Field CBR Test Machine

LT-S0185 | In-situ penetration testing of soil and road materials

Mechanical jack • Load ring • Independent datum bar



50 kN

MECHANICAL LOADING CAPACITY

0.01 mm

DIAL INDICATOR GRADUATION

BS 1377-9 • In-situ CBR evaluation

LT-S0185

Photographs and Field Set Components

Mechanical jack, load ring, extensions and surcharge weights

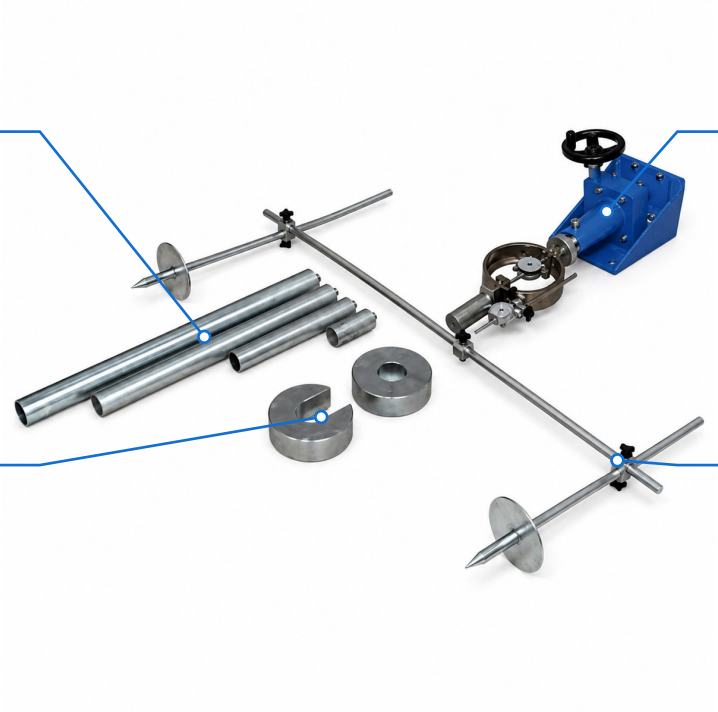
The LT-S0185 is a mechanical CBR set for evaluating soil penetration resistance directly on site. The jack applies load, the ring determines force and the dial indicator monitors piston movement against an independent datum.

EXTENSION SLEEVES

2 × 102 mm, 1 × 305 mm and 1 × 610 mm extensions support adaptation to the field arrangement.

JACK AND LOAD RING

The 50 kN mechanical jack and load ring provide loading and force measurement.

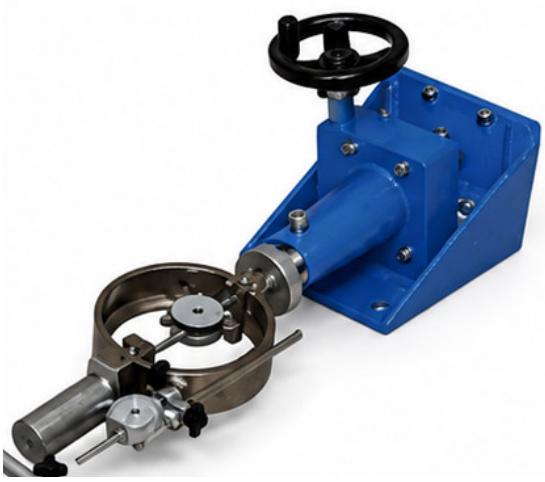


SURCHARGE WEIGHTS

Annular and slotted weight options establish surface loading around the penetration piston.

TWO-LEG DATUM

The datum bar provides an independent reference for penetration measurement.



Mechanical jack, load ring and dial indicator



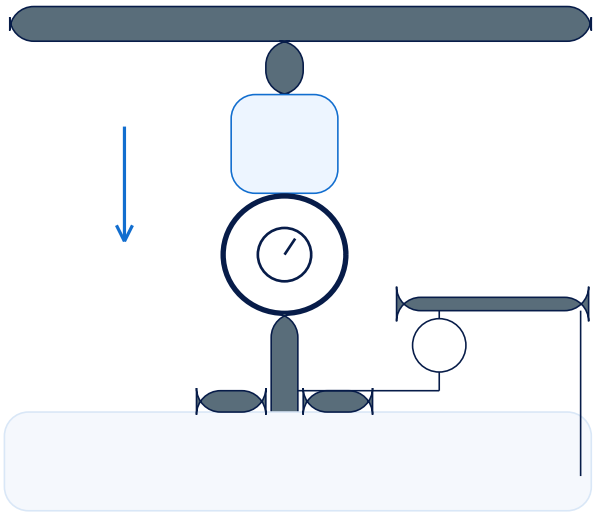
Extension sleeves and surcharge weights

LT-S0185

Controlled Field Load and Penetration

Prepare surface • Set reaction • Adjust datum • Load and read

REACTION + JACK + LOAD RING



LOAD: 50 kN CAPACITY RING

PENETRATION: 30 mm • 0.01 mm GRADUATION

Record load and penetration values together

Evaluate field CBR using the selected method

REPRESENTATIVE IN-SITU CBR ARRANGEMENT • NOT TO SCALE

Align the Arrangement

Align jack, ring and piston vertically beneath a suitable reaction system.

Set the Datum

Position the datum bar stably. Check indicator contact and zero settings.

Load and Read

Advance the jack in a controlled manner. Record loads at the required penetration levels.

The spherical-seat jack reacts against a suitable system to advance the piston into the ground. The load ring measures force and the independently referenced indicator monitors penetration. Convert ring readings to load using calibration data.

Reaction and Independent Measurement

Prepare the loading axis and reaction system for the site conditions. Use extension sleeves to achieve the required working height. Position the datum system as a stable reference independent of loading movement.

The dial indicator has 30 mm travel with 0.01 mm graduations. A magnetic-base holder supports adjustment of its position.

Field Conditions and Conversion

Link the test surface, moisture condition and soil description to the test record. Select surcharge, penetration application and reading intervals according to the method. Field results represent the conditions at the time of testing.

The LT-S0185/7 conversion frame supports a mechanical laboratory CBR arrangement when combined with suitable CBR mould equipment and accessories.

Technical Specifications and Components

LT-S0185 | 50 kN mechanical field CBR system

Model / Component Code	Description / Specification
LT-S0185	240 × 1630 × 230 mm • Approximately 65 kg
LT-S0185/1	Mechanical jack with spherical seat • 50 kN
LT-G8015	Load ring • 50 kN
LT-S0150/1	CBR penetration piston
LT-G8001	30 × 0.01 mm dial indicator • Holder: LT-G8001/1
LT-S0185/2	Extensions • 2 × 102 / 1 × 305 / 1 × 610 mm
LT-S0185/3	Two-leg datum bar
LT-S0185/4	Annular surcharge weight • 4.5 kg
LT-S0185/5 / LT-S0185/6	Slotted surcharge weights • 4.5 / 9 kg
LT-S0185/7	Laboratory conversion frame

Link Ring Calibration with Penetration Records

Convert ring readings to load using calibration data. Link load, penetration, surcharge and soil conditions to the same field point; report results using the applicable method.

In-Situ CBR Test Workflow

01
Prepare
Prepare surface and reaction system.

02
Set Up
Position jack, piston and datum.

03
Load
Record penetration and ring readings.

04
Evaluate
Calculate CBR and report results.

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