



GEOTECHNICAL

TESTING EQUIPMENT

THE BEST IN TEST

CEMENT



CATALOG 2018

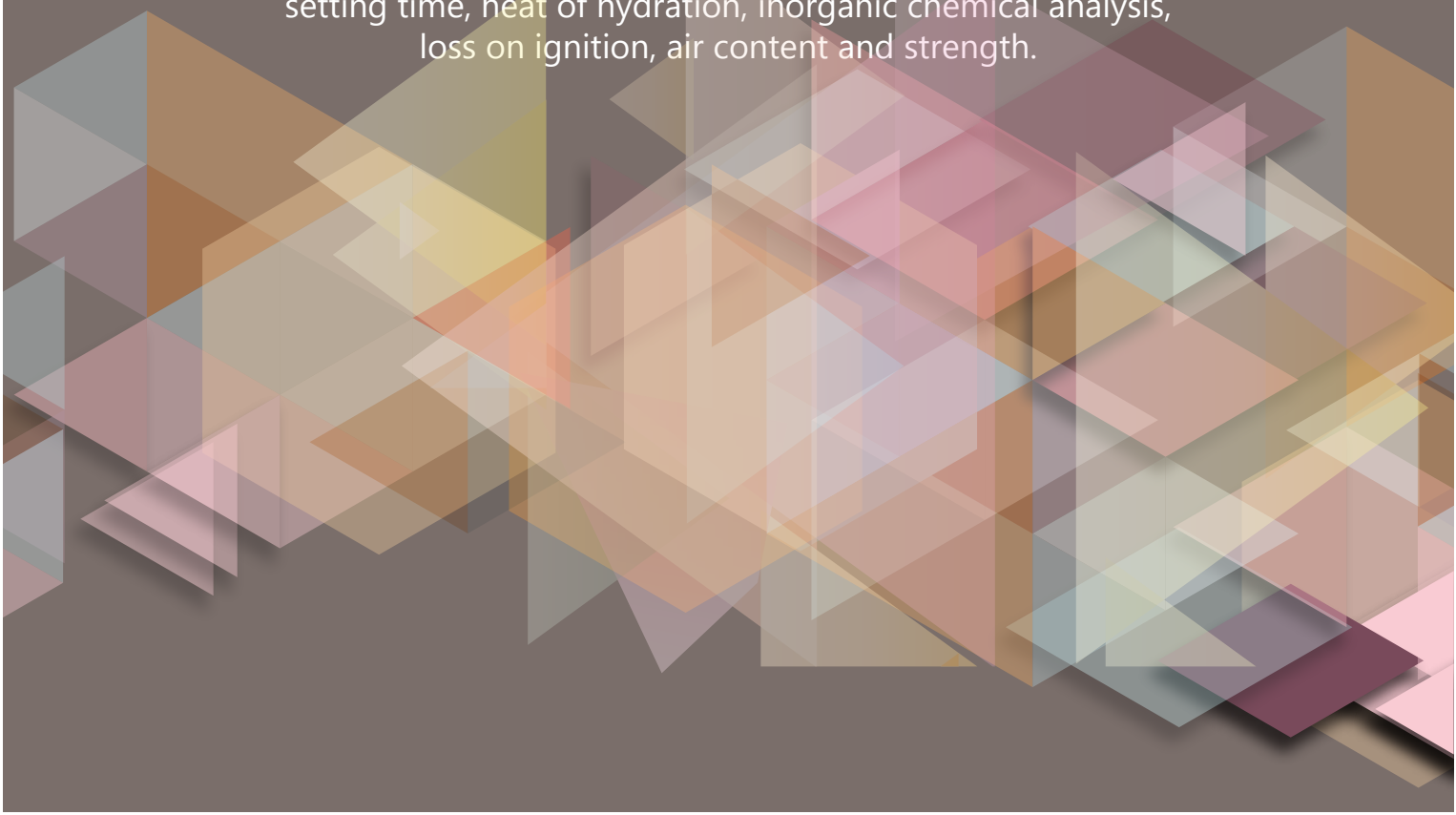
Cement

Cement is one of the ancient raw materials used in construction. It is uncertain where it was first discovered that a combination of hydrated non-hydraulic lime and a pozzolan produces a hydraulic mixture (e.g., Portland cement) harden because of hydration chemical reactions that occur independently of the mixture's water content; they can harden even underwater or when constantly exposed to wet weather.

Cement is essentially a binder that binds other materials together, Modern cements are manufactured by a chemical process.

Raw materials are crushed, ground and blended before being heated in a rotary kiln until they combine chemically. The clinker from the kiln is then ground with gypsum to form Portland cement.

Different types of cement with different strengths and characteristics can be produced depending on the composition and quality of clinker, fly ash, silica fume, retarders, water proofers, colouring agents and other additives used in the mix. It is essential to test the physical and chemical parameters of each cement batch produced and to identify the unique characteristics of each composition. Such parameters include specific surface and gravity of cement articles, consistency, soundness, setting time, heat of hydration, inorganic chemical analysis, loss on ignition, air content and strength.



Fineness Blaine Air Apparatus

DESCRIPTION:

The Blaine Air Apparatus is used to determine the particle size of Portland cement, limes and similar powders expressed in terms of their specific surface.

It comprises of a stainless steel cell, perforated disc and plunger. A U-tube glass manometer is fitted to the steel stand. Manometer Liquid, 250 ml. The set is complete with rubber aspirator and a pack of 100 pcs filter paper.



TECHNICAL

SPECIFICATIONS:

Dimensions	220x170x470 mm
Weight (approx.)	8 kg

Automatic Blaine Apparatus

DESCRIPTION:

The Automatic Blaine Apparatus provides more accuracy and precision than provided by the manual Blaine Apparatus. Calibration of this unit is done using a cement sample reference, such as NIST 114q.



TECHNICAL

SPECIFICATIONS:

Unit runs at	230 V/50 Hz
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BS 1377-2; EN 196-6; 459-2; 13286-44;
BS 4359-2; ASTM C204

ORDERING:

CM 0101
Fineness Blaine Air Apparatus complete set

ACCESSORIES:

CM 0102
Manometer Liquid, 250 ml

CM 0103
Test Stand

CM 0104
Rubber Aspirator

CM 0105
Cell with Perforated Disc and Plunger

CM 0106
Plastic Funnel

CM 0107
Filter Paper, 100 pcs.

CM 0108
U Manometer Tube

EN 196; DIN 1164; BS 4550; ASTM C 204

To obtain the most accurate results, the test should be performed in a temperature controlled environment. Unit includes: the unit with an electric pump and time registration; filter papers (12.8mm, 1000pk; fill oil (50ml); Plug; thermometer; brush and funnel.

ORDERING:

CM 0109
Blaine apparatus with PC control

CM 0109-1
Blaine apparatus semi automatic

Le Chatelier Mold

BS 6463; EN 196-3, 459-2, EN ISO 9597

DESCRIPTION:

Used for determining the expansion of cement. The mold consists of a spring tensioned split cylinder 30 mm internal diameter, 30 mm high with two indicator stems which measure 165 mm from the points of the center line of the cylinder and O ring.

Two or three molds are required for each test. To perform the test, a water bath is also required.

The kit includes all accessories to perform the test to verify the conformity of the molds



TECHNICAL SPECIFICATIONS:

	Weight (approx.)
Le chatelier mold	0.9 kg

ORDERING:

CM 0110
Le Chatelier Mold

CM 0111
Le Chatelier Mold.
Pack of 6 units

CM 0112
Le Chatelier soundness
kit

ACCESSORIES:

CM 0113
Glass plates, 50 mm
sq.

CM 0114
100 g weights

Le Chatelier Water Bath

EN 196-3, 450-1, 459-2; EN ISO 9597

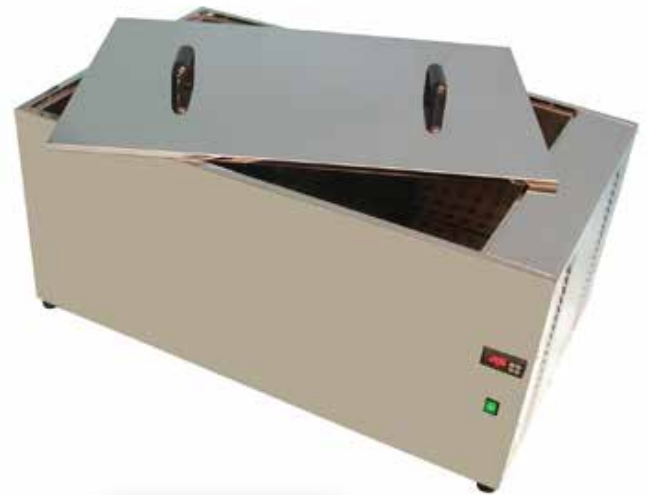
DESCRIPTION:

Le Chatelier Water Bath is used with Le Chatelier molds for the determination of the soundness of cement paste fly ash for concrete and lime.

The internal chamber and the insulated exterior case of the bath are manufactured from stainless steel. The Bath is capable of reaching boiling point in 30 minutes by using two heater units. There is a timer on Chatelier Water Bath which is used to set the time for reaching the boiling point.

After that time the temperature of water is regulated by using one heater unit to conserve energy.

Supplied complete with a removable rack to hold up to 10 molds. A cover is also supplied as standard.



MAIN FEATURES:

- Accurate temperature control
- Made from high quality stainless

ORDERING:

CM 0115
Le Chatelier Water Bath

ACCESSORIES

CM 0116
Removable rack

CM 0117
Stainless steel cover

TECHNICAL SPECIFICATIONS:

Dimensions	210x470x290 mm
Weight (approx.)	8 kg
Power	1250 W

Le Chatelier Flask, Specific Gravity

DESCRIPTION:

The Chatelier Flask is used to determine the specific gravity of hydraulic cement, dust, sand and other fine materials. The body holds approximately 250ml. The oval bulb in the neck holds 17ml.

The Volume below the bulb is graduated from 0 to 1.0ml in 0.1ml subdivisions, with an additional 0.1 subdivision below the 0 and above the 1.0ml mark.

The neck is graduated from 18 to 24ml in 0.1ml subdivisions above the bulb (white graduations).



EN 196-6, 450-1, 15617-1; ASTM C110, C128, C188; C989; AASHTO T133

ORDERING:

CM 0118
Specific Gravity Le Chatelier Flask

TECHNICAL SPECIFICATIONS:

Dimensions	100x100x300 mm
Weight (approx.)	0.1 kg

Cement Flow Table

DESCRIPTION:

There are two models of the Cement Flow Table, Both are used for determining the consistency of mortar, lime and cement specimens.

The manual hand operated model is fitted with a hand wheel. While the motor operated model is driven by a motor speed reducer through a mechanical coupling at the rate of 1 revolution per second. The number of drops is prest on a counter and the machine stops automatically at the end of the cycle.

Two models are available EN or ASTM model each is manufactured according to standard specification.



ASTM C230; EN 459-2, 1015-3, 1015-9, 13395-1; BS 4551-1, 3892-1

MAIN FEATURES:

- The models are manufactured from high quality brass

ORDERING:

CM 0118
Cement Flow Table ASTM

CM 0119
Motorized Cement Flow Table ASTM, 220-240 V 50 Hz

CM 0118-1
Cement Flow Table EN

CM 0119-1
Motorized Cement Flow Table EN 220-240 V 50 Hz

ACCESSORIES:

CM 0120
Cement Flow Mold ASTM

CM 0121
Tamper ASTM

CM 0122
Cement Flow Mold EN

CM 0123
Tamper EN

TECHNICAL SPECIFICATIONS:

Product code	CM 0118 / CM 0118-1	CM 0119 / CM 0119-1
Table diameter	254 mm	500 mm
Cone base/top diameter	100.0 mm / 70.0 mm	100.0 mm / 70.0 mm
Cone Height	50.0 mm	50.0 mm
Drop Height	12.7 mm	12.7 mm
Dimensions	260x260x270 mm	470x360x350 mm
Weight (approx.)	13 kg	36 kg
Power	180 W (Motorized)	180 W (Motorized)

Vicat Apparatus

DESCRIPTION:

Vicat Apparatus is used for determining setting time and consistency of cement by Vicat Method.

The Vicat Apparatus set is complete with:

Initial Set Needle, Final Set Needle, Vicat mold, Vicat Thermometer, Glass Plate and a consistency Plunger.



EN 196-3; 13454-2; ASTM C187; C191;
AASHTO T129; T131

ORDERING:

CM 0124

Vicat Apparatus complete set.

CM 0126 Vicat
Mold, EN

ACCESSORIES:

CM 0125

Initial Set Needle 1.13 mm dia., EN

CM 0126-1 Vicat
Mold, ASTM

CM 0125-1

Final Set Needle 1.13 mm dia., EN

CM 0126-2 Vicat
Thermometer,

CM 0125-2

Initial Set Needle 1 mm dia., ASTM

CM 0126-3 Glass
Plate,

CM 0126-4 Consis-
tency Plunger

TECHNICAL SPECIFICATIONS:

Dimensions	150x220x318 mm
Weight	3 kg

Automatic Vicat Apparatus

DESCRIPTION:

The Automatic Vicat Apparatus, is used to determine the setting time and consistency of the cement mortar by using vicat method. The penetration depth is measured by a sensor with 0.1mm resolution.

Along with hardening process development the penetration depth decreases, when it matches some thresholds pre-defined by Standards initial and final setting times are measured and recorded.

The entire test is made in a fully automatic cycle and provides precise and repeatable results. The results are then printed on the integrated printer.

The Automatic Vicat apparatus consist of Windows Software and RS232 Cable, Consistency plunger, Initial needle, Final needle and Mold.

EN 196-3; 13454-2; ASTM C187; C191;
AASHTO T129; T131



TECHNICAL SPECIFICATIONS:

Dimensions	300x555x610 mm
Weight (approx.)	56 kg
Power	200 W

MAIN FEATURES:

- Transfer each single control or function of the Vicat on the PC
- Verify in real time each phase of the test
- Automatically download the final results

Automatic Vicat Apparatus

EN 196-3; 13454-2; ASTM C187; C191;
AASHTO T129; T131

ORDERING:

CM 0127

Automatic Vicat Apparatus
complete set

ACCESSORIES:

CM 0128

Consistency plunger

CM 0127-1

Initial needle, 1.13 mm dia EN

CM 0127-2

Final needle, 1.13 mm dia EN

CM 0127-3

Initial needle, 1.13 mm dia ASTM

CM 0127-4

Final needle, 1.13 mm dia ASTM

CM 0127-5

Needle cleaning Device

CM 0128

Windows Software and
RS232 Cable

CM 0129

Printer Paper rolls, pack of 10

CM 0130

Mold

CM 0131

Thermostatically-controlled
heating/cooling system, for
testing samples under water
as per EN 196-3

Plunger Penetration Apparatus

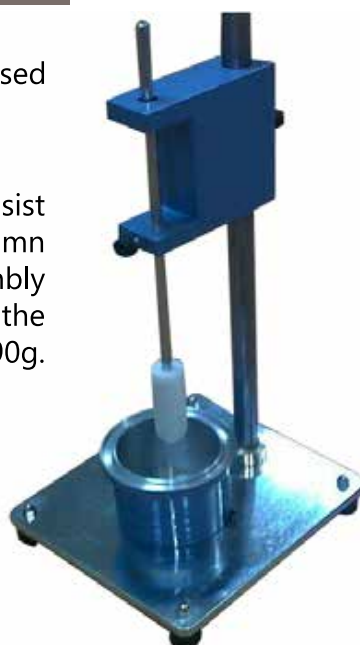
EN 413-2; 459-2; 1015-4; DIN 4211

DESCRIPTION:

The Plunger Penetration Apparatus is used to determine the consistency of fresh mortar, lime and masonry cement.

The plunger penetration apparatus consist of steel base, test cup, vertical column holding the penetration plunger assembly. The height of the drop is 100 mm and the weight of the plunger assembly is 90g.

Supplied complete with test cup and tamper, both made from an- iodized aluminum.



ORDERING:

CM 0132

Plunger Penetration Apparatus
complete

ACCESSORIES:

CM 0133

Test cup

CM 0134

Tamper

TECHNICAL SPECIFICATIONS:

Dimensions	200x200x700 mm
Weight	6 kg

Gillmore Apparatus

ASTM C91; C141; C266; C1398; AASHTO T154

DESCRIPTION:

The Gillmore Apparatus is used to determine the setting time of cement.

The apparatus consist of two horizontal arms which carry two weight steel needles that are calibrated to meet the specifications.

The initial needle has 2.12mm dia and weight of 113g, while the final setting needle has 1.06mm dia. and weight of 453.6g

TECHNICAL

SPECIFICATIONS:

Dimension	Weight (approx.)
200x50x250 mm	2.5 kg



ORDERING:

CM 0135

Gillmore Apparatus

Dropping Ball Apparatus

BS 4551; 6463-4

DESCRIPTION:

The Dropping Ball Apparatus is used to measure the consistency of cement mortars, this allows a 25mm diameter acrylic ball to fall freely from a standard height of 250mm into a brass ring mold containing a mortar specimen with a carefully prepared surface.

The depth of the ball penetration into the mortar gives the specimen consistency.

The apparatus consists of a dropping device mounted on a stand, acrylic ball and a 100mm diameter x 25mm deep mold. The base of the stand is machined with a chrome finish.



ORDERING:

CM 0136

Dropping Ball apparatus

CM 0137

Ball Penetration measuring device with dial gauge 25x0.01mm

TECHNICAL SPECIFICATIONS:

Weight (approx.)	6 kg
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Cement Shrinkage Apparatus

EN 1367-4, 12617-4, 12808-4; ASTM C151, C157, C227, C311, C341, C342, C441, C452, C490, C531, C596, C806, C878; BS 1881:5, 6073

DESCRIPTION:

Cement Shrinkage Test Machine Length Comparators are used to determine the length changes on different type of cement prisms.

The set consists of a length measuring frame with measuring device attached to it. There are 2 models available either with dial gauge or with transducer and data logger

Cement shrinkage test set comprise of main apparatus, and reference rods.

Steel inserts, Reference rod and molds should be ordered separately according to standard.



ORDERING:

CM 0138

Cement Shrinkage Test Set with dial gauge

CM 0139

Cement Shrinkage Test Set with transducer

ACCESSORIES:

CM 0140

Digital Dial gauge 0.001 mm x 20 mm

CM 0141

Reference Rod 160 mm EN 12617-4

CM 0141-1

Reference Rod 205 mm EN1367-4

CM 0142

Reference Rod 305 mm ASTM C490

CM 0143

Three gang Prism mold 40x40x160 mm EN 12617-4

CM 0143-1

Three gang Prism mold 50X50X200mm

CM 0144

Two gang Prism mold 25x25x285 mm to ASTM C490

CM 0145

Steel inserts, 10 pieces

TECHNICAL SPECIFICATIONS:

	CM 0138	CM 0139
Dimensions	180x180x450 mm	250x250x650 mm
Weight (approx.)	6 kg	8 kg

CM 0146

Transducer, 20mm

CM 0147

Data logger

Water Retention Apparatus

DESCRIPTION:

Used for determining the water retention value of cement and lime. Two models available:

One fitted with aspirator pump and analog vacuum gauge with regulator
The other with a portable vacuum pump and digital vacuum gauge with regulator



ASTM C91; ASTM C110

ORDERING:

CM 0148

Water Retention Apparatus with aspirator pump vacuum regulator.

CM 0149

Water Retention Apparatus with vacuum pump digital vacuum regulator.

TECHNICAL

SPECIFICATIONS:

Weight	8 kg
Dimensions	230 V/50-60 Hz/1ph

Bulk Density of Cement

DESCRIPTION:

Used to determine the Bulk Density of Cement powder and non-cohesive materials.

It consists of a sieve funnel with tripod, a unit weight measure 1 liter capacity, spatulas, straight-edge and aluminum scoop.



ORDERING:

CM 0150

Bulk Density of Cement Apparatus

TECHNICAL

SPECIFICATIONS:

Overall Dimensions	350x350x520 mm
Weight (approx.)	3 kg

Autoclave Apparatus

DESCRIPTION:

The Autoclave Apparatus is used to perform expansion tests on cement specimens caused by hydration of CaO and MgO.

This is done by determining the volume constancy of mortar prism samples.

Test bars are exposed to high-pressure steam compartment, which accepts a sample holder for 10 specimens.

The specimens can be tested cementanlisly at a maximum pressure of 360 psi (25 bar) and a max temperature of (250°C)



ASTM C151; ASTM C141; AASHTO T107

MAIN FEATURES:

- Pressure gauge 0 - 25 Bar
- Specimen rack 10 samples max.
- Digital temperature regulator 0 - 225 °C

ORDERING:

CM 0151

Autoclave Apparatus complete

ACCESSORIES:

CM 0152

O-ring lid sealing gasket

CM 0153

Specimen Rack

CM 0154

Lid sealing gasket

TECHNICAL SPECIFICATIONS:

	Dimensions	Pressure
Steam chamber	114 mmID X 406.4 mm	up to 25 bar

Heat of Hydration Apparatus

BS 4550; ASTM C186; BS 1370; EN 196-8



MAIN FEATURES:

- Resolution 0.001°C
- Displays, saves and prints Delta T min, max and mean value
- PT100 probe measuring range -40 to +300°C

ORDERING:

CM 0155

Heat of Hydration Apparatus complete.

ACCESSORIES:

CM 0156

Beckman centesimal glass mercury thermometer

CM 0157

Digital Thermometer. Resolution: 0,01°C. Complete with probe

CM 0157-1

Digital Thermometer. Resolution: 0,001°C.

- Memory for 10000 readings
- Displays, stores and prints: min, max, mean values, delta T
- Alarm if limit values are exceeded
- Battery operated

CM 0157-2

Propeller, conforming to ASTM C186 Specifications

CM 0157-3

Propeller, conforming to EN 196-8 Specifications.

CM 0157-4

Paraffin wax with melting point 55°C to coat the glass parts which are in contact with the hydrofluoric acid.

CM 0157-5

Dewar flask

CM 0158-6

Filler glass funnel

DESCRIPTION:

This Apparatus is used to determine the heat of hydration of low heat cement as expressed in calories per gram. When Portland or hydraulic cement is mixed with water, heat is generated as a result of the exothermic reaction. The heat generated by cement's hydration raises the temperature of concrete and this temperature rise causes expansion while concrete is hardening.

The apparatus consists of a Dewar flask housed in an insulated box, an electric stirrer, a filler funnel and a high resolution thermometer.

TECHNICAL SPECIFICATIONS:

Dimensions	300x200x650 mm
Weight (approx.)	13 kg

Langavant calorimeter for heat of hydration of cement

EN 196-9

DESCRIPTION:

Langavant method consists of introducing a fresh cement specimen into a isolated Dewar flask and monitoring the temperature changes within the specimen during the first early days.

After a certain time, the heat of hydration of the cement content in the sample is equal to the sum of the heat accumulated in the flask and the heat emitted to the environment during the test period.

The temperature of the mortar is compared with the temperature of a inert sample placed in a reference calorimeter flask .

The amount of heat achieved by the cement mortar is mainly dependent on the nature thereof, and may reach values between 10 °C and 50 °C.

The amount of heat is expressed in joules per gram of cement .

ORDERING:

CM 0159

Langavant calorimeter for heat of hydration of cement complete set

ACCESSORIES:

CM 0160

Set of 2 isolated calorimeter bottles

CM 0161

Set of 2 temperature probes type Pt-100, with 3 threads .

CM 0162

Set of 50 disposable mortar box.

CM 0163

Electronic console, with 4 measuring channels, and RS232 output interface for connecting up to 4 calorimeter bottles to the PC.



TECHNICAL SPECIFICATIONS:

Dimensions	300x200x650 mm
Weight (approx.)	13 kg

It consist of 2 isolated calorimeter bottles set 2 temperature probes type PT-100 set with 3 threads, 50 disposable mortar box set and an electronic console with 4 measuting channels, and RS232 output interface for connecting up to 4 calorimeter bottles to the PC.

Manual Mortar Mixer

DESCRIPTION:

The Manual Mortar Mixer is designed to mix mortar and cement paste to required standard.

The mixer is controlled by ON/OFF switch, it has two different speeds. The mixing paddle revolves at a rate of 140 rpm. with a planetary motion of 62 rpm, in low speed.

In high speed the paddle revolves at the rate of 285 rpm. with a planetary motion of 125 rpm. The user can choose the speeds easily by using the switch fitted to the machine.

The Manual Mortar Mixes comes complete with :Stainless steel bowl and mixing paddle.



EN 196-1, 196-3, 413-2, 459-2, 480-1, 1015-2, 12617-4
ASTM C187, C305, AASHTO T129, T131, T162

MAIN FEATURES:

- It can operate on 2 different speeds
- It comes in 5ltrs / 10ltrs capacity

TECHNICAL SPECIFICATIONS:

Dimensions	300x555x610 mm
Weight (approx.)	54 kg
Power	200 W

ORDERING:

CM 0164 Manual Mortar Mixer 5ltr

CM 0164-1 Manual Mortar Mixer 10ltr

Automatic Mortar Mixer



EN 196-1, 196-3, 413-2, 459-2, 480-1, 1015-2, 12617-4; ASTM C187, C305; AASHTO T129, T131, T162

DESCRIPTION:

The Automatic Mortar Mixer is used to combine mortars and cement pastes to the requirement of standards. The mixing paddle has a planetary motion and is operated by a motor.

The motor has microprocessor based speed and preset programs to meet all listed EN and ASTM standards, costum designed programs or manual mode.

The machine has a mode button, which the operator can use to switch between programs. The mixing paddle has a revolving rate of 140 r.p.m in low speed. In high speed the revolving rate of the paddle increases to 285 r.p.m and has a planetary motion of 125 r.p.m

The mixer is supplied complete with an automatic sand dispenser. After 30 seconds, the sand is automatically released. The operator can choose between 6 different programs, where the sand dispenser position, motor speed and duration of the mix can all be set differently. The mix time is shown on the display.

TECHNICAL SPECIFICATIONS:

Dimensions	300x555x610 mm
Weight (approx.)	56 kg
Power	200 W

ORDERING:

CM 0165
Automatic Mortar Mixer 5ltr complete set

CM 0165-1
Automatic Mortar Mixer 10ltr complete set

ACCESSORIES:

CM 0166
Automatic sand dispenser

CM 0167
Mixing Bowl 5ltr

CM 0168
Mixing Bowl 10ltr, stainless steel complies with EN 196

CM 0169
Paddle, 5 Hv

CM 0170
Paddle, 10 Hv

CM 0171
Scraper

Flame photometer

EN 196-21; ASTM C 114

DESCRIPTION:

The Flame Photometer is a device is used in inorganic chemical analysis to determine the concentration of certain metal Ions, among them Sodium, Potassium, Lithium, Barium and Calcium.

In principle, it is a controlled flame test with the intensity of the flame color quantified by photoelectric circuitry.

The instrument is fitted with automatic flame failure detection for user safety, making it ideal for use in laboratory, industrial sites and educational applications.

MAIN FEATURES:

- Designed for industrial analysis
- Supplied with Na, K, Li, Ba and Ca filters
- Low temperature, single channel
- Flame failure safety system
- Operates with propane, butane, natural gas or LPG

ORDERING:

CM 0172

Flame Photometer supplied complete with Na, K, Ba, Ca and Li filters, connecting hoses and clips, compressor plug and drain trap.

ACCESSORIES:

CM 0172-1

Calcium filter

CM 0172-2

Lithium filter

CM 0172-3

Barium filter



Muffle Furnace

DESCRIPTION:

The Muffle Furnaces are widely used for determining various properties of construction materials such as the loss of ignition.

Vertical lift door directs heat away from user and saves counter space. A safety interlock switch disconnects power when the door is open.

Vertical lift door has maximum access with minimum head room for easy loading and unloading.



EN 196-2; EN 459-2; BS 1016:4;
ASTM D2361; D 2795

ORDERING:

CM 0173

Muffle furnace, 1100C, 3L

CM 0174

Muffle furnace, 1100C, 8.2L

CM 0175

Muffle furnace, 1100C, 13L

CM 0176

Muffle furnace, 1100C, 22L

CM 0177

Muffle furnace, 1100C, 39L

CM 0178

Muffle furnace, 1300C, 8.6L

MAIN FEATURES:

- It is front loading for easy operation
- Double skin constructed to maintain a cool outer case.
- Temperature control by a PID digital system.
- Available in several sizes.

Muffle Furnace

EN 196-2; EN 459-2; BS 1016:4; ASTM D2361;
D 2795

TECHNICAL SPECIFICATIONS:

	CM 0173	CM 0174	CM 0175
Internal Dimensions	125x200x115 mm	200x300x133 mm	225x360x183 mm
External Dimensions	340x470x430 mm	440x620x510 mm	500x890x610 mm
Weight (approx.)	20 kg	28 kg	58 kg
Power	1.8 KW	1.8 KW	1.8 KW
Temperature controller	Digital	Digital	Digital
Max. Temperature	1100 °C	1100 °C	1100 °C
Temperature deviation at set point	± 2°C	± 2°C	± 2°C
Heat Up time to Max. temperature	50 min	65 min	50 min
Internal Volume	3 L	8.2 L	13 L
Phase	1	1	1

	CM 0176	CM 0177	CM 0178
Internal Dimensions	275x500x155 mm	315x515x225 mm	180x310x155 mm
External Dimensions	600x890x610 mm	650x550x580 mm	510x750x640 mm
Weight (approx.)	58 kg	74 kg	39 kg
Power	3 KW	6 KW	2.9 KW
Temperature controller	Digital	Digital	Digital
Max. Temperature	1100 °C	1100 °C	1300 °C
Temperature deviation at set point	± 2°C	± 2°C	± 2°C
Heat Up time to Max. temperature	50 min	75 min	50 min
Internal Volume	22 L	39 L	8.6 L
Phase	1	3	3

Vibrating machine

BS 4550

DESCRIPTION:

The Vibrating Machine is used for the preparation and compaction of 70.7 mm mortar cube specimens.

The mold table is mounted on four springs attached to an eccentric shaft which allows each sample to be vibrated at 12000 cycles per minute. There is a timer on it to preset time and it stops automatically in every 120 seconds.



TECHNICAL SPECIFICATIONS:

Dimensions	450x650x850 mm
Weight (approx.)	80 kg
Eccentric Shaft Rotation	12000 r.p.m
Power	1100 W

MAIN FEATURES:

- The simple design of the machine facilitates easy assembly and dismantling of the cube molds.

ORDERING:

CM 0179
Vibrating apparatus

ACCESSORIES:

CM 0180
Set of springs

CM 0192
Cube Mold 70.7 mm

Jolting Table Apparatus

BS 3892; EN 196-1

DESCRIPTION:

Jolting Table Apparatus is used for compacting cement specimens in 40x40x160 mm prism mold.

The Jolting apparatus consists of mold table seated on a rotating cam driven at 60 revolutions per minute. The Jolting Table is 15.0 mm drop equipped with counter which provides automatic shut off at end of preset drop numbers. Rapid mold lock and release system allows easy and quick operation

The supporting frame of the machine has been designed to ensure precise dimensions, table flatness, correct centering of the three gang mold on the table.

The motor and gearbox assembly is enclosed in a protective housing, which promotes user safety (the moving parts are inaccessible) and long life for the gearbox. Feed Hopper is used for filling Three Gang Molds placed on Jolting Table. Three Gang Mold, Feed Hopper and Soundproof Safety Cabinet should be ordered separately.

MAIN FEATURES:

- The simple design of the machine facilitates easy assembly and dismantling of the prim molds.

ORDERING:

CM 0181
Jolting Table Apparatus

ACCESSORIES:

CM 0182
Prism mold 40x40x160 mm

CM 0183
Feed hopper

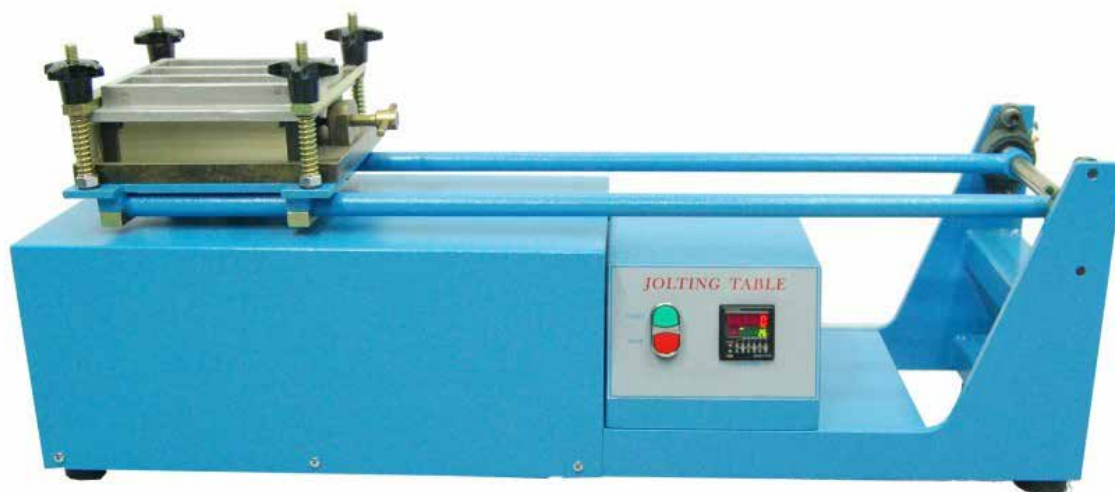
CM 0184
Glass plate

CM 0185
Sound proof safety cabinet

CM 0186
Standard reference sand. EN 196-1 ,
1350 gram per bag

TECHNICAL SPECIFICATIONS:

	CM 0181
Dimensions	1050x350x500 mm
Weight (approx.)	55 kg
Motor Speed	60 r.p.m
Drop Height	15 mm
Power	250 W



Prism Mold

DESCRIPTION:

The Prism Mold is manufactured of steel with hardness over HV400 the surface is heat treated to comply with the related standards.

TECHNICAL SPECIFICATIONS:

	Dimensions
CM 0182	40x40x160 mm
CM 0182-1	50x50x200 mm
CM 0182-2	25x25x250 mm
CM 0182-3	75x75x254 mm
CM 0182-4	25x25x285 mm



BS 3892-1; 4551-1; EN 196-1; 413-2; 459-2; 1744-1; 1015-10,11; 13454-2

ORDERING:

CM 0182
Prism mold 3 Gangs,
40x40x160mm

CM 0182-1
Prism mold 3 Gangs,
50x50x200mm

CM 0182-2
Prism mold 2 Gangs,
25x25x250mm

CM 0182-3
Prism mold 2 Gangs,
75x75x254mm

CM 0182-4
Prism mold 2 Gangs,
25x25x285mm

ACCESSORIES:

CM 0187
Steel inserts 6pcs

CM 0183
Feed hopper

CM 0188
Standard reference
sand. EN 196-1 2006,
1350 gram per bag

Three Gang Cube Mold 50x50x50

DESCRIPTION:

The Three Gang Cube Mold is manufactured of cast iron, all internal surfaces are machined. All the dimensions and specifications comply with the related standards.

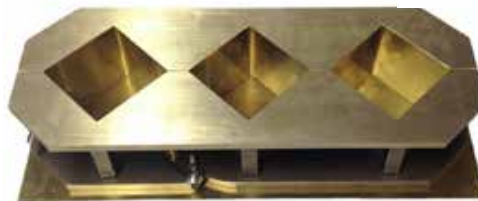
CM 0189 This cast iron three gang mold is diagonal arrangement 50 mm mortar cube, molds with a detachable brass base plate.

Wing nut clamp lock the mold to the base white stainless steel thumbscrews secure the halves tightly together.

Large screed of upper surface area makes this mold a preferred choice.

TECHNICAL SPECIFICATIONS:

	Dimensions
CM 0189	50x50x50 mm



ORDERING:

CM 0189
Three Gang Cube Mold
50x50x50 Brass

CM 0190
Three gang Cube Mold
50x50x50 stainless steel



Briquette Mold

DESCRIPTION:

The briquette mold is used for casting cement briquettes for tensile strength testing. Manufactured of brass it is a two part split mold with thumb screws for quick assembling and dismantling of the mold.

The minimum cross section of the briquettes cast is 25.4mm x 25.4mm. Supplied complete with a steel base plate.

TECHNICAL SPECIFICATIONS:

Product code	CM 0191
Dimensions	25.4x25.4 mm



BS 4450

ORDERING:

CM 0191
Briquette Mold

Cube Mold 70.7 mm

EN 196-1; ASTM C109; BS 4550

DESCRIPTION:

The 70.7 molds have been manufactured from steel all internal surfaces are machined.

Supplied complete with baseplate. All dimensions and specifications comply with the related standards

ORDERING:

CM 0192
70.7mm Cube Mold

CM 0193
Three Gangs, 70.7mm Cube Mold



TECHNICAL SPECIFICATIONS:

	CM 0192	CM 0193
Dimensions	75x75X75 mm	100x125X90 mm
Weight (approx.)	0.5 kg	3.5 kg

Air Content Meter for Mortar, Masonry Cement and Lime

DESCRIPTION:

The Air content meter for mortar is designed to determine the air content in cement mortar, cement paste and lime mortar.

Made from cast aluminum, the test pot one liter capacity and the upper part are air-tight sealed by means of two quick action spring clamps.

The whole is connected to a dial gauge directly indicating the air entrainment in percentage, with range 0-50%.

A built-in operated air pump is also included. The push-buttons TEST and CORRECTION are arranged to perform the test in a simple and quick system.



EN 459-2; EN 413-2; EN 1015-7

ORDERING:

CM 0194
Mortar, Manual Air Content Meter 1 ltr.

CM 0195
Motorized Mortar Air Content Meter, 1 ltr. With an electric mini-compressor to keep the air pressure constant.

CM 0196
Motorized Mortar Air Content Meter, 0.75 ltr. With an electric mini-compressor to keep the air pressure constant.

ACCESSORIES:

CM 0197
Mini Compressor

TECHNICAL SPECIFICATIONS:

Dimensions	320 mm high, 20 mm dia.
Weight (approx.)	3.5 kg

Humidity Curing Cabinet

DESCRIPTION:

The humidity curing cabinet is used for curing cement test samples.

The curing cabinet provides from -25°C to +70°C temperature and up to 98% humidity of cement specimens by an immersion heater and refrigerator unit which are supplied complete with the cabinet.

The internal chamber and racks are made of stainless steel. The cabinet is equipped with digital control unit to monitor the temperature and humidity and recording chart.



TECHNICAL SPECIFICATIONS:

Net Interior volume	130 L	370 L
Net weight of the unit	70 kg	95 kg
Interior Dimension		
Width	450 mm	500 mm
Depth	535 mm	580 mm
Height	520 mm	1250 mm
Shelve Dimension		
Width	400 mm	460 mm
Depth	500 mm	570 mm
Number of Interior Shelves	2	5
Main door	1	1
Energy consumption at 37 °C	1.55 kWh/h	1.92 kWh/h

Temperature range	-25/+70°C / 0/+70°C
Temperature fluctuation	±0.1 C
Humidity range	10 to 98 % RH
Humidity fluctuation	≤ 3 ± % RH
	Controller data
Controller	Cycle monitoring touch screen programmer
Program	1
Steps	20
Exterior and interior structure	White plastic coated galvanized steel or Stainless steel AISI 304
Insulation	CFC and HCFC free
Door	Reversible self closing door with magnetic gaskets plug
Grids	Removable and height adjustable plastic-coated steel
Type alarm	Audio-visual
Alarm parameter	Hot temperature
Security device	Safety device with manual reset class 1 (DIN 12880)

EN 196-1, 1367-1, 12390-2, 12371, 13383-2, 1324, 12004, 1348, 1346, 1308, 12002; ASTM 2247-11, ASTM C581-03, ASTM D 2247-11, ASTM E 104-02

MAIN FEATURES:

- Product Control relative Humidity 10% to 98% ±3%
- Temperature stability of ±0.1°C
- Programmable model available

ORDERING:

CM 0198
Constant Climate Chamber
CB-CS PRO Series 130L

CM 0199
Constant Climate Chamber
CB-CS limited series 130L

CM 0200
Constant Climate Chamber
CB-CS limited series 370L

CM 0201
Constant Climate Chamber
CB-CS PRO Series 370L

Cement Compression and Flexural Machine

EN 196-1 459-2, 1015-11 13454-2 ASTM C109
C348, C349 BS 3892-1 4551-1

DESCRIPTION:

The Cement Compression and Flexural Machine 25/250 KN is Fully Automatic and has been designed for testing the compression on the 50x50x50 mm cube moulds, 40x40mm and the flexural on the 40.1x40 x160 mm prism moulds according to the related standards.

The machine consist of very rigid two column frame with double test chamber, automatic closed loop controlled hydraulic power pack and LCD graphic digital control and readout unit.

Very silent power pack can load a specimen between 1 kN/sec to 20 kN/sec.

On the dual stage pump high delivery low pressure pump is used for rapid approach and low delivery high pressure radial piston pump is used for test execution.

On all power packs maximum pressure valve is used to avoid machine overloading.

On both frame the load is measured by load cell to get accurate test results. The machine is supplied with safety doors and can test samples up to 250KN.

TECHNICAL SPECIFICATIONS:

Product Code	CM 0202	CM 0203
Test Type	Full-Auto compression	Semi-Auto compression
Capacity	250 kN	250 kN
Class 1 Measuring range	25 to 250 kN	25 to 250 kN
The roughness value for texture of loading and auxiliary platens	$\leq 3.2 \mu\text{m}$	$\leq 3.2 \mu\text{m}$
Lower Platen dimensions	165 mm	165 mm
Upper Platen dimensions	165 mm	165 mm
Maximum vertical clearance between platens	263 mm	263 mm
Piston diameter	160 mm	160 mm
Maximum piston movement	50 mm	50 mm
Horizontal clearance	300 mm	300 mm
Power	550 W	550 W
Oil capacity	20 L	20 L
Maximum working pressure	125 bar	125 bar
Rapid approach rate	50 mm/min	50 mm/min
Dimensions	760x500x1650 mm	760x500x1650 mm
Weight	250 kg	250 kg

MAIN FEATURES:

- Can control 2 frames
- Real time display of test graph.
- Multi-language support
- Different unit system selection; kN, Ton and lb
- Test result visualization and memory management interface

The LCD graphics data acquisition and controls system is designed to control the machine and processing of data from load cells.

The digital graphic display allows real time load vs time graph. At the end of the test cycle, the results can be stored in memory (up to 250 test results) or downloaded to a PC using the soft ware format.



Cement Compression and Flexural Machine

TECHNICAL SPECIFICATIONS:

EN 196-1 459-2, 1015-11 13454-2 ASTM C109
C348, C349 BS 3892-1 4551-1

Product Code	CM 0204	CM 0205
Test Type	Full-Auto compression	Semi-Auto compression
Capacity	250/25 kN	250/25 kN
Class 1 Measuring range	2.5-25 kN / 25-250 kN	2.5-25 kN / 25-250 kN
The roughness value for texture of loading and auxiliary platens	$\leq 3.2 \mu\text{m}$	$\leq 3.2 \mu\text{m}$
Lower Platen dimensions	165 mm	165 mm
Upper Platen dimensions	165 mm	165 mm
Maximum vertical clearance between platens	263 mm	263 mm
Piston diameter	160 mm	160 mm
Maximum piston movement	50 mm	50 mm
Horizontal clearance	300 mm	300 mm
Power	550 W	550 W
Oil capacity	20 L	20 L
Maximum working pressure	30 bar / 125 bar	30 bar / 125 bar
Rapid approach rate	50 mm/min / 80 mm/min	50 mm/min / 80 mm/min
Dimensions	1050x500x1650 mm	1050x500x1650 mm
Weight	410 kg	410 kg

ORDERING:

CM 0202

Full Automatic Cement Compression Testing Machines 250 kN

CM 0203

Semi Automatic Cement Compression Testing Machines 250 kN

CM 0204

Full Automatic Cement Compression & Flexural Testing Machines 250/25 kN

CM 0215

Semi Automatic Cement Compression & Flexural Testing Machines 250/25 kN

ACCESSORIES:

CM 0211

Flexural jig assembly 40x40x160 mm EN 196-1

CM 0211-1

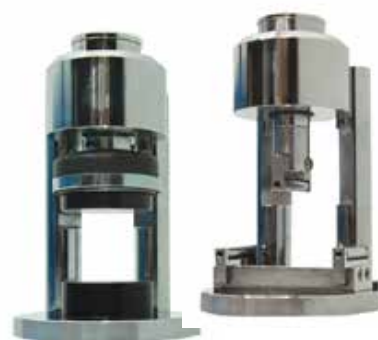
Flexural jig assembly 40x40x160 mm ASTM C109

CM 0212

Compression jig assembly for ASTM C109

CM 0212-1

Compression jig assembly for EN 196-1



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