Automatic Flexural Testing Machine

LT-C0600-C0622 | U-Type, C-Type and Two-Column configurations

Automatic hydraulic loading • Digital control • Modular test assemblies



100-400 kN

SERIES CAPACITY RANGE

100-800 mm

ADJUSTABLE LOWER SUPPORT SPAN

1-20 kN/s loading rate • Three- and four-point bending • Splitting tests with suitable fixtures

Photographs and Components

Flexural frame, upper loading assembly, lower support rail and digital controller

The automatic flexural tester determines the strength of concrete beams and other construction materials with suitable fixtures. Its hydraulic system manages approach, controlled loading and test termination. The digital unit monitors and records load-time data.

DIGITAL CONTROLLER

Enter test settings; monitor load, loading rate and the load-time graph.

UPPER LOADING ASSEMBLY

A suitable head and fixture transmit load to the specimen in the selected configuration.

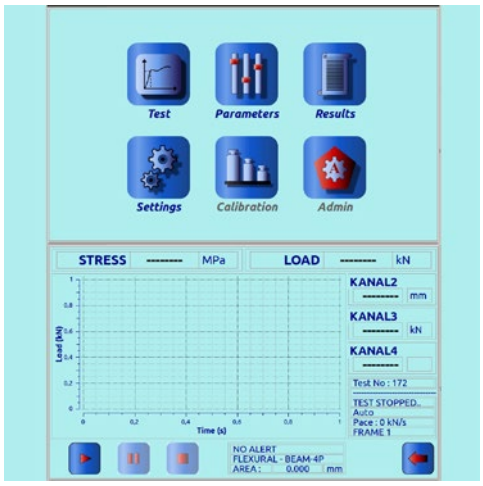


HYDRAULIC SYSTEM

Supplies hydraulic power to the flexural frame for controlled loading.

LOWER SUPPORT RAIL

Adjust support positions for specimen geometry and the required test span.



Digital data acquisition and control display



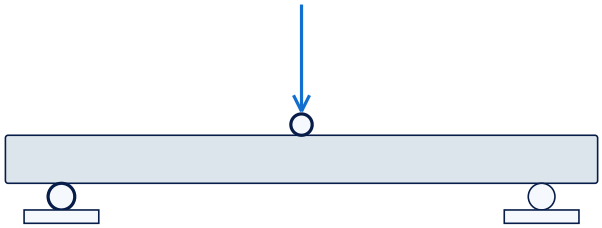
Flexural frame, loading head and lower support rail

LT-C0600-C0622

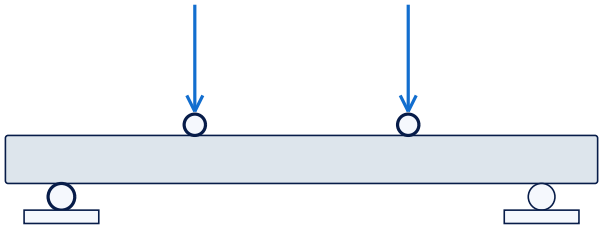
Three- and Four-Point Bending

Selected loading arrangement • Adjustable supports • Controlled failure testing

THREE-POINT



FOUR-POINT



LOWER SUPPORT SPAN: 100-800 mm

Position the Specimen

Centre the beam on the supports. Set span and loading head position for the chosen method.

Load Automatically

Switch from rapid approach to controlled loading. Apply the selected test rate.

Record Failure

Record peak load. Evaluate strength using specimen dimensions and the loading arrangement.

Three-point bending uses one upper loading point; four-point bending uses two upper loading points. Lower supports carry the specimen. Select the strength calculation, support span and loading point positions for the applicable test method.

Specimen and Fixture Compatibility

With a suitable arrangement, the beam fixture accommodates 100 and 150 mm concrete beam sections. Lower support span is adjustable approximately from 100-800 mm.

Choose the relevant bending fixture for kerbs, slabs and stone, or splitting fixture for cubes, paving blocks and cylinders.

Automatic Test Cycle

The system performs rapid approach, switches to controlled loading and terminates the test at failure.

The digital unit displays load and time data. LT-C0229 software supports result storage, comparison and reporting.

Machines and Loading Frames

Capacity, frame type, external dimensions and weight comparison

Product Code	Type	kN	Dimensions (cm)	kg
LT-C0600	U-Type	100	114 × 100 × 100	300
LT-C0601	U-Type	200	114 × 100 × 100	325
LT-C0602	U-Type	300	114 × 100 × 100	400
LT-C0610	C-Type	300	125 × 110 × 125	420
LT-C0611	C-Type	400	130 × 110 × 125	700
LT-C0620	Two-Column	200	152 × 55 × 120	400
LT-C0621	Two-Column	300	152 × 55 × 120	450
LT-C0622	Two-Column	400	152 × 55 × 120	480

Separate Loading Frames

Product Code	Type	kN	Dimensions (cm)	kg
LT-C0600/1	U-Type	100	81 × 100 × 100	200
LT-C0601/1	U-Type	200	81 × 100 × 100	225
LT-C0602/1	U-Type	300	81 × 100 × 100	300
LT-C0610/1	C-Type	300	90 × 110 × 125	325
LT-C0611/1	C-Type	400	90 × 110 × 125	600
LT-C0620/1	Two-Column	200	114 × 55 × 120	300
LT-C0621/1	Two-Column	300	114 × 55 × 120	350
LT-C0622/1	Two-Column	400	114 × 55 × 120	380

MACHINE SUPPLY: 220 V • 50-60 Hz • Single phase

Hydraulic Control and Measurement

Power units, digital acquisition, load cells and computer components

Product Code	Component	Dimensions / Capacity	kg
LT-C0225	Hydraulic power + digital control	38 × 36 × 92 cm	100
LT-C0226	Hydraulic power unit	38 × 36 × 92 cm	100
LT-C0227	Digital acquisition and control	-	-
LT-C0240	Load cell	10 kN	-
LT-C0241	Load cell	20 kN	-
LT-C0242	Load cell	30 kN	-
LT-C0243	Load cell	40 kN	-
LT-C0228	Pressure transducer (optional)	-	-
LT-C0229	Test software	-	-
LT-G0800	Computer and printer	-	-

Component Power Supply

LT-C0225, LT-C0226, LT-C0227 and LT-G0800: 220 V, 50-60 Hz, single phase. The LT-C0228 pressure transducer is optional. Select a measuring capacity suitable for the test load.

Loading and Measurement Performance

Loading rate: 1-20 kN/s.
Loading rate accuracy: approximately ±5%.

The standard measuring configuration provides Class 1 accuracy from approximately 2% of full capacity. Load cells of 10, 20, 30 and 40 kN provide options for lower-load applications.

Test Methods and Safety

EN 12390-5: concrete flexural testing.
EN 12390-6: concrete splitting tensile testing.
ASTM C78/C78M: third-point loading.
ASTM C496/C496M: cylinder splitting.

Emergency stop, limit switch and maximum pressure valve support the test system.

LT-C0600-C0622

Test Assemblies

Beam, kerb and slab bending • Cube, paving block and cylinder splitting

Product Code	Specimen / Test	Dimensions (cm)	kg
LT-C0650	Concrete beam / bending 100 and 150 mm sections EN 12390-5; ASTM C78/C78M	20 × 20 × 20	16
LT-C0651	Concrete kerb / bending EN 1340	62 × 25 × 10	17
LT-C0652	Concrete paving, tiles; stone kerbs, slabs Bending EN 1339; EN 1343; EN 12372	62 × 26 × 15	25
LT-C0653	Cube / splitting tensile 150 × 150 mm EN 12390-6	18 × 15 × 32	15
LT-C0654	Paving block / splitting tensile 60-150 mm height; max. 220 mm length EN 1338; EN 12390-6	24 × 16 × 32	17.5
LT-C0655	Cylinder / splitting tensile Ø100×200; Ø150×300; Ø160×320 mm EN 12390-6; ASTM C496/C496M	34 × 15 × 33	25

Fixture and Method Selection

Select test assemblies separately for the required application. Set specimen dimensions, support span, loading points and result calculation for the relevant test method.

Test Workflow

01
Select the Fixture
Set up for the specimen and test method.

02
Adjust Supports
Centre the specimen and check span.

03
Load Automatically
Enter test data and start the test.

04
Save the Result
Report peak load and calculated strength.

Product Page | liyatest.com.tr/en/urun/automatic-flexural-testing-machine/