



LABORATORY TEST EQUIPMENT

Automatic Cement Compression-Flexural Tester

LT-CE0100 | Separate compression and flexural testing areas

Automatic hydraulic loading • Touchscreen control • Interchangeable jigs



250 kN

COMPRESSION TEST CAPACITY

15 kN

FLEXURAL TEST CAPACITY

100 × 50 × 150 cm • 350 kg • 220 V, 50-60 Hz, single phase

Photographs and Components

Compression and flexural areas, test jigs and touchscreen control system



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The LT-CE0100 automatically determines the compressive and flexural strength of cement mortar specimens. Separate test areas provide 250 kN compression and 15 kN flexural capacities. A shared hydraulic and digital system controls loading and records test data.



Compression test jig and loading faces



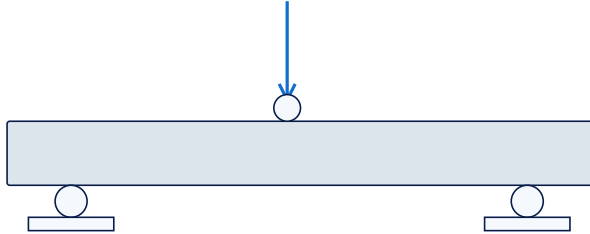
Touchscreen controller and emergency stop

Mortar Prism Flexure and Compression



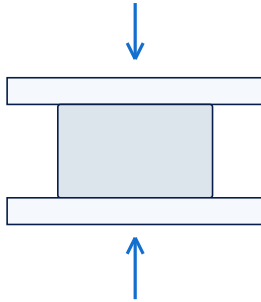
40 × 40 × 160 mm prism • Flexural test • Compression of portions for applicable methods

PRISM FLEXURAL TEST • 15 kN



40 × 40 × 160 mm

PRISM PORTION COMPRESSION • 250 kN



SEPARATE TEST AREAS • SCHEMATIC

Set Up the Flexural Test

Centre a 40 × 40 × 160 mm prism in the flexural jig. Select the test settings.

Load Automatically

Switch from approach to the selected test rate. The system monitors load and graphical data.

Test in Compression

Where required by the method, test broken prism portions in a suitable compression jig.

Compression and flexural sections operate at different force capacities. Portions from a flexural test can be transferred to the compression section with the preparation and loading arrangement required by the applicable method. Match specimen and jig to the selected test.

Test Method and Specimen

EN 196-1 and ISO 679 cover strength testing of standard cement mortar.

ASTM C109/C109M: 50 mm mortar cubes.

ASTM C348: mortar flexural strength.

ASTM C349: compressive strength of prism portions previously broken in flexure.

Automatic Control and Results

The touchscreen system manages test settings and specimen information. Monitor load-time and stress-time graphs during testing.

Testing stops at specimen failure or piston travel limit. The system records maximum force and the calculated strength result.

Models and Technical Specifications



LT-CE0100 dual test area model • LT-CE0250 compression model

Product Code	Capacity (kN)	Dimensions (cm)	kg
LT-CE0100	15 / 250	100 × 50 × 150	350
LT-CE0250	250	85 × 50 × 150	300

Technical Feature	Value / Function
Control System	Touchscreen digital acquisition and control
Loading Rate Management	Automatic PID control
Live Graphs	Load-time and stress-time
Automatic Termination	Specimen failure / piston limit
Protection System	Stroke limit switch and pressure relief valves
Hydraulic Power + Digital Control	LT-CE0150
LT-CE0150 Dimensions / Weight	36 × 38 × 92 cm / 98 kg
Machine and LT-CE0150 Supply	220 V, 50-60 Hz, single phase

Two Models, Different Test Scope

The LT-CE0100 manages its 15 kN flexural and 250 kN compression sections with the same control system.

The LT-CE0250 is a 250 kN automatic compression model. Select the jig and distance piece for the required test.

Fixtures and Clearance Adjustment

The flexural jig accommodates 40 × 40 × 160 mm prisms. Compression jig options include 50 mm cubes, portions of 40 × 40 × 160 mm prisms and 70.7 mm cubes.

Ø150 mm distance pieces in 15, 30, 50 and 90 mm thicknesses allow the working clearance to be adjusted.

Test Jigs and Distance Pieces

Specimen geometries, fixture dimensions and weights



Product Code	Fixture / Specimen	Dimensions (cm)	kg
LT-CE0100/2	Flexural jig; 40 × 40 × 160 mm	15 × 15 × 18	11
LT-CE0100/3	Compression jig; 50 × 50 × 50 mm	15 × 15 × 18	12
LT-CE0100/4	Compression jig; 40 × 40 × 160 mm	15 × 15 × 18	12
LT-CE0100/5	Compression jig; 70.7 mm cube	15 × 13 × 19	9
LT-CE0100/6	Distance piece; Ø150 × 15 mm	Ø15 × 1.5	2
LT-CE0100/7	Distance piece; Ø150 × 30 mm	Ø15 × 3	2.5
LT-CE0100/8	Distance piece; Ø150 × 50 mm	Ø15 × 5	4
LT-CE0100/9	Distance piece; Ø150 × 90 mm	Ø15 × 9	7

Specimen and Test Arrangement

Select the jig for specimen geometry and the applicable test method. Check loading faces and centring before compression testing of prism portions; distance pieces adjust the working clearance.

Test Workflow

