x10 g, 1x5 g, 2x2 g, 1x1 g

- E066-02** Weight 100 g, brass calibrated
- V036-02** Weight 0,5 kg, cast iron, calibrated
- V037** Weight 1 kg, cast iron, calibrated
- V038** Weight 2 kg, cast iron, calibrated
- V039** Weight 5 kg, cast iron, calibrated
- V040** Weight 10 kg, cast iron, calibrated
- V040-01** Weight 20 kg, cast iron, calibrated

V036-02 ÷ V040-01



V036



V035-03

Standard calibration weights

Used for the periodic verification of the balance readings.
CLASS: M1
Made in Italy
The weights are also available with ACCREDIA Calibration Certificate.

V023-01

Moisture determination balance

160 g. capacity x 0,001/0,01 g. sensitivity with tare up to 10 g.
Samples are dried by a infrared lamp with adjustable heat control.
A built-in-timer 0-61 min. switches off the heater at the end of the drying cycle which is signaled by a bell.
Moisture loss percentage and residual mass are read directly from the lighted scale.
Power supply: 230V 1ph 50/60 Hz



V023-01

V065-02

Electronic analytical balance

Capacity: 250 g
Readability: 0,1 mg
Tolerance: +/- 0,2 mg
Outer keyboard with direct reading on a wide LCD display.
Data interface: RS 232
Single pan dia. 80 mm
Tare range: by subtraction up to full capacity.
Dust proof plexiglass cover.
Ideal for very accurate weightings and for heat of hydration cement tests.
Power supply: 230V 50/60Hz 1ph
Dimensions: 315 x 225 x 330 mm
Weight : 10 kg approx.



V065-02

Code	Weight	SIT Certificate	Plastic box
V035-01	50 g	no	yes
V035-01CER	50 g	yes	yes
V035-02	100 g	no	yes
V035-02CER	100 g	yes	yes
V035-03	200 g	no	yes
V035-03CER	200 g	yes	yes
V035-04	500 g	no	yes
V035-04CER	500 g	yes	yes
V035-05	1 kg	no	yes
V035-05CER	1 kg	yes	yes
V035-06	2 kg	no	yes
V035-06CER	2 kg	yes	yes
V035-07	5 kg	no	yes
V035-07CER	5 kg	yes	yes
V035-08CER	10 kg	yes	yes



ELECTRONIC PRECISION TOP LOADING AND PLATFORM BALANCES

Designed for laboratory general purposes, most of them are fitted with under balance weighting facility for specific gravity tests, and RS232 for PC or printer connection.

Sturdy and precise, they are fitted with strain gauge cells and large backlighted display.

Immediate and automatic zeroing and tare, automatic changeover of scale sensitivity (dual range models only).

Power supply and standard - optional accessories are listed for each model of balance and described in the legend.

section V



470



Model	Capacity	Readability	Pan dimensions mm	Standard accessories	Optional accessories
V070-02	210 g	0,001 g	Dia. 110	E + F + G	H
V070-05	310 g	0,001 g	Dia. 80	E + F + G	H
V070-06	500 g	0,001 g	Dia. 110	A + F + G	H
V071-02	1500 g	0,01 g	Dia. 120	E + F + G	H
V071-10	2200 g	0,01 g	Dia. 160	E + F + G	H
V071-07	3100 g	0,01 g	Dia. 160	E + F + G	H
V071-11	4100 g	0,01 g	Dia. 160	A + F + G	H
V072-02	800/5500 g	0,01/0,1 g	Dia. 160	A + F + G	H
V072-05	10 kg	0,1 g	175x200	E + F + G	H
V072-06	12 kg	0,1 g	320x210	E + F + G	H
V072-09	4500/16000 g	0,1/1 g	320x210	A + F + G	H
V073-01	16 kg	0,1 g	320x360	E + F + G	H
V073-04	4500/32000 g	0,1/1 g	320x210	A + F + G	H
V073-06	60 kg	1 g	425x600	E	G + H
V075-02	300 g	0,005 g	Dia. 120	E + G	H
V075-03	600 g	0,01 g	Dia. 120	E + G	H
V075-04	1500 g	0,01 g	Dia. 120	E + G	H
V075-06	3000 g	0,05 g	125x145	E + G	H
V075-11	6 kg	0,1 g	225x300	E + F	G + H
V075-12	15 kg	0,2 g	225x300	E + F	G + H
V075-13	30 kg	0,5 g	225x300	E + F	G + H
V075-20	60 kg	2 g	450x600	E	
V075-21	150 kg	5 g	450x600	E	
V075-22	300 kg	10 g	450x600	E	



Legend:

STANDARD ACCESSORIES

- A = Power supply only 230V 1ph 50/60Hz
- E = Power supply; rechargeable batteries and also 230V 1ph 50/60Hz
- F = Under balance weighting facility for specific gravity tests
- G = RS 232 port

OPTIONAL ACCESSORIES:

- G = **V074-11** RS232 port with connection cable
- H = **V074-12** Printer complete with connection cable
- V074-13** Traceable calibration certificate

V085

Specific gravity frame (Bouyancy balance system)

STANDARDS: EN 12390:7 / BS 812:2, 1881:114 / UNI 6394:2

Used for specific gravity determination of concrete, aggregates etc. To be used with a suitable electronic balance fitted with an under-hook facility.

Robust steel frame made, it incorporates on its lower part a platform adjustable in height, holding a water container, and allowing the specific gravity test. The balance is not included and must be ordered separately.

Dimensions: 510x510x1150 mm Weight: 50 kg

ACCESSORIES:

V085-01 Cradle for holding concrete cube and cylinder specimens

V041 Density Basket, stainless steel, dia. 200 x 200 mm, mesh 3,35 mm



V071-07

V086 KIT

DENSITY BASKETS

Available models:

V041 DENSITY BASKET

STANDARDS: ASTM C127 / AASHTO T85 / BS 812:2

Used for specific gravity tests, stainless steel made, dia. 200x200 mm, mesh size 3,35 mm. Weight 1,5 kg



V041 ÷ A103-03

B017-01 Density Basket, stainless steel made, dia. 130x135 mm, mesh size 0,063 mm. Weight 500 g

B017-02 Density Basket, stainless steel made, dia. 130x135 mm, mesh size 0,400 mm. Weight 600 g

B017-04 Density Basket, stainless steel made, dia. 130x135 mm, dual mesh size 0,063 and 0,400 mm. Weight 700 g

A103 Density Basket, stainless steel made, dia. 120 x 160 mm, mesh size 3,35 mm

A103-01 Density Basket, stainless steel made, dia. 95 x 120mm, mesh size 1,18 mm

A103-02 Density Basket, stainless steel made, dia. 95 x 120mm, mesh size 0,600 mm

A103-03 Density Basket, stainless steel made, dia. 65 x 80mm, mesh size 0,150 mm

V042

Density tank plastic, dimensions 370x370x330 mm Weight: 3 kg



V042

V086 KIT

Specific gravity kit

Used for specific gravity determination of solid materials. Simplified and economical solution.

The kit is composed by:

V086 Support bridge frame with hook rod.

V042 Density tank, plastic, 370x370x330 mm

V041 Density basket, stainless steel, dia. 200x200 mm, mesh size 3,35 mm

To be used with a suitable electronic balance fitted with under - hook facility.

ACCESSORY:

V085-01 Cradle for holding concrete cube and cylinder specimens



V072-02

V085-01

V085

LABORATORY GLASSWARE

Measuring cylinders, available in the following models:

Capacity	transparent plastic spouted	glass with stopper	opaque plastic spouted	transparent glass spouted
10 ml.	V098	V099	V100	V101
25 ml.	V098-01	V099-01	V100-01	V101-01
50 ml.	V098-02	V099-02	V100-02	V101-02
100 ml.	V098-03	V099-03	V100-03	V101-03
250 ml.	V098-04	V099-04	V100-04	V101-04
500 ml.	V098-05	V099-05	V100-05	V101-05
1000 ml.	V098-06	V099-06	V100-06	V101-06
2000 ml.	V098-07	V099-07	V100-07	V101-07



Beakers, pyrex glass with spout. Squat form.

Model	Capacity
V104	25 ml.
V104-01	50 ml.
V104-02	100 ml.
V104-03	250 ml.
V104-04	600 ml.
V104-05	1000 ml.
V104-06	2000 ml.
V104-07	5000 ml.



Pyknometers, borosilicate glass.

STANDARD: EN 1097-6

Complete with capillary tube, stopper and funnel, used to determine the voids and bulk density of aggregates.

Model	Capacity
V103	500 ml
V103-01	1000 ml
V103-02	2000 ml

Pyknometers, pyrex glass, with ground-in-perforated stopper

Capacity	Mouth 29 mm	Wide Mouth 50 mm
250 ml	V105-03	=
500 ml	V105	V105-04
1000 ml	V105-01	V105-05
2000 ml	V105-02	V105-06
3000 ml	=	V105-08



Conical flasks, Erlenmeyer, pyrex glass wide mouth

Model	Capacity
V106	100 ml.
V106-01	250 ml.
V106-02	500 ml.
V106-03	1000 ml.
V106-04	2000 ml.

section V



473

MATEST



Filter flasks, pyrex glass, for Vacuum filtering

Model	Capacity	Perforated bung with glass tube
V107	250 ml.	V107-11
V107-01	500 ml.	V107-12
V107-02	1000 ml.	V107-13
V107-03	2000 ml.	V107-14

Specific gravity Gay-Lussac bottles

Model	Capacity
V108	25 ml.
V108-01	50 ml.
V108-02	100 ml.
V108-03	250 ml.



Volumetric flask, borosilicate glass, with plastic stopper
STANDARDS: BS-ISO 1042 - ASTM D854

Model	Capacity
V109	100 ml.
V109-01	250 ml.
V109-02	500 ml.
V109-03	1000 ml.
V109-08	2000 ml.

Reagent bottles

Model	Capacity
V108-10	250 ml
V108-11	500 ml
V108-12	1000 ml



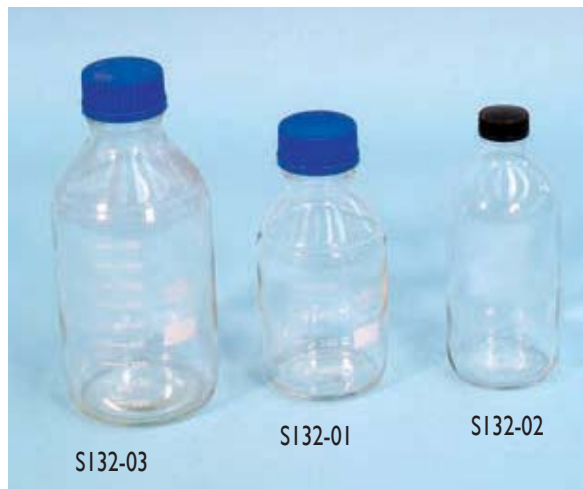
Volumetric flask, unstoppered, borosilicate glass

Model	Capacity
V109-04	100 ml.
V109-05	250 ml.
V109-06	500 ml.
V109-07	1000 ml.
V109-09	2000 ml.

Graduated impurities test bottles,

stoppered, pyrex glass

Model	Capacity	Standard
S132-01	500 ml	ASTM C40
S132-02	500 ml	UNI 8020-14
S132-03	1000 ml	ASTM C40



section V

Weighting bottles, glass, with cover

Model	Dimensions
V110	dia. 50 x h. 30 mm
V110-01	dia. 25 x h. 40 mm
V110-02	dia. 70 x h. 50 mm
V110-03	dia. 40 x h. 60 mm

Glass funnels

Model	Diameter
V119	25 mm
V119-01	50 mm
V119-02	100 mm
V119-03	150 mm



475

VIII

Hubbard specific gravity bottle

STANDARD: ASTM D70

Capacity: 24 ml.

VIII-01

Hubbard-Carmick specific gravity bottle

STANDARD: ASTM D70

Capacity: 25 ml.



Watch glass

(beaker cover)

Model	Diameter
V115	100 mm
V115-01	130 mm

Petri dish with cover, pyrex glass

Model	Diameter
V123	100 mm
V123-01	60 mm

V124 Dropping bottle, 100 ml capacity

MATEST

Graduated pipettes, MOHR type, soda glass

Model	Capacity	Sub-divisions
V142	1 ml	0,01 ml
V142-01	5 ml	0,1 ml
V142-02	10 ml	0,1 ml
V142-03	25 ml	0,1 ml
V142-04	50 ml	0,1 ml
V142-05	100 ml	0,2 ml

Graduated burettes, bended,

soda glass with stopcock

Model	Capacity	Sub-divisions
V143	25 ml	0,1 ml
V143-01	50 ml	0,1 ml
V143-02	100 ml	0,2 ml

Graduated burettes, right,

soda glass with stopcock

Model	Capacity	Sub-divisions
V143-05	10 ml	0,02 ml
V143-06	25 ml	0,1 ml
V143-07	50 ml	0,1 ml
V143-08	100 ml	0,2 ml



V147

Stirring rod, glass, 8 mm dia. x 250 mm long. Pack of 10

V147-01

Marking pencil, glass, pack of 12



Desiccators, borosilicate glass

Complete with porcelain perforated plate

Model	Diameter
A035	200 mm
A036	250 mm
A036-01	300 mm

Vacuum type desiccators,

borosilicate glass.

Complete with porcelain perforated plate

Model	Diameter
A039	200 mm
A040	250 mm
A040-01	300 mm

V300-15

Silica gel

Pack of 1000 g.

V138

Filter funnel, pyrex glass, dia. 90 mm. for particle analysis tests to BS 1377



PLASTIC PRODUCTS



section V

Decanters, polypropylene made

Model	Capacity
V102-01	500 ml.
V102-02	1000 ml.
V102-03	2000 ml.
V102-04	3000 ml.

S157-05 Beaker, graduated, plastic, 2000 ml capacity. STANDARD: UNI EN 933-9

Wash bottles, plastic

Model	Capacity
V120	100 ml.
V120-01	250 ml.
V120-02	500 ml.
V120-03	1000 ml.

Funnels, plastic

Model	Diameter
V135	100 mm
V135-01	140 mm
V135-02	210 mm

Funnels, wide mouth, plastic

Model	Diameter	
V136	max. 80 mm	min. 15 mm
V136-01	max. 120 mm	min. 30 mm
V136-02	max. 150 mm	min. 35 mm

Funnels, long stem, plastic

Model	Diameter
V137	60 mm
V137-01	80 mm
V137-02	100 mm

Bottles, plastic, wide mouth stoppered

Model	Capacity
V118	250 ml.
V118-01	500 ml.
V118-02	1000 ml.
V118-03	2000 ml.
V121	5 litri
V121-01	10 litri



V128 Bucket plastic, with handle capacity 12 litres



Boxes plastic, stacking

Model	Dimensions	Capacity
V127	380x280x195 mm	20 litri
V127-01	560x330x280 mm	50 litri
V127-02	650x380x320 mm	80 litri



Sample bags, heavy plastic, pack of 100 pcs

Model	Dimensions
V145-10	25x35 cm
V145-11	40x60 cm



477

MATEST

PORCELAIN PRODUCTS

Mortar and Pestle, porcelain
STANDARDS: BS 1377:2 / ASTM D421

Model	Diameter	Height
V112	100 mm	60 mm
V112-01	125 mm	65 mm
V112-02	150 mm	76 mm
V112-03	180 mm	92 mm
V112-04	200 mm	100 mm



section V



V113
Rubber heated pestle

478

Evaporating dishes, porcelain, with sput

Model	Diameter
V114-01	80 mm
V114-02	100 mm
V114-03	120 mm
V114-04	160 mm
V114-05	210 mm
V114-06	254 mm

V114-10
Silica evaporating dish

130 mm dia. x 30 mm high.
Capacity: 160 ml

V117 Porcelain Crucible, 30 ml. squat form

V117-01 Porcelain Lid for V117

V117-02 Porcelain Crucible, 50 ml. squat form

V117-03 Porcelain Lid for V117-02

V117-04 Platinum crucible 25 ml capacity, dia. 35 xh 38 mm, weight 19 g, thickness 0,25 mm

V117-05 Platinum crucible 25 ml capacity, dia. 35 xh 40 mm, weight 30 g, thickness 0,39 mm



V117-05

V140

Buchner funnel, porcelain, 115 mm. diameter for use with 110 mm. dia. filter paper.



MATEST

VI48

Weather station for external use.
Comprising: aneroid barometer; min/max thermometer; hair hygrometer.

VI48-01

Anemometer digital cups, portable,

for direct reading of wind speed.
Data logger: 100 points.
Cups system, highly sensible.
Functions: MIN, MAX and HOLD.
Large LCD display with Auto Power Off.
Measuring range: 0,9 to 35 m/s; resolution: 0,1 m/s; precision: +/- 2%
Measuring systems: m/s, km/h, knots, mp/h, ft/min, knots.
Feeding: 4 batteries AAA , 1,5V
Weight: 180g



VI48



VI48-01

VI67 Rain gauge, for measuring rain fall. Simple model in plastic material

VI67-01 Rain gauge, for measuring rain fall; professional model, brass made. Capacity 250 cc corresponding to 25 ml of rain with 1 mm resolution.



VI67



VI67-01

VI68

Thermohygrograph, for external use
Simultaneous recording of temperature and humidity on the same chart.
Temperature range: -35 °C +45 °C
Humidity range: 0 - 100%
Time scale: 24 hours or 7 days.
Spring operated. Supplied complete
Dimensions: 280x150x250 mm
Weight: 3 kg



VI68

VI68-01

Thermohygrograph, internal use, same to mod.VI 68 but with temperature range 0 +40 °C.
Battery operated



VI69

SPARE PARTS:

- VI68-02** Diagrams for thermohygrograph mod.VI 68. Pack of 55
- VI68-03** Diagrams for thermohygrograph mod.VI 68-01. Pack of 55
- VI68-04** Writing pen for thermohygrograph. Pack of 4

VI69 Hair hygrometer, range 0 to 100%



DIGITAL THERMOMETERS, complete with depth stainless steel probe, for temperature measurements of liquid, fluid, semisolid, granular materials, air. The probe is directly connected to the digital unit.

Model	Temp. range °C	Resolution °C	Accuracy °C	Probe dimensions dia. x length
VI50	-50 +150	0,1	± 0,3	3x105 mm
VI51	-50 +220	0,1	± 0,3	5x125 mm
VI52	-40 +550	1	± 2	3x130 mm

section V

VI53

Digital thermometer, including remote probe connected to the instrument with a cable 1 metre long.
 Temperature range: -50 +150 °C
 Resolution: 0,1 °C. Accuracy: ± 0,3 °C
 Stainless steel probe dia. 3x160 mm

VI54

Digital microprocessor thermometer

Rugged, easy to use portable instrument with K type sensor for high temperature measurements, it is equipped with a membrane keyboard and microprocessor with memory functions of: hold, min/max temperatures measured in the cycle, readings in °C or °F. Dual temperature range: -50 to +200 °C resol. 0,1 °C
 +200 to +1350 °C resol. 1 °C

Accuracy: ± 0,5% full scale

Power supply: 1x9V battery with 500 hours use

Supplied **"without"** probe to be selected and ordered separately.

ACCESSORIES:

Stainless steel probes, complete with 1 metre cable and connector

VI54-01 Penetration probe dia. 3x120 mm.
 Max temperature: 900 °C

VI54-02 Surface probe, dia. 16x260 mm.
 Max temperature: 650 °

VI54-03 Air probe, dia. 3x245 mm. Max temperature: 300 °C

VI54-04 General purpose probe, dia. 5x220 mm.
 Max temperature: 900 °C

VI54-05 K type thermocouple 5 m long

VI54-06 Coupling unit



VI53

C303N

Digital recording thermometer

two channels, for precast concrete. Technical data and accessories: see pag. 265



C303N

VI55

Infrared thermometer

To measure surface temperatures without touching the object.
 Measuring range: -50°C +750°C
 Resolution: 0.1°C up to 200°C
 Functions: Hold and autoswitch-off.
 Battery type: 9V



VI55



VI54

VI54-01...



DIAL THERMOMETERS

For temperature measurement of freshly mixed concrete, bituminous mixtures and general purpose use. Stainless steel made, the terminal part of the stem in "pointed" to get easier the penetration into the material.

Model	Range °C	Sub-divisions °C	Dial dia.	Stem length mm
V160	-40 +40	1	50 mm	250
V160-01	0 +60	1	50 mm	250
V160-02	0 +100	2	50 mm	250
V160-03	0 +250	5	50 mm	250
V160-04	0 +300	5	50 mm	250
V160-05	0 +60	1	75 mm	600
V160-06	0 +250	5	75 mm	600



V161-01
Dial thermometer
Range 0+200 °C for surface measurements.

ASTM, IP, NF thermometers, glass stem and mercury system

Model	Range °C	Graduation °C	ASTM	IP
B057-08	23 a 27	0,1		38C
B063-01	-2 a 300	1	7C	5C
B064-03	150 a 175	0,5	13C	47C
B069-11	-2 a 400	1	8C	6C
B072-01	-2 a 80	0,2	15C	60C
B072-02	30 a 200	0,5	16C	61C
B077-02	-38 a 30	0,5		42C
B082-01	18 a 28	0,2	23C	
B082-02	39 a 54	0,2	24C	
B082-03	95 a 105	0,2	25C	
B083-07	0 a 44	0,2		8C
B086-10	-6 a 400	2,0	11C	28C
B089	19 a 27	0,1	17C	
B089-01	34 a 42	0,1	18C	23C
B089-02	49 a 57	0,1	19C	
B089-03	57 a 65	0,1	20C	
B089-04	79 a 87	0,1	21C	
B092-10	-5 a 110	0,5	9C	15C
B092-11	-20 a 50	0,5	57C	
B094-10	90 a 370	2,0	10C	16C
B082-04	0 a 55	0,2	NFT66-020	



Armoured thermometers

Model	Range °C	Graduation °C
V162	0 ÷ 100	1
V162-01	0 ÷ 200	2

V163
Max./Min. Thermometer
range -30°C +50 °C



Thermometers glass stem and mercury system, for general laboratory use.

Model	Range °C	Graduation °C
V164	-5 + 50	0,5
V164-01	-10 + 100	1
V164-02	-10 + 200	1
V164-03	-10 + 300	1



VI70

Stop watch, digital, non magnetic, having also watch functions. Precision 0,1 second.

VI70-01

Stop watch, mechanical dial type, non magnetic. Precision 0,1 second.

VI71

Timing device, 0 to 60 minutes, with alarm.

VI66-01

Conductivity meter – thermometer, digital, portable. Used for site and laboratory measurements of the conductivity in soils.

Measuring scale: 0 - 3999 $\mu\text{S}/\text{cm}$ - resolution 1 $\mu\text{S}/\text{cm}$ - accuracy 1%
Temperature in $^{\circ}\text{C}$. and $^{\circ}\text{F}$., range 0 - 60 $^{\circ}\text{C}$., resolution 0,1 $^{\circ}\text{C}$.

Temperature calibration and compensation: automatic.

Use conditions: 0 to 50 $^{\circ}\text{C}$.; R.H. 100%

Feeding: battery.

Weight: 100 g

section V



482



Soil hydrometers

VI72 Range 0,995 - 1,038 g/ml, div. 0,001 - 151 H

VI72-02 Range -5 + 60 g/litre - 152 H

VI72-03 Range 0,995 - 1,030 g/ml - BS 1377 - long stem

VI72-04 Range 1,000 to 1,200 g/ml for additives

VI72-05 Range 1200 to 1300 g/ml for aggregates. EN 1367-2



VI65

Thermo-hygrometer, digital, portable, with detachable probe, it measures and displays in a short time both relative humidity and temperature.

Range: R.H. 20,0 to 95,0% - resolution 0,1% - accuracy +/- 4%

$^{\circ}\text{C}$ 0,0 to 60,0 - resolution 0,1 $^{\circ}\text{C}$ - accuracy +/- 0.5%

Battery: 1x9 V

Dimensions: 185x82x45 mm

Weight: 400 g

V173-01 BUNSEN BURNER, universal, with air control.
IT CANNOT BE SOLD IN CE MARKETS.

As an alternative:

V173-01CE

BUNSEN BURNER, universal, with air control. Complete with gas-stop valve controlled by a flame sensor and maximum thermostat with reset button.

It can be sold in CE markets, but not usable in closed spaces.

V173-02 Tripod dia. 100 x 150 mm

V173-05 Tripod dia. 120 x 220 mm

V173-06 Tripod dia. 150 x 230 mm

V173-03 Iron wire gauze, 150 mm square with ceramic centre

V173-04 Iron wire gauze, 200 mm square with ceramic centre

V174 CRUCIBLE TONGS

V175 VERNIER CALIPER, 0-160 mm x 0,02 mm

V175-01 VERNIER CALIPER, 0-205 mm x 0,02 mm

V175-02 DIGITAL VERNIER CALIPER, 0-200 mm x 0,01 mm.
Readings in mm and inch.

V175-03 DIGITAL VERNIER CALIPER, 0-153 mm x 0,01 mm

V175-04 DIGITAL VERNIER CALIPER, 0-300 mm x 0,01 mm

V176 STEEL FOLDING RULE, 2 metres long

V176-01 STEEL RULE, 300 mm long, 0,5 mm grad.

V176-02 STEEL RULE, 500 mm long, 0,5 mm grad.



V173-02

V173-01

V173-01 CE

section V



483



V174



V176-02

V175-02

V175

V176

V177 HEAT RESISTANT GLOVES

V177-01 NEOPRENE GLOVES



V177

V177-01

V178 SOFT BRUSH, for cleaning sieves etc.

V178-01 FINE WIRE BRUSH

V178-03 BOTTLE BRUSH dia. 50 mm

V179 BRISTLE, round, 35 mm. dia. soft hair

V179-01 BRISTLE, flat 62 mm. soft hair

V179-02 SIEVE BRUSH, double-ended, brass/nylon

V179-03 SIEVE BRUSH, double-ended, soft/hard nylon

V179-04 SIEVE BRUSH, fine brass

V179-05 SOFT HAIR BRUSH, dia. 3 mm - BS812

V179-06 BRISTLE, flat, 60 mm, nylon



V178

V179-02

V179-05

V179-03

V179

V179-06

V179-01

V178-01

V178-03

V179-04

MATEST

METAL CONTAINERS AND PRODUCTS:

Mixing bowls, stainless steel

Model	Diameter
V116-03	160 mm
V116	240 mm
V116-01	300 mm
V116-02	350 mm

V112-05

Mortar and Pestle, stainless steel, dia. 135 mm

Tins, with or without cover

- V122** Dia. 55 x 36 mm aluminum, with cover
- V122-01** Dia. 55 x 65 mm aluminum, with cover
- V122-02** Dia. 75 x 50 mm aluminum, with cover
- V122-03** Dia. 57 x 32 mm aluminum, without cover
- V122-04** Dia. 45 x 13 mm aluminum, without cover
- V122-05** Dia. 55 x 35 mm brass, without cover
- V122-06** Dia. 70 x 45 mm brass, without cover
- V122-07** Dia. 90 x 20 mm aluminum, with cover
- V122-08** Dia. 55 x 40 mm aluminum, with cover
- V122-11** Dia. 55 x 36 mm aluminum, without cover

Plastic containers with airtight lid

Pack of 10 pieces

Model	Capacity	Handle	Quantity
V125-12	1 litres	no	10 pcs
V125-16	5 litres	yes	10 pcs
V125-18	15 litres	yes	10 pcs

PANS: ALUMINUM, GALVANIZED AND STAINLESS STEEL MADE

Model	Dimensions mm	Material
V182	600x600x80	galvanized steel
V182-03	500x400x120	galvanized steel
V182-04	250x120x80	galvanized steel
V182-06	306x306x38	galvanized steel
V182-07	460x460x50	galvanized steel
V182-08	910x910x76	galvanized steel
V182-01	370x260x50	aluminum
V182-02	330x220x50	aluminum
V182-05	270x180x50	aluminum
V182-10	265x195x47	stainless steel
V182-11	315x240x50	stainless steel
V182-12	370x270x57	stainless steel
V182-13	420x305x60	stainless steel



SAMPLE CONTAINERS, tinned steel, airtight lid

Model	Capacity
V125	0,5 litre
V125-01	1 litre
V125-02	3 litres
V125-03	5 litres
V125-04	11 litres



SCOOPS:

Round Aluminium

Model	Dimensions mm	Capacity ml
V183	245x80	325
V184	260x90	500
V184-01	335x120	1000
V184-02	380x145	1550
V184-03	420x160	2600

Flat Aluminium

Model	Dimensions mm	Capacity ml
V184-04	210x70	165
V184-05	310x110	450

Round Stainless Steel

Model	Dimensions mm	Capacity ml
V185	100x185	500 ml
V185-01	120x200	1000 ml
V185-02	150x270	2000 ml
V185-03	125x250	5 kg. of concrete

STANDARDS: EN 12350-1 - UNI 9416
BS 1881:101



SPATULAS:

Flexible, stainless steel

Model	Blade length mm
V192	100
V192-01	150
V192-02	200
V192-03	300

Rigid, stainless steel

Model	Blade width mm
V192-04	20
V192-05	50
V192-06	70
V192-07	100

V192-08 CHATTAWAY SPATULA 120 mm long.



- V186** SAMPLING SPOON, large sized
- V186-01** LADLE, stainless steel
- V187** RECTANGULAR TROWEL 120x260 mm stainless steel
- V188** TROWEL 100x200 mm - stainless steel
- V189** TROWEL 60x140 mm - stainless steel
- V193** STEEL HAMMER, 300 g
- V194** STEEL MALLET, 1000 g
- V194-01** STEEL MALLET, 2000 g
- V195** RUBBER MALLET, head dia. 55 mm
- V196** SHOVEL, with handle
- V197** PICK MATTOCK, with handle
- V198** DENSITY CHISEL, 300 mm long x 25 mm wide
- V199** DENSITY PICK, small sized
- S124** WIRE SAW
- S125** TRIMMING KNIFE



HOT PLATES

Laboratory general utility hot plates, used to dry soil and aggregate samples, and for other general heating applications.

Power supply: 230V 1ph 50/60Hz

MODELS:

Round plates

Cast iron plate, with temperature control by a multiposition thermostat.

V200 PLATE DIAMETER 185 mm - 1500 W

V200-02 PLATE DIAMETER 220 mm - 2000 W

Rectangular and square plates

- aluminium alloy plate
- max. temperature: 350°C.
- thermostat range 0-350°C with fluid expansion probe
- insulation class: I
- two fuses to ensure electrical protection
- bipolar main luminous switch
- pilot light to signal active status of the heating element



B074

V200



section V

486

V200-01N RECTANGULAR PLATE 200x300 mm - 1500 W

V200-03N SQUARE HOT PLATE 380x380 mm - 2000 W

V200-05N RECTANGULAR PLATE 400x500 mm - 2000 W

V200-06N RECTANGULAR PLATE 400x600 mm - 2000 W



MATEST made

MATEST made

MATEST made

MATEST made

V200-05



V200-01



HOT PLATES:

(They can be used also for the determination of the softening point of bitumen, see page 134)

B074 ROUND PLATE dia. 160 mm - 1000 W

B073-01

Hot plate with magnetic stirrer

Complete with thermoregulator for temperature adjustment and magnetic stirrer with electronic adjustment from 100 to 1200 rpm.

Suitable for tests in distilled water with softening point between +30°C. to +80°C.

Power supply:

230V 1ph 50/60Hz 700W

Weight: 4 kg approx.



B073-01

B073-02

Hot plate with magnetic stirrer

Same to mod. B073-01, but with more powerful electric heating resistance, suitable "also" for tests in glycerine with softening point over +80°C. up to +150°C.

V203

Vacuum pump portable, one stage type, it produces an ultimate vacuum of 650 mm. Hg (150 mbar)
 Volume sucked: 2 Cu.m/h
 Supplied complete with water trap and electric cable
 Power supply: 230V 1ph 50 Hz
 Dimensions: 180x180x220 mm
 Weight: 5 kg.



Vacuum Pump, lubricated, paddle rotatory type.
 Supplied complete with:
 Thermal protection with automatic resetting, assembled inside the motor.
 On/Off luminous switch, cable, carrying handle, base, bottle of special oil.
 CE labelled with certificate of conformity.
 Ideal for laboratory and site use to produce vacuum
 Rotation speed: 2800 rpm
 Power supply: 230V 1ph 50/60Hz

Available models:

Models		V205	V205-01	V205-02
Free air displacement	litres/min.	75	75	150
Ultimate vacuum	mbar	0,1	0,01	0,01
Stages		1	2	2
Motor power	W	180	240	370
Dimensions	mm	300x150x240	300x150x240	350x150x275
Weight	kg	8,4	9,8	11



ACCESSORIES:

- V205-10** Vacuum regulator, complete with vacuum gauge dia. 80 mm, regulation cock, suction filter.
- V230-03** Rubber tube, lined for vacuum, 3 m long
- V205-12** Condensed water trap

V204

Vacuum pump portable, volume sucked: 5 Cu.m/h
 Ultimate vacuum 730 mm/Hg (40 mbar)
 Supplied complete with water trap and electric cable
 Power supply: 230V 1ph 50 Hz
 Dimensions: 220x260x190 mm
 Weight: 12 kg



section V



487



SPARE PART:
V205-11
 Special oil for vacuum pumps.
 Bottle of 500 cc.



V202

Aspirator pump, used with current water having approx. pressure of 0,7 kg/cm² to create a moderate vacuum.



MATEST

V201

Warm air drier, for general laboratory purposes, to dry soil and aggregate samples.

Power supply: 230V 1 ph 50 Hz 1200 W



V201

V201-01

Butane three-burner

field heater, to be used with a common butane cylinder.

Dimensions: 600x320x90 mm approx

Weight: 5 kg



V201-01

V208-10

Voltage stabilizer

It maintains the voltage stable, by adjusting and linearizing the tension variations.

Advantages: high quality of the tension, better load protection against electromagnetic disturbances.

Recommended when electronic, informatic, PC devices are used.

Power: 4 kVA

Accuracy: +/- 3%

Nominal output voltage:

18A

230V 1 ph 50Hz

Weight: 25 kg



V208-10

S351N

Laboratory air compressor

It reaches a maximum pressure of 15 bar and it must be used with the air/water interface cell.

Sucked air: 84 litre/minute.

Reservoir capacity: 3 litres.

Power supply: 230V 1 ph 50Hz 0,75HP

Dimensions: 460x300x470 mm

Weight: 22 kg



S351N

V207

Laboratory air compressor

Max. pressure: 10 bar

Air delivery: 240 litre/minute at room pressure.

Reservoir capacity: 50 litres

Recommended for continuous working pressure up to 8 bar

Power supply: 230V 1 ph 50Hz 1,5 KW

Weight: 40 kg approx.



V207

V206

Air compressor

Receiver capacity is 24 litres and it delivers 70 litres of air per minute at 6 ATM.

Air delivery: 222 litre/minute at room pressure.

Max pressure is 8 kg/sq.cm (800 kPa)

Power supply: 230V 1 ph 50 Hz

Weight: 30 kg



V206

V206-01

Air compressor

Same to mod.V206 but with:

Air reservoir: 100 litres capacity

Air delivery : 260 litre/minute

V206-02

Air compressor

Same to mod.V206, but with:

Air reservoir: 200 litres capacity

Air delivery: 320 litres/minute.



WATER STILLS

Used to produce distilled water for laboratory purposes, they are equipped with an automatic device to keep the water at a constant level and to cut off the current in case of shortage of water.
Power supply: 230V 1ph 50/60Hz



V211

Available models:

V211
Water still 4 litres/h capacity

Power: 3000W
Dimensions: 250x222x542 mm.
Weight: 13 kg

V211-01
Water still 8 litres/h capacity

Power: 6000W
Dimensions: 260x260x610 mm.
Weight: 16,5 kg

pH METERS, DIGITAL

STANDARDS: ASTM D1067 / BS 1377:3

AVAILABLE MODELS:

V215
pH meter, pocket, battery operated, with replaceable electrode
Range: 0,00 to 14,00 pH - Resolution 0,01 pH
Manual 2 points calibration.
Power supply: standard battery, 3000 hours use.
Supplied complete with: electrode, batteries, 5+5 kit of pH 4 and 7 calibration solutions
Weight: 70 g



V215

V215-01N
pH / mV / °C meter, portable, waterproof

Range pH: 0.00 to 14.00 - Resolut. 0,01 pH
mV: ± 1999 - Resolut. 0,1mV - 1mV
Temperature: 0 to 100°C

Manual 2 points calibration.
Automatic temperature compensation.
Power supply: 9V battery, 100 hours use.
Supplied complete with: electrode, temperature probe, battery, calibration solutions, case.
Weight: 180 g



V215-01N

V215-02
pH / °C meter, laboratory model

Range pH: -2,00 to 16,00 - Resolut. 0,01pH
Temperature: -9,9 to 120,0°C - Resolut. 0,1°C

Automatic 1 or 2 points calibration with 5 memorised buffers.
Automatic temperature compensation.
Rechargeable pH electrode, glass body.
Power supply: 12Vdc (230V adaptor included)
Supplied complete with: electrode, temperature probe, electrode-holder; adaptor; calibration solutions.
Dimensions: 240x182x74mm
Weight: 1100 g



V215-02

ACCESSORIES (for all pH models):

- V215-11** Buffer solution, pH 4,01
- V215-12** Buffer solution, pH 7,01
- V215-13** Buffer solution, pH 10,1
- V215-14** Electrodes maintenance solution



GENERAL EQUIPMENT

Metal stands, with rod

V219 Metal stand, base 165x140. Rod dia. 10x500 mm.
Weight: 3 kg

V219-01 Metal stand, base 200x260. Rod dia. 12x800 mm.
Weight: 5 kg

V220 Hoffman screw clamp, max opening 25 mm

V220-01 Mohr clamp

V220-02 Double sleeve metal/metal. Dia. 10÷25 mm

V220-03 Double sleeve metal/metal. Dia. 10÷20 mm

V220-04 Simple clamp. Dia. 10÷20 mm

V220-05 Simple clamp. Dia. 20÷30 mm

Laboratory trolley, used for laboratory displacement of heavy pieces like moulds, soil and concrete samples etc. Steel made, mounted on rubber wheels.

V224 Trolley platform size 735x475 mm. Weight: 9 kg

V224-01 Trolley platform size 910x610 mm. Weight: 17 kg

V225 Trolley at double shelf size 790x480 mm. Weight: 21 kg



V226

Wheel barrow, pneumatic type



V220...



V219...

V222

Tool kit, for general purpose uses and normal maintenance of laboratory equipment.

Weight: 7 kg



V222

Rubber tubing

Model	Inside dia.	Length
V230	5 mm	5 metre
V230-01	6 mm	5 metre
V230-02	8 mm	5 metre

V230-03 Special tubing for vacuum applications
8 mm inside dia. by 3 metre length.



V230...



V241

Sand bath, for the homogeneous heating or evaporation of the content of beakers flasks et.

Inside dimensions: 300x240x90 mm Volume: 7 litres

Overall dimensions: 420x400x280 mm

Power supply: 230V I ph 50/60 Hz

Weight kg. 17

V241



B052

Thermostatic water baths

See Sections: Asphalt/Bitumen pag. 100

Cement/Mortars pag. 304

Soils pag. 359



V218...

Filter paper, pack of 100 pieces

Model	Whatman n°
V218-01	1 x 110 mm dia.
V218-02	1 x 150 mm dia.
S200-14	5 x 150 mm dia.
V218-05	40 x 150 mm dia.
V218-06	44 x 150 mm dia.
V218-07	44 x 110 mm dia.
V218-08	50 x 110 mm dia.
V218-09	54 x 150 mm dia.
V218-10	540 x 150 mm dia.
V218-11	541 x 110 mm dia.
V218-12	54 x 400 mm dia.



CHEMICALS

Model	Description	Q.ty
V300-05	Distilled water	2000 ml
V300-15	Silica gel	1000 g
V300-16	Glycerine	1000 ml
S328	Vaseline oil	1000 ml
V300-19	Paraffin wax	5000 g
V300-23	Sodium hexametaphosphate	1000 g
V300-24	Sodium hydroxide	1000 g

Model	Description	Q.ty
V300-25	Sodium sulfate	1000 g
V300-28	Blue of methylene	100 g
V300-29	Kaolinite	500 g
V300-30	Ion exchange resin	500 g
V300-31	Blu Matest painting for retouches	500 g
V300-32	Matest metalling paint for retouches	500 g

NOTE: Several chemicals classified as dangerous, cannot be supplied for shipping safety problems.



V300...