Compression and Flexural Frames

LT-CE0100/1 / LT-CE0250/1 | Cement testing frames

Rigid steel construction • Load cell • Interchangeable test fixtures



15 kN

FLEXURE • LT-CE0100/1

250 kN

COMPRESSION CAPACITY

Mortar prisms and cubes • Ø165 mm platens • Hydraulic system integration

Photographs and Test Components

Rigid frame, loading area and specimen fixtures

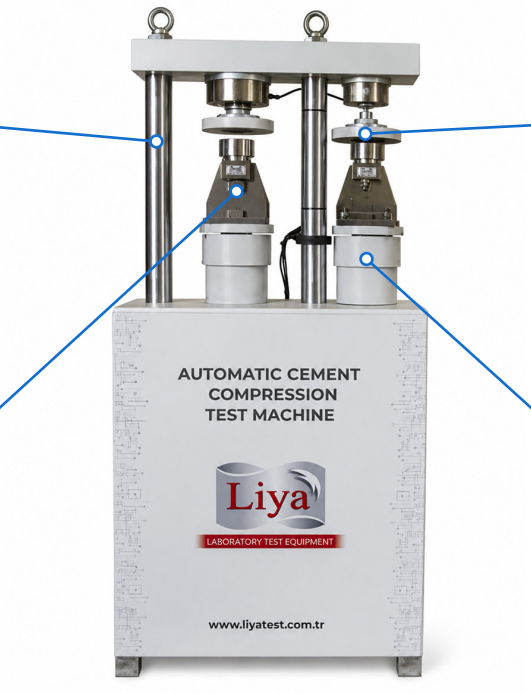
The frames support cement mortar specimens under compression and flexure with suitable fixtures. A load cell measures force; the frame operates with an appropriate hydraulic power pack and control system. Fixture selection depends on specimen geometry and test method.

RIGID FRAME

Supports the specimen and loading arrangement. Check the frame and connections before testing.

UPPER LOADING REGION

Transfers force toward the specimen. Keep platen and fixture contact surfaces clean.



LOADING AREA

Region for the specimen and test fixture. Check alignment and available working space.

LOWER SUPPORT REGION

Carries the lower surface of the test arrangement. Position a suitable fixture and check centring.



LT-CE0100/1 • Compression and flexural test areas



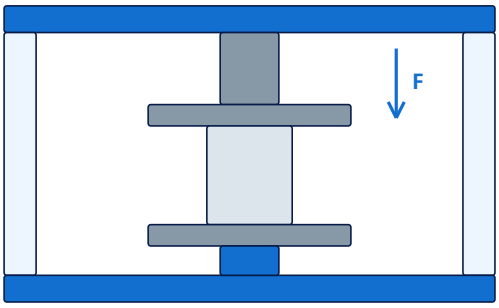
LT-CE0250/1 • Compression frame loading area

Compression and Flexural Test Principle

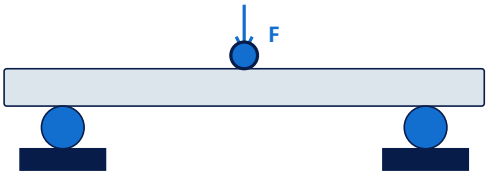
Select fixture • Centre specimen • Load under control • Record failure load

TWO LOADING ARRANGEMENTS • SCHEMATIC

COMPRESSION



FLEXURE



COMPRESSION: OPPOSING LOADING SURFACES

FLEXURE: TWO SUPPORTS AND CENTRAL LOAD

SCHEMATIC VIEW • NOT TO SCALE

Specimen and Fixture

Define the test method. Select a suitable fixture for prisms, cubes or broken prism portions.

Align and Load

Centre the specimen on the load axis. Apply method-specific loading conditions through the control system.

Record and Calculate

Record failure load and specimen data. Calculate strength using the method's geometry and calculation rules.

Compression transfers load to opposing specimen surfaces. In flexure, a prism rests on two supports and is loaded centrally. Force measurement, fixture geometry and specimen dimensions are used together in calculating the test result.

Models and Test Arrangement

LT-CE0100/1 combines 15 kN flexural and 250 kN compression capacity. LT-CE0250/1 is the frame option for 250 kN compression tests.

Build the test arrangement with a suitable hydraulic power pack, control system and fixtures. Ø165 mm compression platens and a spherical-seated upper platen support load transfer along the specimen axis.

Fixtures, Guards and Records

Consider specimen size, test method and loading area together. Use distance pieces to suit the working height and check fixture seating.

Optional transparent front and rear guards help contain broken fragments. Record failure load, specimen dimensions and the fixture used. Calculate strength according to the applicable test method.

Models and Technical Specifications

Capacity in kN • Dimensions in cm • Weight in kg • Fixture-specific arrangement

Product Code	Test Frame	Capacity	Dimensions	Weight
LT-CE0100/1	Compression / Flexure	15 / 250	64 × 50 × 150	250
LT-CE0250/1	Cement Compression	250	50 × 50 × 150	200

Specification	Construction and Application
Frame	Rigid steel construction
Force Measurement	Load cell
Compression Platens	Ø165 mm
Upper Platen	Spherical-seated
Fixture Arrangement	Suitable compression / flexural jig and distance pieces
System Connection	Suitable hydraulic power pack and control system
Guards	Optional transparent front and rear safety doors
EN Test References	EN 196-1 • EN 459-2 • EN 1015-11 • EN 13454-2
ASTM Test References	ASTM C109/C109M • ASTM C348 • ASTM C349
BS Test References	BS 3892-1 • BS 4551-1

Frame, Fixture and Control System Compatibility

Select the frame and jig for the test. Verify hydraulic and control system compatibility, centre the specimen and set loading conditions to the test method.

Mortar Strength Test Workflow

01
Select
Choose the frame and fixture for the specimen.

02
Centre
Check contact surfaces and the load axis.

03
Load
Monitor force and failure load under control.

04
Calculate
Determine strength to geometry and method.

Product Page | liyatest.com.tr/en/urun/compression-and-flexural-frames/