Digital CBR Test Machine

LT-S0150 | Digital CBR testing of soil and road materials

50 kN load cell • Displacement sensor • Touch-screen display



50 kN

MAXIMUM LOADING CAPACITY

7″ TFT

TOUCH-SCREEN CONTROL DISPLAY

EN 13286-47 • ASTM D1883

Photographs and Measuring Components

Electronic load cell, displacement sensor and digital control unit

The LT-S0150 determines the CBR of prepared soil and road material specimens. A two-column frame, electronic load cell and displacement sensor allow load and penetration values to be monitored digitally.

LOAD CELL

The 50 kN load cell measures the force applied to the specimen electronically.

DISPLACEMENT SENSOR

Monitors penetration with a 25 mm range and 0.01 mm resolution.



DIGITAL CONTROL

The 7″ TFT touch screen displays load and displacement values together.

PISTON AND SPECIMEN

The CBR penetration piston transfers load to the prepared specimen in the mould.



Load cell, displacement sensor and piston



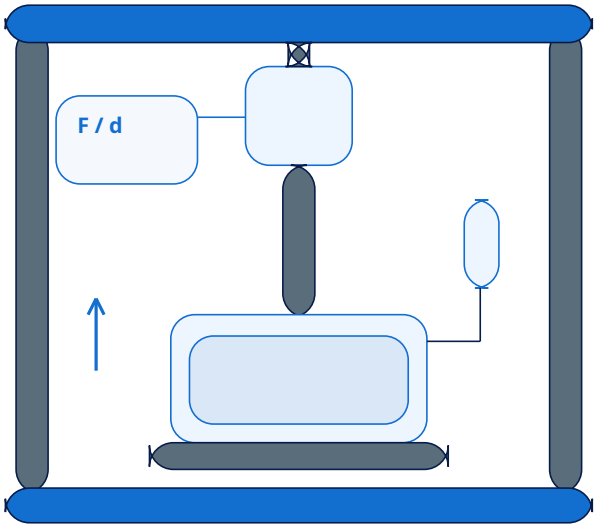
Touch screen and emergency stop button

LT-S0150

Digital Load and Penetration Measurement

Position • Zero • Load • Monitor digital values

LOAD CELL + SENSOR + CBR SPECIMEN



LOAD: 50 kN ELECTRONIC MEASUREMENT

PENETRATION: 25 mm • 0.01 mm

Link load and penetration in the same test record

Evaluate CBR using the applicable method

REPRESENTATIVE CBR TEST ARRANGEMENT • NOT TO SCALE

Align the Specimen

Position the prepared CBR mould. Align the piston with the specimen axis.

Prepare the Sensors

Check sensor contact, measuring range and zero settings.

Load and Monitor

Apply motorized loading. Monitor load and displacement digitally.

The load cell measures applied force while the displacement sensor measures penetration. The digital control unit displays both values together. CBR evaluation uses forces at the penetration levels defined by the selected test method.

Electronic Measurement Arrangement

The 50 kN load cell and 25 mm displacement sensor provide load and penetration information throughout the test. Check sensor connections and zero settings before testing.

Link calibration information and specimen identification to the test records. Evaluate loads at the required penetration levels using the applicable calculation method.

Motorized Movement and Control

The electric motor provides controlled movement of the penetration piston towards the specimen. Upper and lower limit switches stop the motor when a travel limit is reached.

The 7″ TFT touch screen allows measurement values to be monitored during testing. Carry out specimen preparation, conditioning and loading according to the selected test method.

Technical Specifications and Components

LT-S0150 | 50 kN motorized system and electronic load-penetration measurement

Technical Specification	Value / Description
Product Code / Frame	LT-S0150 • Two columns • 50 kN
Load Measurement / Display	50 kN load cell • 7″ TFT touch screen
Displacement Sensor	25 mm range • 0.01 mm resolution
External Dimensions / Approx. Weight	52 × 65 × 116 cm • 100 kg
Power Supply	220-240 V • 50-60 Hz • Single phase
Relevant Methods	EN 13286-47 • ASTM D1883

Component Code	Description
LT-S0150/1	CBR penetration piston
LT-G8035	Load cell • 50 kN
LT-G8040	Displacement sensor • 25 × 0.01 mm

Link Load and Displacement to the Same Test Record

Record specimen identification, load, penetration and test conditions. Check calibration and zero settings; report the CBR result according to the applicable test method.

Laboratory CBR Test Workflow

01
Prepare
Position the prepared CBR specimen.

02
Set
Check sensor contact and zero settings.

03
Load
Monitor digital load and penetration.

04
Evaluate
Calculate CBR and report the result.

Product Page | liyatest.com.tr/en/urun/digital-cbr-test-machine/