Fully Automatic Concrete Compression Tester

LT-C0200 / C0210 / C0300 / C0310 | Welded wall-type frame

7-inch TFT touchscreen • Automatic test cycle • Hydraulic loading



2000 / 3000 kN

CAPACITY OPTIONS

7-inch TFT

TOUCHSCREEN CONTROLLER

1-20 kN/s loading rate • EN and ASTM configurations • Load-time graphs

Photographs and Components

Loading frame, specimen area, hydraulic power unit and touchscreen controller

The fully automatic concrete compression tester determines the strength of concrete cubes and cylinders. It manages rapid approach, controlled loading and test termination at failure. The 7-inch TFT screen displays test settings and load-time data.

LOADING FRAME

The rigid welded wall-type frame supports a 2000 or 3000 kN loading arrangement.

SPECIMEN AND PLATENS

Centre cubes and cylinders between suitable upper and lower loading platens.

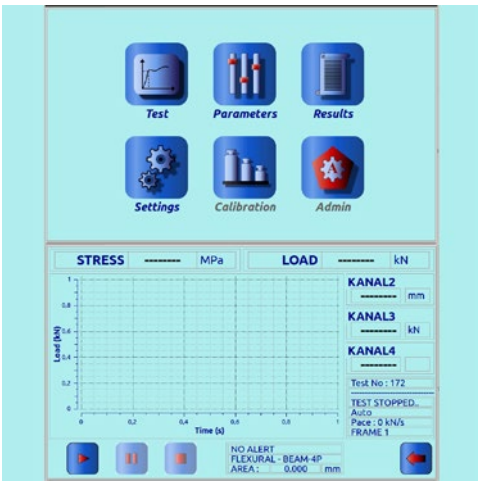


7-INCH TFT SCREEN

Enter specimen data and test settings; monitor the live load-time graph.

HYDRAULIC POWER UNIT

The two-stage pump system provides rapid approach and controlled loading.



Touchscreen data acquisition and control display



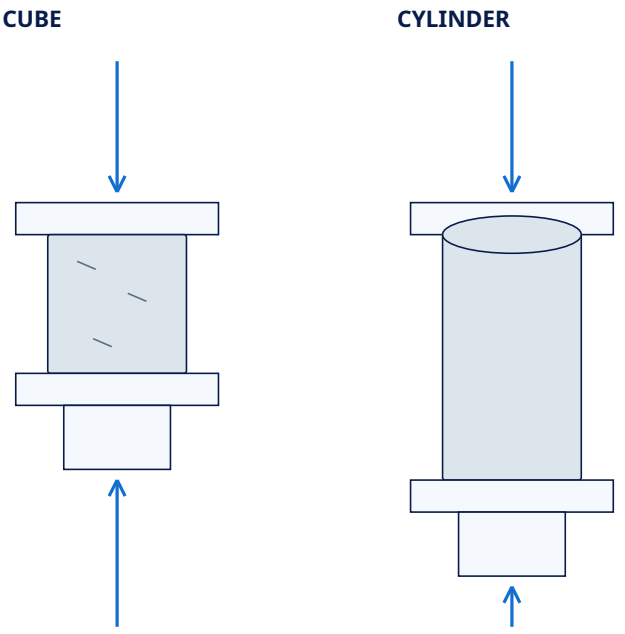
Loading frame and specimen area with protective door

LT-C0200 / C0210 / C0300 / C0310

Automatic Compression Test

Rapid approach • Controlled loading • Failure load and strength calculation

COMPRESSION LOAD BETWEEN PLATENS



CUBE AND CYLINDER • SCHEMATIC

Rapid Approach

The system approaches the specimen. Platen contact triggers the controlled loading stage.

Controlled Loading

Apply force using the selected test settings. The loading rate is adjustable from 1-20 kN/s.

Failure and Recording

The test stops at specimen failure. Peak load and calculated compressive strength are recorded.

The hydraulic system transmits load to the specimen through the platens. The controller monitors load-time data and manages the test cycle. Select specimen type, platen arrangement and loading settings for the chosen test method.

Compressive Strength Calculation

Compressive strength is calculated by dividing the failure load by the loaded cross-sectional area:

$fc = Fmax / A$

Fmax: peak force; A: loaded area. Using N and mm^2 gives strength in MPa. Enter accurate specimen dimensions.

Safety and Data Management

Emergency stop, limit switch, relief valve and protective doors support the test system.

Monitor load-time graphs on the screen. LT-C0229 computer software supports test data recording, processing and reporting.

Model Comparison

EN and ASTM configurations • 2000 kN and 3000 kN capacity options

Technical Feature	LT-C0200	LT-C0210	LT-C0300	LT-C0310
Configuration	EN	ASTM	EN	ASTM
Capacity (kN)	2000	2000	3000	3000
Max. Working Pressure (bar)	410	410	410	410
Motor Power (W)	750	750	750	750
Max. Vertical Clearance (cm)	33	37	33	37
Horizontal Clearance (cm)	35	35	44	44
Piston Diameter (cm)	25	25	32	32
Piston Stroke (cm)	5	5	5	5
Lower Platen Diameter (Ø cm)	30 ±2	16.5	30 ±2	16.5
Upper Platen Diameter (Ø cm)	30 ±2	16.5	30 ±2	16.5
Platen Thickness (cm)	5	5	5	5
Platen Hardness (HRC)	55-60	55-60	55-60	55-60
Surface Roughness (µm)	3.2	3.2	3.2	3.2
Oil Capacity (L)	25	25	25	25

Test Method and Model Selection

EN 12390-3 covers compressive strength testing of hardened concrete specimens. EN 12390-4 defines performance requirements for compression testing machines.

ASTM C39/C39M covers concrete cylinders. Select specimen geometry and test settings for the chosen method.

Platen and Specimen Compatibility

EN and ASTM models have different vertical clearances and platen diameters. Consider specimen geometry and the required test arrangement when choosing a model.

The LT-C0214 rail-mounted block platen assembly enables block and brick testing with a suitable configuration.

Components and Accessories

Loading frames, hydraulic control system, software and mechanical accessories

Product Code	Component / Accessory	Configuration / Function
LT-C0200/1	2000 kN loading frame	EN / welded wall-type
LT-C0210/1	2000 kN loading frame	ASTM / welded wall-type
LT-C0300/1	3000 kN loading frame	EN / welded wall-type
LT-C0310/1	3000 kN loading frame	ASTM / welded wall-type
LT-C0225	Hydraulic power + digital controller	Integrated system
LT-C0226	Hydraulic power unit	Separate / spare component
LT-C0227	Digital acquisition and control system	Data display
LT-C0228	High-precision pressure transducer	Pressure measurement
LT-C0229	Test software	Computer program
LT-C0235	Distance piece	Mechanical accessory
LT-C0236	Distance piece	Mechanical accessory
LT-C0237	Distance piece	Mechanical accessory
LT-C0214	Rail-mounted block platen assembly	Block / brick arrangement
LT-G0800	Computer and printer	Hardware

Completing the Test Arrangement

Select platens, distance pieces and accessories to suit specimen geometry. Before testing, verify specimen dimensions, centring, platen contact and control settings.

Test Workflow

01
Prepare Specimen
Check dimensions and loaded surfaces.

02
Centre and Set Up
Position the specimen; enter test data.

03
Start the Test
Start automatic approach and loading.

04
Save the Result
Report peak load and compressive strength.

Product Page | liyatest.com.tr/en/urun/fully-automatic-concrete-compression-testing-machine-7-tft-touchscreen/