

SECTION CE



CEMENT-MORTAR

This unit offers a wide range of equipment for testing cement, lime and plaster. These materials obtained after various transformations have come to play a very important role in the construction sector today.

The testing machines and equipment for these materials that are described and illustrated in this section are for analysis of physical and chemical properties; to build grout, muds and silts; and finally to carry out strength tests, all of which meet the requirements of the most well-known international standards.



CE001

PACKAGED CEMENT TUBE SAMPLER

EN 196-7 | ASTM C183 | AASHTO T127

Used to sample cement from packages.
Made of brass.

Dimensions: Ø32x1050 mm

Weight: 3 Kg

CE003

BULK CEMENT SAMPLER

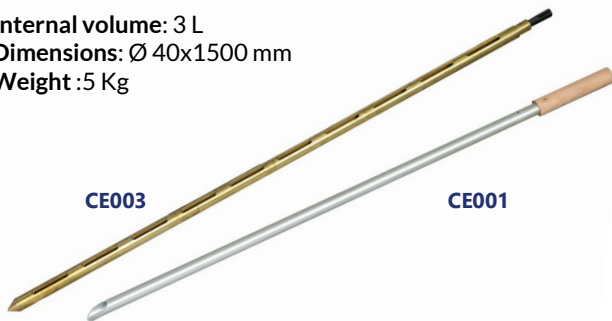
EN 196-7 | ASTM C183 | AASHTO T127

Used to sample cement in bulk storage or bulk shipments. It consists of two concentric brass tubes with slots. The inner tube rotates to close the slots and take the sample.

Internal volume: 3 L

Dimensions: Ø 40x1500 mm

Weight :5 Kg



CE007

WATER FLOWING SIEVES DEVICE

D.M. 3/6/68

Used to determine the fineness of cement. It consists of a spraying unit with feed valve and gauge; brass sieve body Ø85 mm and 95 mm high with two stainless steel mesh disks having opening 0,18 and 0,09 mm.

Dimensions: Ø85x130 mm

Weight: 2,5 Kg

CE009

FINENESS OF FLY ASH BY WET SIEVING

EN 451-2 | ASTM D430

The set, made of brass, consists of: Ø50 mm sieve with 0.045 mm stainless steel mesh Ø17,5 mm spray nozzle with 17 Ø 0,5 mm holes, Ø80 mm pressure gauge (range of 0-160 kPa, div. 5 kPa), fittings and connectors.

Weight: 3 Kg



CE011

AIR CONTENT OF MORTAR

ASTM C185 | AASHTO T137

The density method is used to determine the air content of freshly mixed mortars.

Consisting of:

- 400 ml steel container Ø76,2x88,1 mm
- Wooden piston
- Ø120 mm glass plate
- Chattaway spatula



CE013

LE CHATELIER FLASK

EN 196-6 | ASTM C188 | AASHTO T133

Used to determine the specific gravity of hydraulic cement and lime, this 250 ml capacity flask is made of glass and has a neck with graduated markings from 0 to 1 ml and from 18 to 24 ml in 0,1 ml intervals with an accuracy of 0,05 ml

Weight: 500 g

ACCESSORY

CE013-01

Chattaway spatula 120 mm



CE013

CE017

CEMENT WATER RETENTION APPARATUS

ASTM C91 | ASTM C110 | ASTM C207 | ASTM C1506

This apparatus is used to determine the water retention value of cement and lime.

Including:

- Water aspirator
- Vacuum gauge
- Three way stopcock
- Perforated brass dish
- Glass funnel
- Filter paper
- Vacuum pump
- Accessories

Dimensions:

400x300x600 mm

Weight:

8 Kg

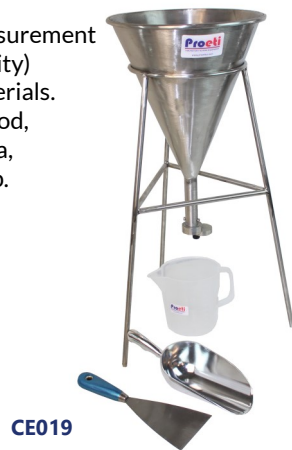


CE017

CE019 BULK DENSITY OF CEMENT

This apparatus is used for the measurement of the apparent density (bulk density) of powders and non-cohesive materials. It consists of sieve funnel with tripod, 1 litre unit weight measure, spatula, straight edge and aluminium scoop. The discharge hole of the funnel has 8 mm diameter.

Dimensions : Ø350x520 mm
Weight : 6 Kg



CE019

CE021 BLAINE AIR PERMEABILITY APPARATUS

Used to determine the fineness of Portland cement in terms of the specific surface expressed as total surface area in square centimeters per gram of cement. The apparatus is supplied with glass U-tube manometer with valve, steel stand, test cell with disk and plunger all in stainless steel, rubber aspirator bulb, 1000 filter paper disks, manometric liquid, vaseline grease for better coupling tube/cell, funnel and brush.

Dimensions: 160x180x400 mm
Weight: 2 Kg



CE021

ACCESSORIES

CE021-01
Standard reference cement 114 q to calibrate the Blaine
CE021-02
Glass thermometer -10 +50°C

CE023 DIGITAL BLAINE AIR PERMEABILITY APPARATUS

Digital Blaine air permeability apparatus with automated test cycle, electric suction pump, photoelectric cells for detection of levels, start and stop chronometer. Time is automatically shown after the test.

Supplied with stainless steel cell with grid and plunger, bottle of manometric liquid, bag of 1000 filter papers and funnel.

Power supply:
230 V | 50-60 Hz | 20 W
Dimensions:
300x250x510 mm
Weight:
8 Kg



CE023

CE031 LE CHATELIER MOULD

EN 196-3 | EN 459-2 | ISO 9597 | BS 6463 | NF P15-432

Used for determining the expansion of cement, Le Chatelier mould consists of a spring-tensioned split cylinder 30 mm inside diameter and 30 mm high, with two indicator stems attached either side of the split which measure 165 mm from their tips to the centre of the cylinder, and an O-ring.



CE033

CE031

CE033 LE CHATELIER MOULD INDIVIDUALLY TESTED

EN 196-3 | EN 459-2 | ISO 9597 | BS 6463 | NF P15-432

Similar to standard Le Chatelier mould, but this variant is fitted with larger indicator arms for a longer service life (about 10 times more than a standard Le Chatelier) within the tolerances requested by EN Specifications. The moulds are checked one by one and engraved with a serial number for an easier identification.

ACCESSORIES

CE030-01
Two glass plates 50x50 mm to cover the mould
CE030-02
Weight 100 g to be placed over the glass plate
CE030-03
Extensibility device to check the elasticity of the mould

CE035 LE CHATELIER BATH

Constructed with stainless steel inside chamber and exterior case in painted steel sheet, it can hold up to 12 Le Chatelier moulds (to be ordered separately) in the removable rack, supplied with the bath.

The bath reaches the boiling point in approx. 30 minutes.

Power supply: 230 V | 50-60 Hz | 1800 W
Dimensions: 405x265x205 mm
Weight: 7 Kg



CE035

SHRINKAGE AND EXPANSION MOULDS

CE041

Three gang prism mould to produce 40x40x160 mm samples
EN 12617-4 | ASTM C438 | NF P15-433

Weight: 8,5 Kg

CE042

Three gang prism mould to produce 40x40x160 mm samples
NF P15-434 | DIN 1164

Weight: 8 Kg

CE043

Three gang prism mould to produce 50x50x200 mm samples
EN 1367-4 | BS 812:102

Weight: 8 Kg

CE045

Two gang prism mould to produce 25x25x250 mm samples
ASTM C490

Weight: 6 Kg

CE047

Two gang prism mould to produce 75x75x254 mm samples
BS 1881, 6073

Weight: 9 Kg

CE049

Three gang prism mould to produce 70x70x280 mm samples
NF P18-427

Weight: 17 Kg



CE051

HIGH PRESSURE CEMENT AUTOCLAVE

ASTM C151 | AASHTO T107

It consists of a high pressure boiler made from special alloy steel with interior dimensions Ø154x430 mm receiving a holding rack for 10 cement specimens. The autoclave uses resistive heating elements. A separate control panel encloses a digital thermometer to visualize the boiler temperature, pressure gauge with scale 0 - 600 psi with built in pressure regulator and power switches. Supplied with specimen rack and safety valve with calibration certificate.

Power supply: 230 V | 50 Hz | 3500 W

Dimensions: 490x490x980 mm

Weight: 150 Kg

CE055

DIGITAL LENGTH COMPARATOR

EN 12617-4, 1367-4, 12808-4 | ASTM C151, C490
NF P15-433, P18-427 | BS 1881:5, 6073 | DIN 1164

Designed to measure the length variations of mortar specimens after autoclave soundness tests. The top beam is adjustable to suit the specimen's length.

Digital indicator: 12,7x0,001 mm

Dimensions: Ø180x450 mm

Weight: 10 Kg

CE057

DIAL LENGTH COMPARATOR

Same as CE111 but with 5x0,001 mm dial gauge.



CE055+CE050-03

CE057



CE045

CE041

CE049

ACCESSORIES

MG010-60

Cable to connect comparator to PC

CE050-01

Reference rod for 160 mm samples

CE050-03

Reference rod for 200 mm samples

CE050-05

Reference rod for 250 and 254 mm samples

CE050-07

Reference rod for 280 mm samples

CE061 CALORIMETER

EN 196-8 | ASTM C186

Used to determine the heat of hydration of low heat Portland and hydraulic cement. The apparatus consists of a Dewar flask contained in an insulated material and housed in a wooden box which is hinged so that the flask can be easily removed or replaced. A second hinged wooden box contains the first one for better insulation.

Supplied with a constant speed electric stirrer and glass filling funnel. Other accessories must be requested by the user.

Power supply:
230 V | 50 Hz | 150 W
Dimensions:
350x250x680 mm
Weight:
12 Kg



CE061

ACCESSORIES

- CE061-01
Propeller according to EN 196-8
- CE061-02
Propeller according to ASTM C186
- CE061-11
Digital thermometer 0,01°C with probe
- CE061-12
Digital thermometer 0,001°C with probe
- CE061-15
Paraffin wax with melting point 55°C (5000 g)

CE063 LANGAVANT CALORIMETER

EN 196-9

Designed to measure the heat of hydration of cements using a semi-adiabatic method. To perform the test a PC is required.

- The equipment consists of:
- Testing calorimeter Ø160x350 mm
 - Reference calorimeter without certificate
 - 50 mortar box
 - 20 sand bags
 - 2 temperature probes
 - Measuring system
 - Software to analyze and display data



CE063

MG702 DIGITAL MUFFLE FURNACE 1200°C

EN 196-2

Used for determining the loss on ignition of cement and building lime.

Power supply: 220 V
Volume: 7,6 L
Internal dimensions: 200x240x160 mm
External dimensions: 540x520x490 mm
Weight: 45 Kg



MG702

CE037 STEAM BATH BUILDING LIME DETERMINATION

EN 459-2

This bath is used for the determination of the soundness of building limes subjected to steam action at atmospheric pressure for 180 minutes time.

The steam bath, made of stainless steel, holds up to 12 Le Chatelier moulds, approx. 50 mm over the water level. Two heating elements of 1200W and 200W heat the water to boiling point in 30 minutes, then a timer disconnects the 1200W element and the water temperature is maintained by the second element, as specified by the standard.

The cover has a device to prevent condensed water from dropping on the specimens.

External dimensions: 455x215x350 mm
Inner dimensions: 300x150x260 mm
Weight: 9 Kg



CE037

CE091

AUTOMATIC VICAT APPARATUS

EN 196-3, 480-2, 13279-2 | ASTM C187, C191
AASHTO T131 | NF P15-414, P15-431 | DIN 1168, 1196

The automatic Vicat is used for the initial and final setting time determination of cements or mortar pastes. The unit is manufactured with anticorrosion and tropicalised components to be used in places with humidity not below 90% and 20°C controlled temperature as required by EN specifications.

The apparatus is supplied with the standard programs to make automatically, all the tests according to the international Standards. The use of the appliance is extremely simplified by the guiding menu that is available in several languages.

The mobile probe weighs 300 g (1000 g following the EN, NF) the penetration needle has Ø1,13 mm (1mm following ASTM) and its fall can be programmed in free fall or in guided fall.

The apparatus calculates, visualises and prints:

- The time elapsed from the moment of sample preparation
- The time the tests start
- The time remaining for the next penetration
- The time remaining until the end of the test
- The number of penetrations made
- The pending penetrations number

Designed to be connected to a PC through an RS232 port with the possibility to download the test data using a common program that is normally incorporated with the Windows package of the PC. In this case the data processing will have to be made by the operator.

The software allows receiving, managing, processing and completing the test dates; it will trace automatically the graph, personalise and print the test report.

ACCESSORIES

CE090-02

Needle for final setting Ø1,13 mm (BS-EN 196-3)

CE090-12

Needle for final setting Ø1,00 mm (ASTM)

CE090-07

Consistency plunger Ø10x50 mm

CE090-04

Additional weight 700 g (EN-NF)

CE090-23

Brass mould Ø 80-90x40 mm BS

CE090-33

Plastic mould Ø 65-75x40 mm DIN

CE091-21

Conical penetration needle to make gypsum tests (EN, DIN)

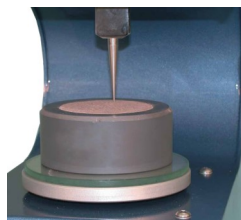
CE091-22

Probe 100 g to make test on gypsum (EN, DIN)

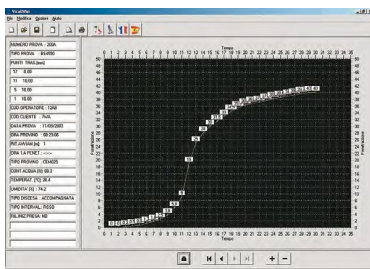
CE091-91

Software for automatic Vicat

With connection cable that allows processing, printing and managing all the data directly from the PC.



CE091-21



CE091

It is supplied with a built-in thermal printer, two hardened needles (one Ø1 mm and one Ø1,13 mm), two conical moulds for EN and ASTM and a glass plate to hold the conical mould.

Power supply: 230 V | 50-60 Hz | 50 W

Dimensions: 400x200x470 mm

Weight: 13 Kg

CE091-01

Needle cleaning device

It removes residual cement particles from needles keeping them constantly lubricated.

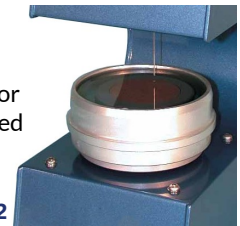


CE091-01

CE091-02

Mould tank

To test samples immersed in water for EN 196-3. The test must be performed in a room with a controlled temperature of 20°C ± 1°C.



CE091-02

CE091-03

Thermostatic system for automatic Vicat

To control a temperature of 20°C as required by EN196-3. The system accepts one or two automatic Vicats

Water capacity: 7,5L

Temperature range: 15 to 25°C

Power supply: 230 V | 50-60 Hz | 350 W

Dimensions: 415x300x420mm

Weight: 20 Kg



CE091

CE091-02

CE091-03

CE093**STANDARD VICAT APPARATUS**

EN 196-3, 480-2, 13279-2 | ASTM C191
AASHTO T131 | NF P15-414, P15-431

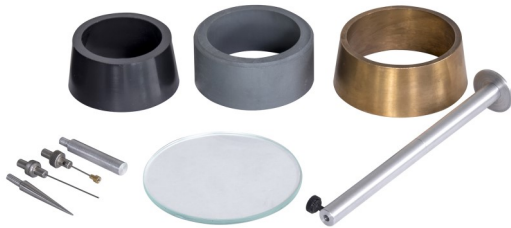
This method is used for determining the standard consistency and setting time of common cements, mortars and gypsum, and represents one of the most important parameters for quality inspection and verification.

The instrument consists of a metallic frame, graduated scale, sliding probe of 300 g, consistency plunger Ø10 mm, and glass base plate.

Dimensions:
160x200x300 mm
Weight:
5 Kg



CE093



CE090-01...CE090-33

ACCESSORIES

CE090-01
Ø1,13 mm hardened needle (EN 196-3)
CE090-02
Needle for final setting Ø1,13 mm (BS-EN 196-3)
CE090-03
Plastic mould Ø70-80x40 mm (EN-NF)
CE090-04
Additional weight 700 g (EN-NF)
CE090-11
Ø1,00 mm hardened needle (ASTM-AASHTO)
CE090-12
Needle for final setting Ø1,00 mm (ASTM)
CE090-13
Plastic mould Ø60-70x40 mm (ASTM-AASHTO)
CE091-21
Conical penetration needle for gypsum tests (EN, DIN)
CE090-22
100 g probe for gypsum tests (EN, DIN)
CE090-23
Plastic mould Ø 65-75x40 mm DIN
CE090-33
Brass mould Ø 80-90x40 mm BS

CE099**GILLMORE APPARATUS**

ASTM C91, C141, C266, C1398 | AASHTO T154

Used to determine the setting time of cement, this apparatus consists of two horizontal arms which carry two weighted steel needles precisely machined to meet the requirements of the standards. The initial needle is Ø2,12 mm and weighs 113 g and the final needle is Ø1,06 mm and weighs 453,6 g.

Weight: 2,5 Kg



CE099

CE101**AIR CONTENT METER 1 L**

EN 413-2 | EN 459-2 | EN 105-7

These meters have been designed to determine the air content of cement mortar, cement paste and lime mortar. The testers are made of cast aluminium, with the test pot and the upper part held together with an air-tight seal by means of two quick-action spring clamps. The air is compressed with a built-in hand pump. This air pump and the Test and Correction push buttons are arranged in a simple-to-use configuration on the front plate. The pressure gauge is built into the head of the meter and has a scale with an indication range of 0-50 percent volumetric air content.

Dimensions: Ø200x320 mm
Weight: 3,5 Kg

CE103**AIR CONTENT METER 0,75 L**

EN 413-2

Identical to model CE101, but with vessel having 0,75 litre capacity, conforming to EN 413-2 Specification.

CE105**ELECTRIC AIR CONTENT METER 1 L**

EN 459-2

Same as the CE101 model, but with incorporated an electric mini-compressor giving air pressure and keeping it constant all along the test.

Power supply: 230V | 50-60Hz

CE107**ELECTRIC AIR CONTENT METER 0,75 L**

EN 413-2

Identical to model CE105, but with vessel having 0,75 litre capacity, conforming to EN 413-2 Specification.

ACCESSORY

CE100-01
Filling hopper (ring) for models C101, C103, C105 and C107



CE101

CE121 HAND-OPERATED FLOW TABLE

EN459-2 | EN1015-3 | EN13279-2

Designed to determine the consistency of mortars and building lime. A specimen contained in a cone mould is placed on a metal surface which is then raised and dropped from a known height, after releasing the specimen from the mould.

Supplied with bronze flow mould, tamper and filling hopper.

Table dimensions: Ø300 mm

Drop height: 10 mm

Weight: 25 Kg



CE0121

CE123 HAND-OPERATED FLOW TABLE

ASTM C230 | BS 4551-1

Same as the CE121 model but with dimensions table are Ø254 mm and without including the filling hopper

CE125 MOTORIZED FLOW TABLE

EN459-2 | EN1015-3 | EN13279-2

Same as the CE121 model but the operation is motorized and it is supplied with an automatic digital drop counter.

Power supply: 230 V | 50 Hz | 150 W

Weight: 60 Kg

CE127 MOTORIZED FLOW TABLE

ASTM C230 | BS 4551-1

Same as the CE125 model but with dimensions table are Ø254 mm and without including the filling hopper



CE125

ACCESSORIES

CE120-01

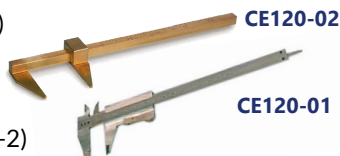
Flow Calliper (EN 459-2, EN 1015-3)

CE120-02

Brass Flow Calliper (ASTM, BS)

CE120-03

Filling Hopper to the mould (EN 459-2)



CE120-01

CE131 PLUNGER PENETRATION APPARATUS

EN 413-2, 459-2, 1015-4

Used to determine the consistency of fresh mortar, lime and masonry cement. The base is fitted with a device to locate the test cup. The height of the drop can be accurately adjusted to 100 mm.

Supplied with test cup and tamper, both made of anodized aluminium.

Dimensions: 200x200x700 mm

Weight: 8 Kg



CE131

CE133 WORKABLE LIFE AND CORRECTION TIME OF FRESH MORTAR

EN 1015-9 (method A) | EN 13294

Used for the workable life and correction time of fresh mortar and for the determination of stiffening time on products and systems for the protection and repair of concrete structures.

Supplied with container.

Dimensions:

380x300x500 mm

Weight:

12 Kg

ACCESSORY

MG220-09

Digital balance 16 Kg x 0,1 g

With tare button.



CE133

MG220-09

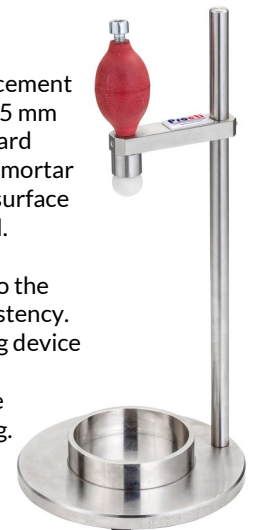
CE135 DROPPING BALL APPARATUS

BS 4551-1, 6463-4

Used to measure the consistency of cement mortars, this instrument allows a Ø25 mm acrylic ball to fall freely from a standard height of 250 mm into a specimen of mortar contained in a brass ring mould, the surface of which has been carefully prepared.

The depth of the ball penetration into the mortar indicates the specimen consistency. The instrument comprises a dropping device mounted on a stand, acrylic ball and mould Ø100x25 mm. The base of the stand is machined. Chromed finishing.

Weight: 9 Kg



CE135

CE137 MORTAR WORKABILITY APPARATUS

EN 413-2 | NF P18-452

Designed to test concrete mortar for dynamic workability and also to ensure optimum proportioning of mortar constituents (sand, water, cement, as well as cement/sand and water/cement ratios) compatible with given application. Suitable also for checking possible improvement when admixing a plastifier, or for comparing two mortar types. The unit consists of a prismatic receiver divided into two unequal volumes by a removable partition, and an electric vibrator.

The fresh mortar is poured in the large volume place, the separating partition is removed and the vibrator starts automatically. As a result of vibrations, mortar flows from the large volume to the small one, in a time which is a function of the workability of the mortar.

Power supply:
230 V | 50 Hz | 110 W
Dimensions:
400x200x200 mm
Weight:



CE137

CE139 CRACKING TEST MOULD

NF P15-434

Used to produce ring-shaped specimens designed for cracking tests on hydraulic binders. This test consists of measuring the formation time of a crack on the test specimen.

Weight: 8 Kg



CE139

AR225 DIETRICH-FRÜHLING CALCIMETER

Used for the determination of calcium carbonate (CaCO₃) in certain products such as limestone and lime marl.

It mainly consists of a glass container in which the reaction between the calcium carbonate present in the product and a solution of hydrochloric acid takes place.

The resulting gas is collected and measured by a device connected to the container. As the volume of the released gas (CO₂) is in relation to the CaCO₃ content of the material, it is possible to calculate the percentage of CaCO₃.

Dimensions: 400x200x1100 mm
Weight: 13 Kg



AR225

CE141 LIME REACTIVITY TESTING APPARATUS

EN 459-2 | NF P98-102

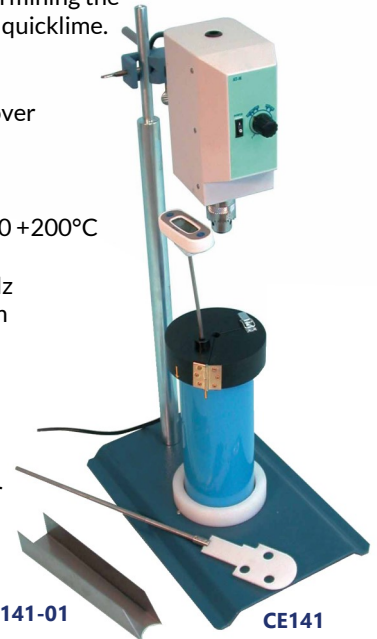
This apparatus is used for determining the reactivity on slaking of ground quicklime.

The equipment consists of.
-Dewar vessel 1000 ml with cover
-Electric stirrer 300 r.p.m.
-Stirring paddle (propeller)
-Base with stand
-Digital thermometer range -50 +200°C

Power Supply:230 V | 50-60 Hz
Dimensions:400x250x750 mm
Weight:10 Kg

ACCESSORY

CE141-01
Weighting and filling container



CE141-01

CE141

CE143 BULK DENSITY OF LIME

EN 459-2

The apparatus allows a sample to fall from a known height into a volumetric container. Consisting of a hopper, one litre cylindrical container and spring loaded trap.

Weight: 5 Kg



CE143

CE145 SLAKING VESSEL

EN 459-2

This insulated vessel is used to determine the yield of lime by leaving the lime sample to slake. Made of stainless steel, double wall with glass fibre insulation, the cylinder has inner dimensions Ø 113 by 140 mm deep. Supplied with cover.

Internal dimensions: Ø113x120 mm
Weight: 4 Kg



CE145

CE151 WATER RETENTION

EN 413-2

Used for determining the water retention of masonry cements. Made of rigid plastic inside $\text{Ø}100 \pm 1$ mm, inside height 25 ± 1 mm.

Dimensions: $\text{Ø}100 \times 25$ mm
Weight: 300 g



CE151

CE147 WATER PERMEABILITY DETERMINATION APPARATUS

EN 1015-21

This apparatus is used to determine the water permeability in onecoat rendering mortars with substrates.

It is composed of:

- Metallic cone $\text{Ø}200$ mm
- Reference mark at 100 mm
- Glass burette 1000 ml div 1 ml
- Base on the top of the cone
- Rod
- Clamps

Dimensions: 1400x300x300 mm
Weight: 10 Kg



CE147

CE157 FLUIDITY TEST OF GROUTS FOR PRE-STRESSING TENDONS

EN 445 (2007)

The grout spread test measures the fluidity of thixotropic grouts. The fluidity is measured by the diameter of the circle of grout spread on a smooth plate after a fixed period.

It consists of:

- Glass plate 305x305 mm
- Stiff plastic mould $\text{Ø}39 \times 60$ mm and 70 g



CE157

CE155 FUNNEL GROOVE

EN 13395-2

Used to determine the consistency of premixed expansive cement mortars. The device consists of a funnel fixed on one end of a metal groove.

Supplied with a graduated ruel and spirit level.

Dimensions: 960x210x400 mm
Weight: 10 Kg



CE155

CE153 WATER VAPOUR PERMEABILITY TEST CELL

EN 1015-19

Used to determine the water vapour permeability of hardened rendering and plastering mortars. Manufactured in PVC, resistant to corrosion, it has an opening of approx. $0,02 \text{ m}^2$, in which the test sample is sealed.

Dimensions: $\text{Ø}150 \times 55$ mm
Weight: 600 g

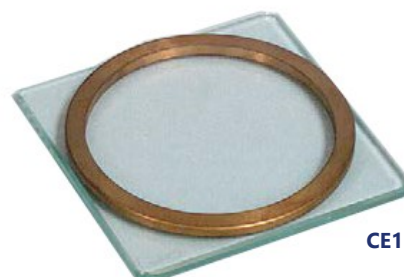


CE153

CE159 PAT TEST

EN 459-1 | BS 890 | BS 1191

Utilized for the determination of the soundness of hydrated lime, gypsum and building plasters. Consists of a brass ring mould, 100 mm diameter by 5 mm deep. The mould has an inside taper of 5° . Supplied with glass base plate. To perform one test, three moulds are required.



CE159

SU411 MARSH FUNNEL

ISO 2431

The Marsh funnel is used for routine viscosity determinations on almost every drilling rig. It is made of rugged, shatterproof plastic that is resistant to temperature change deformation, assuring volumetric accuracy.

Supplied with a 1 liter plastic measuring cup.

Dimensions:
Ø160x370 mm
Weight:
500 g



SU411

SU413 FLOW CONE APPARATUS

EN 445 | NF P18-358, P18-507

Used for determining the flow properties of mortars, grouts, muds and many other type of fluid materials.

Mortar fluidity is considered suitable when the flow time of 1000 cc of mortar is comprised between 17 to 25 seconds.

Entirely brass made, cone top dia is 155 mm, total length 290 mm, capacity 1700 cc.

Supplied with:
-4 interchangeable nozzles Ø8-9-10-11 mm
-Stand adjustable in height
-Plastic graduated cup

Weight:
10 Kg

ACCESSORIES

SU413-01
Interchangeable nozzle Ø13 mm
SU413-02
Sieve Ø150 mm mesh size 1,5 mm



SU413

SU415 SAND CONTENT OF DRILLING MUDS KIT

API 13 B-1 | API 13 B-2

A simple kit, accurate and inexpensive sieve analysis apparatus for determining the sand content of drilling muds. The kit consists of a special 200-mesh sieve 2,5" in diameter, fastened inside a collar upon which a small funnel is fitted on either end.

This is used with a 10 ml glass measuring tube, graduated to read from 0 to 20% the percentage sand by volume.

The collar and funnel are made of polyethylene and the screen is made of brass. A 500 ml wash bottle and carrying case are included.

Weight:
1500 g



SU415

SU417 BAROID MUD BALANCE

API 13 B-1 | API 13 B-2

The mud balance provides a simple method for the accurate determination of mud density, with a durable construction that makes it ideal for field use.

Principally the balance consists of a base with a fulcrum, and a graduated beam with cup, lid, weighted slider, built-in spirit level and counter-weight. The constant volume cup is affixed to one end of the graduated beam and the counter weight on the opposite end. A plastic carrying case is provided that holds the balance in its working position.

Weight:
3 Kg



SU417

SU419 FILTER PRESS FOR MUDS

API 13 B-1 | API 13 B-2

Measuring filtration behaviour and wall-coke building characteristics of fluids is essential to drilling fluid control and treatment.

This apparatus is the most effective means of determining the filtration properties of drilling muds and cement slurries. It consists essentially of a mud reservoir mounted in a frame, a pressure source, a filtering medium and a graduated cylinder for receiving and measuring filtrate.

Supplied with filter paper and CO₂ cartridges.

Dimensions: 200x230x480 mm
Weight: 10 Kg



SU419

CE181 PULL-OFF APPARATUS

EN 1542, 1348, 1015-12, 13687-2, 13963, 14496
NF P18-858 | BS 1881:207

This apparatus is mainly used to evaluate the bond strength of two layers of concrete or the adhesive strength of a surface coating (cement plaster, lime, wall plaster) to its base.

Compact, light, for use in any location, this Pull-Off tester is fitted with a load cell and high resolution large digital display unit; it is therefore suitable for measurements from low loads up to 16 kN, granting a wide working range and ideal for a large number of applications and materials. The direct tensile force is applied by rotating the hand wheel.

The three feet of the unit can be fixed in the extended position, overall dimensions $\varnothing 176$ mm with high stability, or in the compact position $\varnothing 92,5$ mm, to perform tests in narrow spaces, or for specimens close one to the other.

It is supplied with traceable calibration certificate, battery, serial port for PC connection, graphic indication of the applied load rate and seat ball assuring axial/central load application and transport case.

A conventional electric drill is required to use this test.

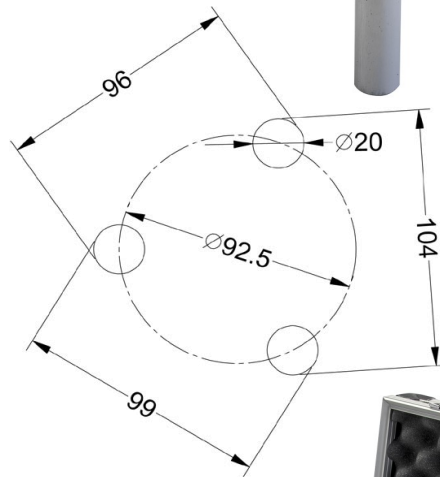
Load capacity: 16 kN
Resolution: 10 N
Working range: 0,25 to 16 kN
Accuracy and repeatability: better than $\pm 1\%$
Hand wheel rounds: 60 with mechanical round/counter
Dimensions: 410x210x270 mm
Weight: 6 Kg

ACCESSORIES

- CE180-01
Adhesion test aluminium disc $\varnothing 20$ mm (10 units)
Thick: 21 mm
- CE180-02
Adhesion test aluminium disc $\varnothing 50$ mm (10 units)
Thick: 21 mm
Standard: EN 1015-12
- CE180-03
Adhesion test aluminium disc $\varnothing 50$ mm (10 units)
Thick: 31 mm
- CE180-04
Adhesion test aluminium square 50x50 mm (10 units)
Thickness: 21 mm
Standard: EN 1348
- CE180-05
Cylindrical ring $\varnothing 50$ mm
With truncated cone shape
Standard: EN 1015-12
- CE180-91
Software to download test results to PC
Includes connection cable
- CE180-07
Drill bit with centering bit $\varnothing 20$ mm for surface preparation
- CE180-08
Drill bit with centering bit $\varnothing 50$ mm for surface preparation
- CE180-09
Acrylic adhesive glue



CE181



CE180-08

CE180-07

CE180-09

CE191**AUTOMATIC MORTAR MIXER**

EN 196-1, EN 196-3, EN 480-1, ASTM C305M

Designed for efficient mixing of cement and mortar pastes. The mixing system has up to four automatic mixing cycle sequences and allows you to select two speeds:

- 140 or 285 rpm for rotary action
- 62 or 125 rpm for planetary action

The automatic operation changes the mixing speeds and sequences, indicating by means of an acoustic signal the different phases of the mixing cycle.

The safety door stops the machine automatically in case of opening, complying with CE safety regulations.

Supplied with an automatic sand dispenser, which pours sand into the bowl for a period of 30 seconds (EN 196-1 program).

Power supply: 230 V | 50 Hz

Capacity: 4,7 L

Dimensions: 340x460x700 mm

Weight: 45 Kg



CE191

CE193**MORTAR MIXER**

EN 196-3, EN 480-1, ASTM C305M

Basically the same as the CE183 model, but it is not equipped with the automatic program, it only has two speeds to choose from. Supplied with a plastic sand dispenser and safety doors in accordance with CE Safety regulations.

Dimensions:

340x460x500 mm

Weight:

44 Kg



CE193

ACCESSORIES FOR CE191 AND CE193

CE190-01

Flat stainless steel kneading paddle.

CE190-02

Stainless steel rod whisk.

CE190-10

Dispenser for water or additives

CE190-05

Reference sand EN 196-1. 21.6 Kg bag

CE190-06

Ottawa Type Sand ASTM C109, C778. 25 Kg bag



CE190-02

CE190-01

CE190-06

CE199 COMPUTERIZED MORTAR MIXER

EN 196-1, 196-3, 413-2, 459-2, 480-1 | DIN 1164-5, 1164-7
ASTM C305M | AASHTO T162

This equipment is designed for intensive laboratory use, with different mixing program cycles conforming to international norms. Its electronic control unit can store up to 30 custom mixing cycles.

Electronic control unit with touch screen colour display, that runs like a standard PC based on Windows operating system for the management and analysis of the data, test results, graphs. The touch-screen icon interface allows an easy set up of the parameters and immediate execution of the test.

Rotational motor feeded through inverter to grant the max. precision of the rotational speed, adjustable by the operator on the display.

It includes a safety system that ensures a correct positioning of the mixing bowl to prevent accidents, and is fitted with a transparent guard to allow visual inspection during tests. Unlimited memory storage with: 2 USB ports, 1 SD card slot, RS232/485 serial port.

Supplied with stainless steel polished beater, mixing bowl and automatic sand dispensers having dimensions and geometry to grant the correct sand insertion, without residual and disaggregation between fine and coarse portions.

ACCESSORIES

CE199-01
Dispenser with hopper
To ease the manual introduction of additives into the bowl, also during the mixing phase.

CE199-02
Additional automatic dispenser
For the automatic introduction of water managed by the software.

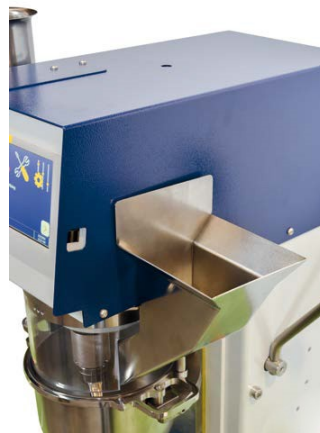
CE190-05
Reference sand size from 0,08 to 2 mm (EN 196-1)

CE190-06
Graded natural silica sand Ottawa 25 Kg
(ASTM C109, C778).



CE199

Power supply: 230 V | 50-60 Hz
Dimensions: 530x620x780 mm
Weight: 85 Kg



CE199-01



CE199-02



CE190-05



CE190-06

0	Low	OFF	OFF	ON		
30	Low	ON	OFF	ON		
60	High	OFF	OFF	ON		
90	OFF	OFF	OFF	OFF		
120	OFF	OFF	OFF	ON		
180	High	OFF	OFF	ON		

Display of kneading cycles

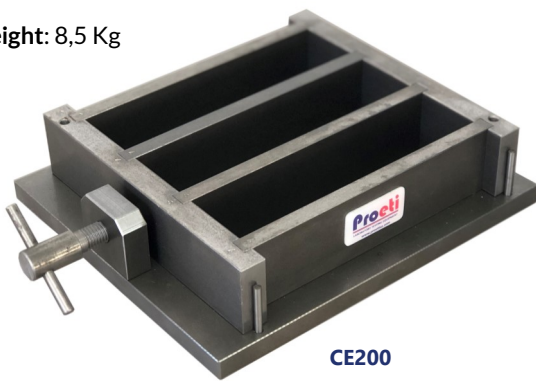
CE200
THREE GANG VERIFIED MOULD 40X40X160 MM
 EN 196-1 | EN ISO 679

Manufactured from heavy duty steel with hardness of inside walls over HV 500. This high hardness value keeps the mould within the tolerances requested by specifications for many tests, granting very long service life.

Each mould is individually verified in the dimensional tolerances, hardness, squareness, flatness and roughness with instruments periodically certified. A part-number is engraved on each mould, and a certificate of conformity is supplied along with it.

All parts are marked with an identification number for a correct assembly.

Weight: 8,5 Kg



CE200

CE201
THREE GANG MOULD 40X40X160 MM
 EN 196-1 | EN ISO 679

Same as the CE200 but with hardness of inside walls over HV 200. All surfaces are grinded and all parts are marked with an identification number for a correct assembling.

Weight: 8,5 Kg



CE201+CE201-01

ACCESSORIES

- CE201-01
Hopper for 40x40x160 mm moulds
- CE201-02
Large and small scrapers (EN 196-1)
- SU300-10
Straight edge 300 mm
- CE201-03
Glass plate 220x190mm to cover the mould



SU300-10

CE203
THREE GANG MOULD 40X40X160 MM
 NF P15-413 | ASTM C348 | DIN 1164, 1060

Same as the CE200 mold but with a hardness of the inner walls of 55 HRB.

Weight: 8,5 Kg

CE205
THREE GANG MOULD 70,7X70,7X282,8 MM
 NF P18-401

Made of steel.
Weight: 17 Kg

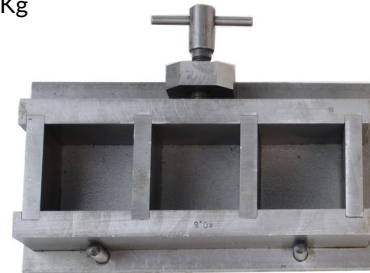


CE203

CE205

CE207
THREE GANG MOULD 50X50X50

Made of 55 HRB hardened steel.
Weight: 6 Kg



CE207

CE209
CUBIC MOULD DE 70,7 MM

BS 4550
 Made of steel with dimensions in accordance with BS 4550. Three molds are required for each test.

Weight: 3 Kg

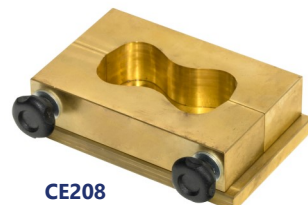


CE209

CE208
BRIQUETTE MOULD
 ASTM C190, C307 | AASHTO T132

Machined conforming to the associated norms and easy to demould. Supplied with base.

Weight: 3 Kg



CE208

CE211 JOLTING APPARATUS

EN 196-1 | EN ISO 679

This machine, used to compact the 40x40x160 mm cement prisms in the mould, has been developed to precisely satisfy the EN and ISO standards.

The apparatus, consists of a table holding the mould, seated on a rotating cam driven at 60 r.p.m. The jolting group is connected to the table by bayonet joints for quick checking of the weights. The drop height (15 mm) is adjustable to keep it correct also after intensive uses.

The apparatus is supplied with separate control panel including main switch, automatic digital drop counter, start/stop push button.

Power supply:
230V | 50Hz | 500W
Dimensions:
1000x380x420 mm
Weight:
65 Kg



ACCESORY

CE210-01

Soundproofed cabinet
Manufactured from sheet steel, internally lined with sound-proofing material for noise reduction, to be used with the Jolting apparatus.

Dimensions: 1300x510x700 mm
Weight: 25 Kg



CE215 VIBRATING MACHINE FOR MOULDS 70,7 MM

BS 4550

This apparatus is for the preparation and compaction of 70,7 mm mortar cube specimens. The mould table is mounted on four springs attached to an eccentric shaft which allows each sample to be vibrated at 12,000 cycles per minute in accordance with the specifications. The cube mould is not included and has to be ordered separately.

Power supply:
230 V | 50 Hz | 250W
Weight:
100 Kg



CE221 DIGITAL WATER BATH 40 L

EN 196-1, 196-8 | ISO 679 | ASTM C109, C511

Double walled and made of stainless steel, with glass wool insulation and an electric stirrer for water circulation. The bath ensures an uniform and constant temperature. It is equipped with a digital thermostat and a dual safety thermostat with higher thermal threshold ensuring safe working conditions.

It can contain up to 60 40x40x160 mm specimens, held separated from the bottom by a rack.

Power supply: 230 V | 50-60 Hz | 1200W
Temperature range: from ambient to 60°C
Internal dimensions: 510x350x230 mm
Overall dimensions: 680x420x420 mm
Weight: 28 Kg



CE223 DIGITAL WATER BATH 200 L

EN 196-1, 196-8 | ISO 679 | ASTM C109, C511

Same as model CE221 but with 200 L capacity.

Power supply: 230 V | 50-60 Hz | 4000 W
Internal dimensions: 900x600x360 mm
Overall dimensions: 1050x680x430 mm
Weight: 55 Kg

CE231 CURING CABINET

EN 196-1 | ASTM C109, C190, C191

Both external and internal walls are stainless steel made, and insulated by a 50 mm thick glass wool. The cabinet has an inner inspection glass door. A dual safety/thermostat with higher thermic threshold ensures safe working conditions.

Power supply: 230 V | 50-60 Hz | 1000 W
Temperature range: from ambient to 70°C
Humidity range: 90% to saturation
Internal dimensions: 620x440x400 mm
Overall dimensions: 900x700x800 mm
Weight: 60 Kg



CE233**LARGE CAPACITY CURING CABINET**

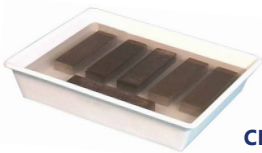
EN 196-1, 196-08 | ISO 679 | ASTM C109, C511

For curing large quantities of mortar, cement and concrete specimens, at controlled humidity and temperature. Aluminium and polycarbonate made, it includes precision digital thermostat and four robust shelves.

The humidity from 90% to saturation is maintained through water nebulizers activated by compressed air, and the temperature by an immersion heater and refrigerator unit. The cabinet requires a compressed air source.

Power supply: 230 V | 50-60 Hz | 2000 W**Temperature range:** from ambient to 30°C**Internal dimensions:** 1090x470x1200 mm**Overall dimensions:** 1350x570x1600 mm**Weight:** 100 Kg

CE233



CE233-03

ACCESSORIES**MG755**

Air compressor 90 litres
Air displacement 255 litres/min.
Recommended for standard use.

MG759

Air compressor 270 litres
Air displacement 486 litres/min.
Recommended for intensive or continuous use.

CE233-02

Tubing and accessories to connect the air compressor

CE233-03

Polythene pan 240x300x70 mm

It accepts up to 6 prisms 40x40x160 mm.

CE233-01**WATER REFRIGERATOR SYSTEM**

It cools the water from room temperature down to +10°C with supply capacity of 2 litre/minute. Made of stainless steel, with motor pump, digital thermostat.

It is connected to water baths and tanks where a lower than room temperature is required. Supplied with tubing and accessories for bath connection.

Power supply:

230 V | 50 Hz | 750 W

Dimensions:

550x500x880 mm

Weight:

55 Kg



CE233-01

CE235**CURING BENCH WITH COOLING HEATING SYSTEM**

Suitable for curing large quantities of cement, mortar and concrete specimens at controlled temperature and humidity.

Fully made of stainless steel with insulation panels. 4 doors with 530x310 mm racks, adjustable in height. Thermostatic group including refrigerating unit, compressor, condenser, evaporator, control and safety devices are installed laterally for easy inspections.

The top can be used as working bench.

Power supply: 230 V | 50-60 Hz**Capacity:** 540 litres**Temperature range:** +18°C a +30°C**Humidity range:** 95% to saturation**Dimensions:** 2250x1010x850 mm**Weight:** 200 Kg

CE235

COMPRESSION TESTING MACHINES FOR MORTARS

EN 196-1, 1015-11 | ISO 679 | ASTM C109, C349, C1194
DIN 1164 | BS 4550 | GOST 26798-1

Designed to perform compression tests on specimens of cement, mortar, bricks, rocks and refractory materials by using the suitable compression devices and accessories.

Equipped with an electrical microswitch to stop the piston after specimen breakage, in order to avoid damages to the compression device.

Our range of compression testing machines offers different configurations, from semi-automatic to automatic and computerized, depending on the control and measurement systems that adapt best to the user's requirements.



CE251



CE257

These machines are formed by a two-column frame with a single measurement range, for compression tests with loads up to 250 or 500 kN.

Two options for the digital control unit:
-2 channels and interface with 5 multi-function pushbuttons
-8 channels and touch-screen user-friendly interface

They are supplied with the lower compression platen and coupling to easily attach the compression device.

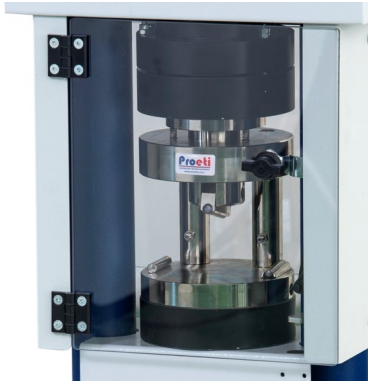
Power supply: 230 V | 50 Hz | 750 W
Vertical distance between platens: 185 mm
Horizontal distance between columns: 175 mm
Platens diameter: Ø153 mm
Ram travel: 45 mm
Weight: 300 - 330 Kg

CODE	CAPACITY	CONTROL SYSTEM	HIDRAULIC PUMP
CE251	250 kN	2 channels	Motorized
CE253	250 kN	8 channels	Motorized
CE255	250 kN	2 channels	Servo controlled
CE257	250 kN	8 channels	Servo controlled
CE261	500 kN	2 channels	Motorized
CE263	500 kN	8 channels	Motorized
CE265	500 kN	2 channels	Servo controlled
CE267	500 kN	8 channels	Servo controlled

ACCESSORIES FOR COMPRESSION FRAMES ON CEMENT AND MORTAR:

CE250-01
Safety guards in compliance with CE Directive Polycarbonate made with hinges and lock.

MG010-03
Safety stop door switch



CE250-01

CE250-02
Bench to hold the compression frame



CE250-02

CE300-01
Distance piece 25 mm
CE300-02
Distance piece 50 mm

CE301
Compression device for 40x40x160 mm prisms
EN 196 | ISO 679 | ASTM C349

CE303
Compression device for 40x40x160 mm prisms
DIN 1164

CE305
Compression device for 50 mm cubes
ASTM C109, C1194



CE301

MG010-02
Two way hydraulic valve
To activate a second frame.



MG010-02

MG010-01
Console for housing the pump unit
It is lined with sound-proofing material for noise reduction.

MG031
Custom computer
The supply of the PC includes monitor 22", keyboard, mouse, connection cables and the installation of the purchased software.

MG035
Integrated thermal printer

MG035-01
Thermo paper roll for printer

MG030-01
Software for remote control from PC



MG010-01



MG031



MG035



Compression test on mortars

COMPRESSION/FLEXURAL TESTING MACHINES WITH DUAL MEASURING RANGE ON MORTARS

EN 196-1, 13286-41, 933-5, 1015-11 | ISO 679 | BS 4550
ASTM C109, C348, C349, C1194 | DIN 1164 | GOST 26798-1

Designed to perform compression and flexural tests on specimens of cement, mortar, bricks, rocks and refractory materials by using the suitable compression devices and accessories.

Equipped with an electrical microswitch to stop the piston after specimen breakage, in order to avoid damages to the compression device.

Our range of compression testing machines offers different configurations, from semi-automatic to automatic and computerized, depending on the control and measurement systems that adapt best to the user's requirements.



CE281



CE287

These machines are formed by a two-column frame with two measuring ranges in the same testing chamber. For compression tests 250kN or 500kN capacity load. For flexural tests 15kN capacity load.

Two options for the digital control unit:
-2 channels and interface with 5 multi-function pushbuttons
-8 channels and touch-screen user-friendly interface

They are supplied with the lower compression platen and coupling to easily attach the compression and flexural devices.

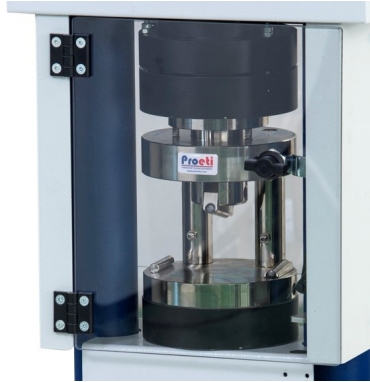
Power supply: 230 V | 50 Hz | 750 W
Vertical distance between platens: 185 mm
Horizontal distance between columns: 175 mm
Platens diameter: Ø153 mm
Ram travel: 45 mm
Weight: 300 - 340 Kg

CODE	CAPACITY	CONTROL SYSTEM	HIDRAULIC PUMP
CE271	250-15 kN	2 channels	Motorized
CE273	250-15 kN	8 channels	Motorized
CE275	250-15 kN	2 channels	Servo controlled
CE277	250-15 kN	8 channels	Servo controlled
CE281	500-15 kN	2 channels	Motorized
CE283	500-15 kN	8 channels	Motorized
CE285	500-15 kN	2 channels	Servo controlled
CE287	500-15 kN	8 channels	Servo controlled

ACCESSORIES FOR COMPRESSION/FLEXURAL FRAMES ON CEMENT AND MORTAR:

CE250-01

Safety guards
Safety guards in compliance with CE Directive
Polycarbonate made with hinges and lock.



CE250-01

MG010-03

Door stop safety switch

CE250-02

Bench to hold the compression/flexural frame



CE250-02

CE300-01

Distance piece 25 mm

CE300-02

Distance piece 50 mm

CE301

Compression device for 40x40x160 mm mortar prisms
EN 196 | ISO 679 | ASTM C349

CE311

Flexure device for 40x40x160 mm mortar prisms
EN 196-1,1015-11 | DIN 1164 | ISO 679



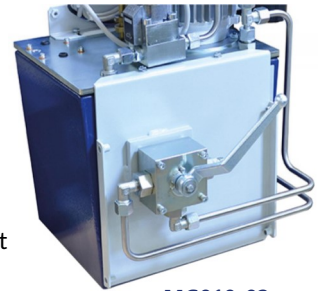
CE311



CE301

MG010-02

Two way hydraulic valve
To activate a second frame.



MG010-02

MG010-01

Console for housing the pump unit
It is lined with sound-proofing material for noise reduction.

MG031

Custom computer

The supply of the PC includes monitor 22",
keyboard, mouse, connection cables and the
installation of the purchased software.

MG035

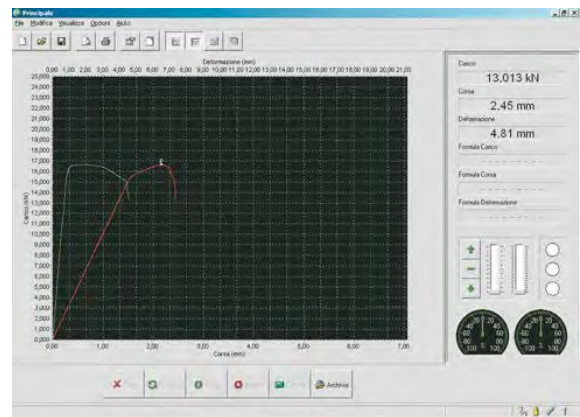
Integrated thermal printer

MG035-01

Thermo paper roll for printer



MG035



Compression tests on mortars



MG030-01 Software remote control from PC

COMPRESSION AND FLEXURAL TESTING MACHINE WITH DUAL CHAMBER AND TWO RANGES

EN 196-1, 13286-41, 933-5, 1015-11 | ISO 679 | BS 4550
ASTM C109, C348, C349, C1194 | DIN 1164 | GOST 26798-1

These high performance testing machines, with advanced features and high quality components, are equipped with two testing chambers with two independent measuring ranges.

These machines are suitable for:

- Flexural tests on 40x40x160 mm prisms with range 0-15 kN
- Compression tests on 40x40x160 prisms
- Compression tests on 40, 50, 70 and 100 mm cubes
- Cores with a maximum height of 180 mm

The applied load is measured by two strain gage load cells (15kN and 300 kN) at high accuracy. This solution eliminates the weights of the piston and lower compression platen, packing set frictions etc., granting very high accuracy (max. error within $\pm 0,5\%$).

The load chamber 0-15 kN performs very accurate tests on specimens having low strength (both in compression and in flexure).

Equipped with an electric microswitch to stop the piston after the specimen breakage, in order to avoid damages to the compression or flexure device.

They are supplied with the lower platen and coupling to easily attach the compression and flexural devices.

Power supply: 230 V | 50 Hz | 750 W
Daylight between platens: 189 mm
Daylight between columns: 210 mm
Platens diameter: Ø165 mm
Piston stroke: 35 mm
Dimensions: 1300x400x1500 mm
Weight: 400 Kg



CE293

CODE	CAPACITY	CONTROL SYSTEM	HIDRAULIC PUMP
CE291	300/15 kN	8 channels	Motorized
CE293	300/15 kN	8 channels	Servocontrolled

ACCESSORIES

MG010-03
Door stop safety switch

MG035
Integrated thermal printer

MG035-01
Thermo paper roll for printer



MG035

MG031
Custom computer
The supply of the PC includes monitor 22", keyboard, mouse, connection cables and the installation of the purchased software.



MG031

MG030-01
Software for remote control from PC

COMPRESSION AND FLEXURAL DEVICES FOR TESTS ON CEMENT AND MORTAR:

CE301 COMPRESSION DEVICE FOR PORTIONS OF 40X40X160 MM PRISM BROKEN IN FLEXURE

EN 196-1 | ASTM C349 | ISO 679

The compression platens have hardness 60 HRC and upper platen is seat ball assembled.
The centering plug is distant 10 mm from the compression platen, as requested by the EN 196-1 Specification.
Cadmium plated for rust protection.

Dimensions:
153x153x185 mm
Weight:
12 Kg



CE301

CE303 COMPRESSION DEVICE FOR PORTIONS OF 40X40X160 MM PRISM BROKEN IN FLEXURE

DIN 1164

Identical to the CE301 device, but with 40x62,5 mm size compression plates, as required by DIN Standards.



CE303

CE305 COMPRESSION DEVICE FOR 50 MM CUBIC SAMPLES

ASTM C109, C1194

Platens diameter: 72 mm and upper platen is seat ball assembled.
This device can be used also to test cores max. 50 mm height.

Dimensions:
153x153x185 mm
Weight:
12 Kg



CE305

CE311 FLEXURE DEVICE FOR 40X40X160 MM PRISMS

EN 196-1 | EN 1015-11 | DIN 1164 | ISO 679

Upper bearer is seat ball assembled. The distance between lower bearers is 100 mm and one of them has a spherical seat. Cadmium plated for rust protection.

Dimensions:
160x153x185 mm
Weight:
11 Kg



CE311

CE307 COMPRESSION DEVICE FOR 70 MM CUBES

BS 4550

It can be used with witnesses of height up to 70 mm.

Dimensions:
150x130x185 mm
Weight:
9 Kg



CE307

CE315 FLEXURE DEVICE FOR 40X40X160 MM PRISMS

ASTM C348

Identical to model CE311 but with a distance of 119 mm between the lower rollers in accordance with the ASTM Standard.

Weight:
11 Kg

SU351 DIGITAL MULTIPURPOSE TESTER 50 KN

This frame represents the ideal solution for major laboratories performing tests requiring displacement control. The multipurpose tester features a rigid two-column structure with an upper cross beam which can be set at various heights and an automatic load or displacement/deformation control, for testing:

The versatility of the machine allows to carry out the tests:

CEMENT:

Flexural test on mortar prisms 40x40x160 mm

Compression test on mortar prisms 40x40x160 mm

ASPHALT:

Marshall

Splitting tensile

Direct shear Leutner

SOIL:

CBR (California Bearing Ratio)

Unconfined compression

Quick triaxial

CONCRETE:

Flexural on beams and tiles

CLAY BLOCKS:

Punching

ROCKS AND STONES:

Uniaxial splitting tensile

The load is applied by a mechanical jack that is driven by a motor brushless with closed loop through optic encoder and controlled by a microprocessor. Limit switches are installed at the end of the stroke to prevent accidental damage.

The electronic control unit with touch-screen colour display, runs like a standard PC based on Windows. The machine has unlimited memory storage with: 2 USB ports, 1 SD card slot.

Supplied without accessories and software to perform the specific tests which must be ordered separately.



SU351

Power supply: 230 V | 50-60 Hz | 150 W
Adjustable testing speed: from 0,01 to 51 mm/min
Load gradient: from 1 to 15000 N/seg
Maximum ram travel: 100 mm
Daylight between columns: 380 mm
Maximum vertical daylight: 850 mm
Dimensions: 500x450x1450 mm
Weight: 130 Kg

ACCESORIES MULTIPURPOSE 50 KN FOR CEMENTS:

COMPRESSION TEST

EN 196-1 | ISO 679 | ASTM C109 | ASTM C349

NF P15-451 | BS 3892 | DIN 1164

MG020-06

Load cell 50 kN

SU350-01

Loading piston

CE301

Compression device

MG030-21

Software for compression tests on mortars



CE301

FLEXURAL TEST

EN 196-1 | ISO 679 | ASTM C348

NF P15-451 | DIN 1164

MG020-03

Load cell 10 kN

SU350-01

Loading piston

CE311

Flexural device

MG030-21

Software for flexural test on mortars



CE311

SU353 MULTIPURPOSE 50 KN - TENSILE 25 KN TESTER

Same as the 50 kN SU351 but modified and upgraded to perform also tensile tests with 25 kN of maximum capacity.

CEMENT:

Tensile in mortar briquettes

METAL, PLASTIC, WIRES, ROPES, TEXTILES, PAPERS

Tensile test 50 kN max capacity load

ACCESORIES MULTIPURPOSE 50-25 KN FOR CEMENTS:

TENSILE TEST ON MORTAR

ASTM C190 | ASTM C307 | AASHTO T132

MG020-03

Load cell 10 kN

SU350-04

Tensile jaws "8" shaped for mortar briquette

MG030-24

Software for tensile test

CE208

Briquette mould



SU350-04



CE208

SU355 DIGITAL MULTIPURPOSE TESTER 200 KN

By using suitable devices, our multipurpose tester performs compression, flexural, splitting tensile and direct tensile tests with automatic load or displacement/deformation control, up to 200 kN for compression/flexural and 50 kN for tensile tests.

The versatility of the machine allows to carry out the tests:

CEMENT:

Flexural test on mortar prisms 40x40x160 mm

Compression test on mortar prisms 40x40x160 mm

Tensile on mortar briquettes

ASPHALT:

Marshall

Splitting tensile

Direct shear Leutner

Duriez

CONCRETE:

Flexural on beams and tiles

CLAY BLOCKS:

Punching

SOIL:

CBR (California Bearing Ratio)

Unconfined compression

Quick triaxial

ROCKS AND STONES:

Uniaxial splitting tensile

METAL, PLASTIC, WIRES, ROPES, TEXTILES, PAPERS,...

Tensile test 50 kN max capacity load

The machine consists essentially of a robust two-column frame with an upper crosshead which can be adjusted in height and a lower mobile crosshead moved by an electromechanical system with a single recirculating ball screw powered by a brushless servomotor which assures smooth application of load at constant speed.

The load is applied by a mechanical jack that is driven by a brushless motor with closed loop through optic encoder and controlled by a microprocessor. Limit switches are installed at the end of the stroke to prevent accidental damage.

ACCESORIES MULTIPURPOSE 200 KN ON MORTARS:

COMPRESSION TEST

EN 196-1 | ISO 679 | ASTM C109

ASTM C349 | NF P15-451 | BS 3892 | DIN 1164

CE301

Compression device

MG030-21

Software for compression tests on mortars

FLEXURAL TEST

EN 196-1 | ASTM C348 | NF P15-451

DIN 1164 | EN ISO 679

MG020-03

Load cell 10kN

MG020-13

Load cell connector

CE311

Flexural device

MG030-21

Software for flexural test on mortars



CE311



CE208



SU350-04

TENSILE TEST ON MORTAR

ASTM C190 | ASTM C307 | AASHTO T132

MG020-03

Load cell 10kN

MG020-13

Load cell connector

Su350-04

Tensile jaws "8" shaped for mortar briquette

MG030-24

Software for tensile test

CE208

Briquette mold



SU355

The electronic control unit with touch-screen colour display, runs like a standard PC based on Windows. The machine has unlimited memory storage with: 2 USB ports, 1 SD card slot.

Supplied with an electric load cell 200 kN and lower compression platens. Accessories and software for specific tests are not included which must be ordered separately.

Power supply: 230 V | 50-60 Hz | 850 W

Maximum vertical distance: 900 mm

Daylight between columns: 650 mm

Adjustable testing speed: from 0,01 to 100 mm/min

Load gradient: from 1 N/s to 5 kN/s

Dimensions: 950x560x2400 mm

Weight: 820 Kg