# Load Ring CBR Test Machine

LT-S0150/M | Laboratory CBR testing of soil and road materials

Two-column frame • Load ring • Analog penetration measurement




**50 kN**

MAXIMUM LOADING CAPACITY

**0.01 mm**

DISPLACEMENT GAUGE GRADUATION

EN 13286-47 • ASTM D1883

# Photographs and Measuring Components

Load ring, penetration gauge and motorized loading arrangement

The LT-S0150/M determines the CBR of prepared soil and road material specimens. The two-column frame, load ring and analog gauge allow load and penetration data to be monitored together.

**LOAD RING**

The 50 kN load ring supports determination of the force applied during penetration.

**DISPLACEMENT GAUGE**

A 25 mm range and 0.01 mm graduation allow penetration movement to be monitored.




**CONTROL PANEL**

Combines start, travel direction, speed selection and emergency stop controls.

**PENETRATION PISTON**

The LT-S0150/1 piston transfers load to the prepared specimen.



Load ring and analog measuring gauges



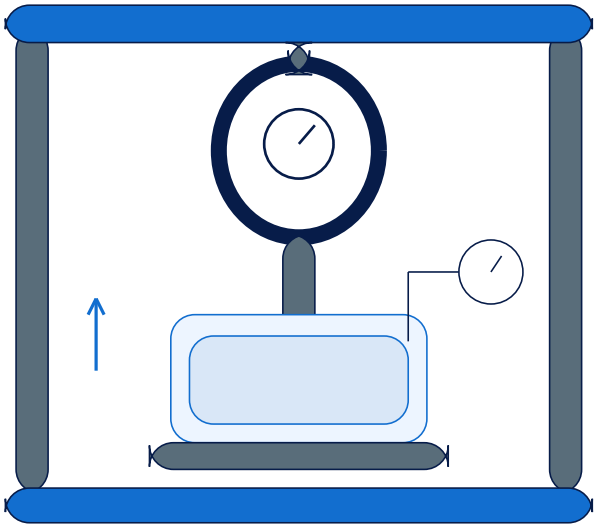

Control panel and emergency stop button

LT-S0150/M

# Controlled Penetration and Load Measurement

Position • Zero • Load • Record load and penetration

**LOAD RING + PISTON + CBR SPECIMEN**



**SPEED OPTIONS: 1.00 / 1.27 mm/min**

**LOAD: 50 kN CAPACITY RING**

**Pair load readings with penetration values**

**Calculate CBR using the applicable test method**

**REPRESENTATIVE CBR TEST ARRANGEMENT • NOT TO SCALE**

### Align the Specimen

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

### Load and Monitor

Load at the required speed. Monitor ring and penetration readings together.

### Evaluate CBR

Evaluate load-penetration records against the method's reference values.

The CBR test evaluates the resistance of prepared material to piston penetration. Convert load ring readings to force using the ring calibration relationship. Record force and penetration together for CBR calculation.

## Mechanical Load Measurement

The load ring deforms elastically under applied force. Convert its indicator reading to load using valid calibration data belonging to the ring.

Check alignment and zero settings before testing. Link ring identification, calibration information and specimen identification to the test records.

## Motorized Movement and Penetration

The motorized loading system offers penetration speeds of 1.00 and 1.27 mm/min. The stated default operating speed is 1.27 mm/min.

Upper and lower limit switches stop movement at the travel limits. An emergency stop button is provided on the panel. Select specimen preparation, conditioning and test speed according to the applicable method.

LT-S0150/M

# Technical Specifications and Components

LT-S0150/M | 50 kN motorized CBR loading system with load ring

| Technical Specification | Value / Description |
|---|---|
| **Product Code / Frame** | LT-S0150/M • Two columns • 50 kN |
| **Penetration Speeds** | 1.00 and 1.27 mm/min • Default 1.27 mm/min |
| **Displacement Gauge** | 25 mm range • 0.01 mm graduation |
| **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 ring • 50 kN |
| **LT-G8040** | Analog displacement gauge • 25 × 0.01 mm |

### Link Ring Calibration with Load Records

Convert ring readings to load using calibration data. Record specimen identification, penetration, load and test conditions; report the CBR result according to the applicable method.

## Laboratory CBR Test Workflow

**01**
**Prepare**
Position the prepared CBR specimen.

**02**
**Set**
Check alignment, zero and speed.

**03**
**Load**
Record load and penetration together.

**04**
**Calculate**
Calculate CBR and report the result.

**Product Page | liyatest.com.tr/en/urun/yuk-halkali-cbr-test-cihazi-kopya/**