Pocket Penetrometer

LT-S0105 | Cohesive soil consistency and approximate strength checks

Manual operation • Spring measurement • Field and laboratory applications



Ø6.35 mm

STANDARD PENETRATION PISTON

0-5 kgf/cm²

APPROXIMATE MEASURING RANGE

Rapid preliminary consistency and approximate unconfined strength assessment

LT-S0105

Photographs and Instrument Components

Penetration piston, measuring scale and manual body

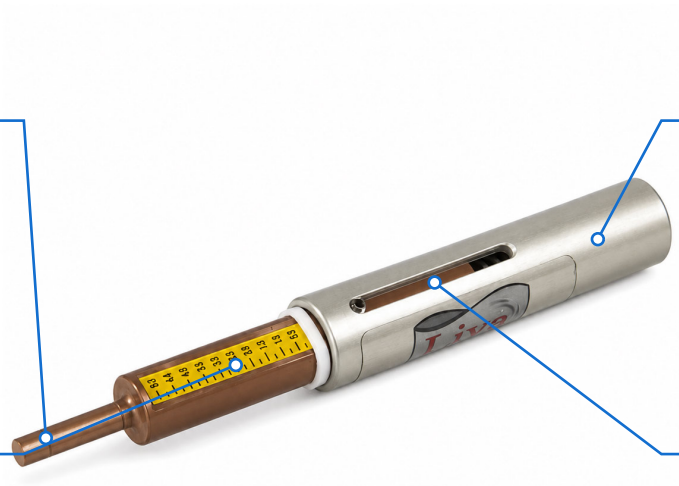
The Pocket Penetrometer provides rapid preliminary information on cohesive-soil consistency and approximate unconfined compressive strength. The piston is pressed into the soil in a controlled way and penetration resistance is evaluated through a spring mechanism.

PENETRATION PISTON

The Ø6.35 mm piston is pressed perpendicular to the specimen surface.

MANUAL BODY

The compact body transfers controlled hand force to the penetration piston.



MEASURING SCALE

Resistance developed during penetration is read on the instrument scale.

SPRING MEASUREMENT

The internal spring mechanism converts soil resistance into an instrument reading.



Penetration piston and measuring scale



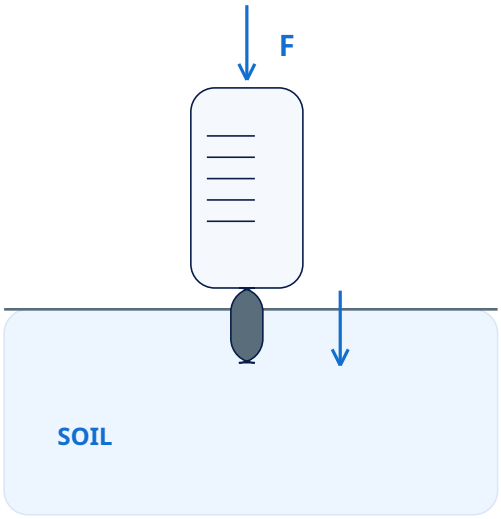
Manual body and measuring arrangement

LT-S0105

Consistency Checks by Penetration Resistance

Prepare surface • Press perpendicular • Read value • Compare test locations

PERPENDICULAR FORCE + PISTON + COHESIVE SOIL



CONTROLLED MANUAL VERTICAL PRESSING

PISTON DIAMETER: Ø6.35 mm

Representative and suitably prepared soil surface

Assess consistency and approximate strength

REPRESENTATIVE POCKET PENETROMETER PRINCIPLE • NOT TO SCALE

Prepare the Surface

Select a clean, flat and representative cohesive-soil surface.

Press and Read

Keep the piston perpendicular. Press to the specified penetration position and read.

Compare and Record

Take readings at suitable different locations. Record them with specimen conditions.

As the piston enters the soil, the specimen resists penetration. The internal spring mechanism converts this resistance into a scale reading. The measurement gives rapid comparative information on consistency and approximate unconfined compressive strength.

Specimen Surface and Test Conditions

Select a suitable surface on clay or similar fine-grained cohesive soil. Moisture, structure, fissures and surface condition can affect the reading. Press the piston perpendicular to the surface in a controlled manner.

Compare readings at different locations and retain specimen identity, position and observed conditions. Consider the influence of coarse particles and visibly disturbed areas.

Compact Manual Operation

The LT-S0105 works without electricity, hydraulics or compressed air. An approximate weight of 0.5 kg and external dimensions of 2 × 2 × 18 cm simplify transport between field locations.

Readings in the approximate 0-5 kgf/cm^2 range support rapid preliminary assessment and consistency comparison. Evaluate results alongside suitable controlled laboratory tests when engineering strength values are required.

LT-S0105

Technical Specifications and Use

LT-S0105 | Manual pocket penetrometer for cohesive soils

Parameter	Description / Specification
Product Code	LT-S0105
Approximate Measuring Range	0-5 kgf/cm²
Penetration Piston Diameter	Ø6.35 mm
Measuring Principle	Soil resistance to piston penetration
Measuring Arrangement	Spring mechanism • Scale reading
Assessment	Consistency and approximate unconfined strength
Application	Field and suitable laboratory specimens
Operation	Manual • No external power required
External Dimensions	2 × 2 × 18 cm
Approximate Weight	0.5 kg

Evaluate Readings Together with Specimen Conditions

Record soil type, moisture, surface condition and location. Readings provide preliminary consistency and approximate strength information; use controlled test data for design.

Pocket Penetrometer Measurement Workflow

01
Prepare
Select a suitable representative surface.

02
Press
Press perpendicular in a controlled way.

03
Read
Read at the specified penetration position.

04
Record
Retain readings with specimen conditions.

Product Page | liyatest.com.tr/en/urun/pocket-penetrometer/