CEMENT

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CEMENT

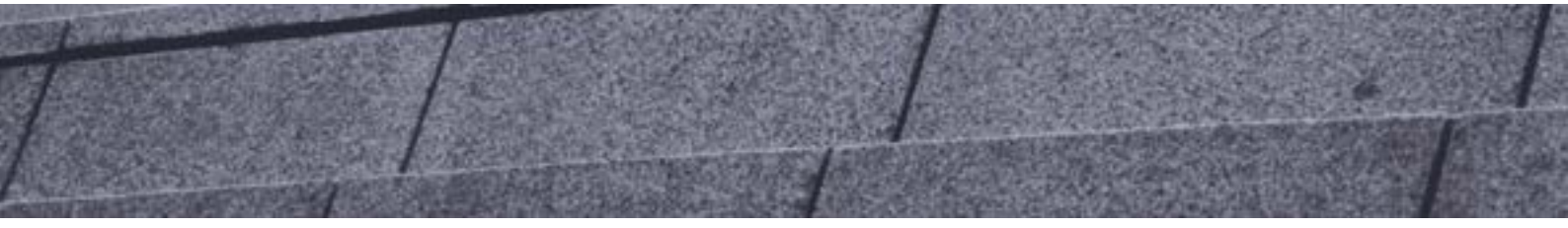
CEMENT COMPRESSION & FLEXURAL TESTER (C-001/LCD)

- Designed to be fully automatic.
- Equipped with an LCD Data Acquisition Control System.
- The load rate is automatically controlled upon the samples.
- Provided with a double testing chamber. It performs flexure test for the size (40 x 40 x 160 mm) and compression test on cubes of size (40 x 40 x 40 mm) and/or (50 x 50 x 50 mm).
- The test results can be transferred to a computer (should be ordered separately) or a thermal printer (should be ordered separately).
- User-friendly 5-Points calibration

TECHNICAL SPECIFICATIONS

- Capacity : 15 kN / 200 kN (Flexure / Compression)
- Rigid 2-Column frame
- Used for flexure and compression tests on cement samples
- Full Automatic
- LCD Graphical Data Acquisiton Control System
- Stops Automatically upon test completion
- Real time graph indication
- Maximum load and stress are shown
- Unit selection available (kN, kgf, lbf)
- User-friendly 5-Points calibration (password protected)
- Supplied with Jigs to perform:
  - Compression Tests on either 40 mm or 50 mm cube samples
  - Flexure Tests on 40 x 40 x 160 mm prism samples
- Power Supply: 220 - 240 V / 50 - 60 Hz (110 V / 60 Hz is also available)

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-001/LCD	95 x 60 x 140 (h)	323



COMPRESSION JIG (C-011/CJ)

- Used for cement compression for the cubes of sizes 40 or 50 mm (to be specified at the time of order).
- The platens have hardness of 60 HRC and the upper one is seat-ball assembled.
- Rust-protected by cadmium.

Compression Device (C-011/CJ)

Code	Samples to be tested	Dimensions (± 1 cm)	Approximate Weight (kg)
C-011/CJ/40	40 x 40 x 40 mm cubes	Dia: 15 / h: 19	12
C-011/CJ/50	40 x 40 x 40 mm and 50 x 50 x 50 mm cubes	Dia: 15 / h: 19	12

FLEXURAL JIG (C-011/FJ)

- The distance between the lower bearers is 100 mm and one of them has a spherical seat.
- Provided with rust protection with the cadmium plating.
- Used for flexure tests of 40 x 40 x 160 mm specimen.

Flexure Device (C-011/FJ)

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-011/FJ	Dia: 15 / h: 19	11

CEMENT COMPRESSION TEST MOULD (C-011)

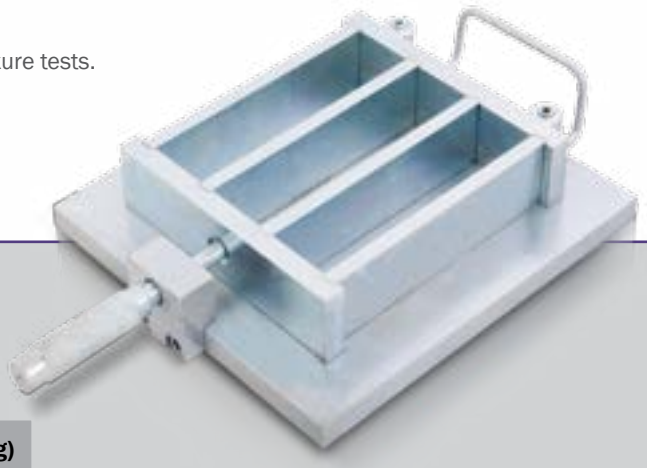
- Used to prepare samples for cement compression tests.
- The mould is available in two sizes:
  - 50.0 x 50.0 x 50.0 mm (3-gang) (C-011/05)
  - 70.7 x 70.7 x 70.7 mm (C-011/07)

Cement Compression Test Mould (C-011/05)

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-011/05	20 x 8 x 6 (h)	4.0
C-011/07	28 x 13 x 8.5 (h)	10

CEMENT FLEXURAL TEST MOULD (C-011/04)

- The 3-gang mould is used to prepare samples for cement flexure tests.
- The internal size for the mould is (40 x 40 x 160 mm).



Cement Flexure Test Mould (C-011/04)

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-011/04	23 x 37 x 6 (h)	11.2

BLAINE APPARATUS (C-035)

ASTM C204 • BS 4359:2

- Used to determine the fineness of the cement.
- Supplied with:
  U-shaped tube, filter papers, plunger, stainless-steel cell and perforated disc.

Blaine Apparatus (C-035)

TECHNICAL SPECIFICATIONS

- Comprising:
  - SS Cell
  - Perforated disc
  - Plunger
  - U-Tube Glass Manometer
  - Filter Paper

MUD BALANCE (C-014)

- Used to determine the density of the mud.
- Consists of a graduated arm with a cup, lid, knife edge, counter weight and carrying case.

Mud Balance (C-014)

TECHNICAL SPECIFICATIONS

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-014	58 x 14 x 12 (h)	2.0

MARSH FUNNEL (C-015)

- Used to determine the viscosity of the drilling mud and other fluid materials.
- Consists of a funnel and graduated cup. Both made from a very strong and break-resistant plastic.

Marsh Funnel (C-015)

TECHNICAL SPECIFICATIONS

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-015	16 x 16 x 37 (h)	0.3

JOLTING TABLE (C-125)

- Used to compact cement mortar prisms in the moulds.
- The 3-gang mould is placed on a table which is mounted above a cam. The rotating cam is driven by a gearbox at 60 rpm.
- Equipped with digital programmable counter for cycle counting.
- Designed to have a very rigid structure for stability purposes.
- The table drop height for Designed to be 15.0 mm.
- The motor and gearbox assembly is enclosed in a protective housing; therefore, there are no moving parts in the body outside the housing.

TECHNICAL SPECIFICATIONS

- Used to compact 40 x 40 x 160 mm cement specimens.
- Digital programmable Counter for cycle.
- Rigid structure for stability.
- Table drop height is 15.0 mm.
- Easily mounted and demounted.
- Power Supply: 220 - 240 V / 50 or 60 Hz (110 V / 60 Hz is also available)

Jolting Table (C-125)

Code	Dimensions (± 1 cm)
C-125	120 x 38 x 46 (h)

CEMENT VIBRATING MACHINE (C-126)

- Used to vibrate cement mortar cube sample in the 70.7 mm cube moulds.
- Mould to be ordered separately

TECHNICAL SPECIFICATIONS

- Vibration Frequency: 12000
- Power Supply: 220 - 240 V / 50 or 60 Hz (110 V / 60 Hz is also available)

VICAT APPARATUS (C-090)

ASTM C187 • ASTM C191 • BS 4550

- The reaction between cement and water are the primary causes of the setting of concrete. The setting time for cement and concrete is determined using the Vicat Apparatus.
- By measuring the setting time for concrete/cement via the penetration resistance method (Vicat Apparatus), the time the concrete/cement can stay fresh can be determined. This time indicates the period the mix can stay in the mixer before pouring it into the moulds/ frameworks.
- Complete with the frame, mould, initial setting time needle, consistency plunger, glass thermometer and the base glass plate.

Vicat Apparatus (C-090)

TECHNICAL SPECIFICATIONS

- Set comprises:
  - Vicat Frame (C-090/F)
  - Vicat Mould (C-090/M)
  - Initial Needle (C-090/IN)
  - Consistency Plunger (C-090/CP)
  - Glass Thermometer (GTC)
  - Glass Plate (C-090/GP)

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-090	13 x 18 x 33 (h)	3.5

AUTOMATIC VICAT APPARATUS (C-090/A)

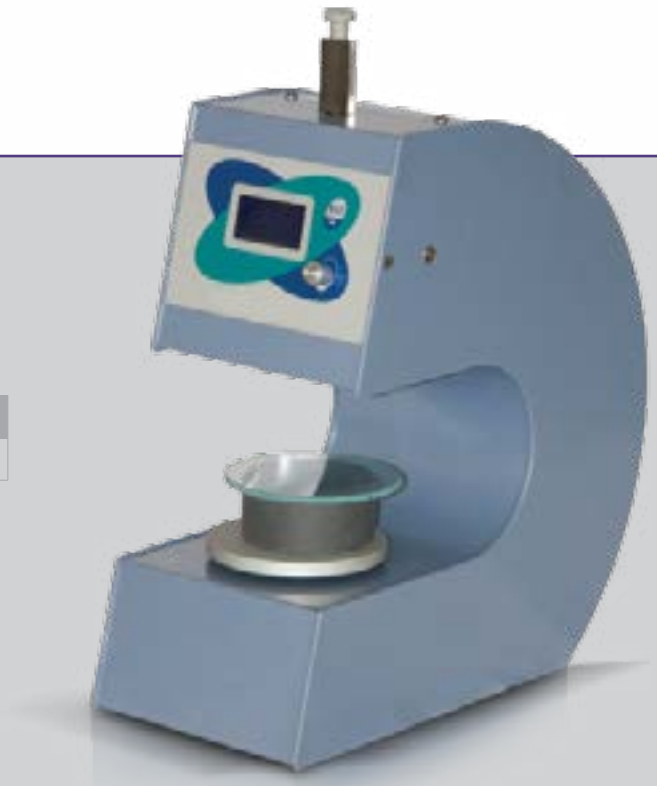
ASTM C187 • ASTM C191 • EN 196-3

- The reaction between cement and water are the primary causes of the setting of concrete. The setting time for cement and concrete is determined using the Vicat Apparatus.
- By measuring the setting time for concrete/cement via the penetration resistance method (Vicat Apparatus), the time the concrete/cement can stay fresh can be determined. This time indicates the period the mix can stay in the mixer before pouring it into the moulds/frameworks.
- Designed to be fully automatic with very precise and reputable result.
- Test results can be easily printed on any incorporated printer.
- Guiding menu is available in multi-languages (English, French, German and Italian).
- Equipped with a large LCD display to show the test results data. The test will automatically print a report with all data.

TECHNICAL SPECIFICATIONS

- Fully automatic, equipped with LCD display

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-090/A	40 x 20 x 47 (h)	13



Automatic Vicat Apparatus (C-090/A)

MOTORIZED CEMENT FLOW TABLE (C-021/M)

- The test gives indications about the consistency of the cement mortars which is one of the most important characteristics for the mortars in the engineering aspects.
- The test is done by placing the specimen in the mould. After specifying the number of drops and running the machine, the plate will raise and drop along with the mould in a specific range for a specified number of times (entered by the user using the digital counter) depending onthe test needs.
- Supplied with the testing mould.

Motorized Cement Flow Table (C-021/M)

TECHNICAL SPECIFICATIONS

- Used for determining the consistency of cement mortars.
- Supplied with mould.

CEMENT FLOW TABLE (C-021)

- The test gives indications about the consistency of the cement mortars which is one of the most important characteristics for the mortars in the engineering aspects.
- The test is done by placing the specimen in the mould. By turning the handle, the mould will raise and drop in a specific range for a specified number of times depending on the test needs.
- Supplied with the testing mould.

Cement Flow Table (C-021)

TECHNICAL SPECIFICATIONS

- Used for determining the consistency of cement mortars.
- Supplied with mould.

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-021	34 x 26 x 32 (h)	13.8

CEMENT/MORTAR MIXER (C-050)

- Used to assure an efficient mixing for the cement and the mortars.
- Can take a capacity up to 5 liters.
- Equipped with a planetary mixing mechanism for better performance.
- The beater speed is adjustable between 140 rpm and 285 rpm.

Cement/Mortar Mixer (C-050)

TECHNICAL SPECIFICATIONS

- Bowl Capacity: 5 Lt.
- Planetary mixing action.
- Beater Speeds: 140 rpm / 285 rpm.
- Power Supply: 380 V (3 phase)

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-050	45 x 56 x 58 (h)	78

AUTOMATIC CEMENT/MORTAR MIXER (C-050/A)

- Used to assure an efficient mixing for the cement and the mortars.
- Can take a capacity up to 5 liters.
- The mixer is equipped with a planetary mixing mechanism for better performance.
- The beater speed is adjustable between 140 rpm and 285 rpm.
- The mixer automatically add the sand at the correct time depending on the selected standard.

Automatic Cement/Mortar Mixer (C-050/A)

TECHNICAL SPECIFICATIONS

- Automatic mixing
- Bowl Capacity: 5 Lt.
- Planetary mixing action.
- Beater Speeds: 140 rpm / 285 rpm.
- Power Supply: 380 V (3 phase)

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-050/A	56 x 56 x 70 (h)	95

MIXING TIME

EN 196-1				
Mixing Water & Cement	Adding Sand	Mixing	Waiting	Mixing
At low speed for 30 sec.	For 30 sec.	At high Speed for 30 sec.	for 90 sec	At high speed for 60 sec.

EN 196-3		
Mixing Water & Cement	Waiting	Mixing
At low speed for 90 sec.	For 30 sec.	At high speed for 90 sec.

EN 196-9			
Mixing Sand & Cement	Adding Water Manually	Mixing	Mixing
At low speed for 30 sec.	User should press “OK” after finishing	At low speed for 60 sec.	At high speed for 60 sec.

LE CHATELIER FLASK (C-022)

- Used to determine the relative density (the specific gravity) for the hydraulic cement and the lime.
- The measurement is done by taking an empty flask, filling it with cement then adding polar liquid and measure the weight of the flask at each step and using it in the related formula.
- The flask neck comes graduated from 0 to 1 ml. and from 18 to 24 ml.
- The accuracy for the graduation on the neck is 0.05 ml.

Le Chatelier Flask (C-022)

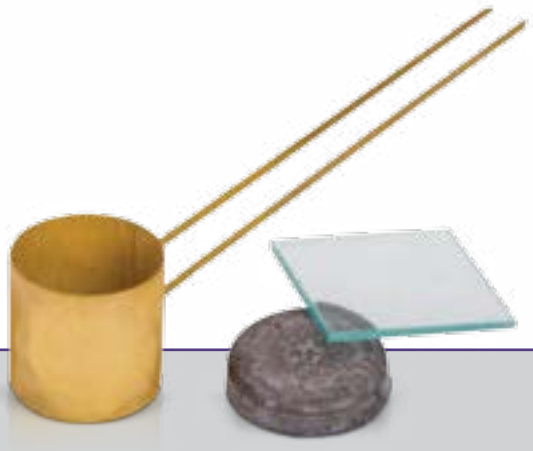
TECHNICAL SPECIFICATIONS

- Graduation (0-1) & (18-24) ml. with 0.05 ml. accuracy.

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-022	9 x 9 x 29 (h)	0.1

LE CHATELIER MOULD (C-023)

- Designed to have an internal diameter of 30 mm for the split cylinder and a height of 30 mm.
- The mould is equipped with two stems.
- Used to determine the soundness for cement in either hot or cold water.



Le Chatelier Mould (C-023)

TECHNICAL SPECIFICATIONS

- Split cylinder 30 mm internal diameter x 30 mm high with two indicator stems.

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-023	18 x 3 x 3 (h)	0.02

LE CHATELIER BATH (G-040/06)

- Used with the Le Chatelier Moulds (to be ordered separately) to determine the soundness of the cement.
- Made from stainless steel interior, and equipped with a stainless steel cover and base shelf.
- Equipped with a digital thermostat and indicator.

Le Chatelier Bath (C-040/06)

SUPPLIED WITH

- Stainless Steel Cover
- Base Shelf

Code	Dimensions (± 1 cm)	Approximate Weight (kg)
C-040/06	35 x 20 x 31 (h)	6.5

TECHNICAL SPECIFICATIONS

- Digital Thermostat & Indicator.
- Interior stainless steel.
- Power Supply: 220 - 240 V / 50 or 60 Hz (110 V / 60 Hz is also available)