Cone Penetrometer

LT-S0030 | Semi-automatic digital soil penetration measurement

5-second timing • 30° cone • Digital penetration indicator



5 s

PENETRATION PERIOD

0.01 mm

DIGITAL READING RESOLUTION

ISO 17892-12 • Fall-cone liquid limit determination

LT-S0030

Photographs and Measuring Components

Digital indicator, cone, height adjustment and timing control

The LT-S0030 measures cone penetration into a prepared soil specimen over a controlled period. Readings at different moisture contents support liquid limit evaluation of fine-grained soils using the fall-cone method.

DIGITAL INDICATOR

Penetration depth is read digitally with 0.01 mm resolution.

POSITIONING

Height adjustment and locking elements allow the cone to approach the specimen surface.



PENETRATION CONE

A 30° stainless steel cone is supplied as standard; a 60° cone option is also available.

TIMING CONTROL

The timing unit and start button control the 5-second penetration cycle.



Digital penetration indicator and measuring scale



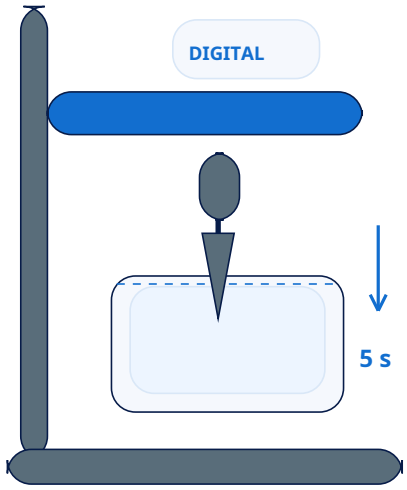
Timing unit and start button

LT-S0030

Penetration Depth and Moisture Content

Prepare • Position • Release for 5 seconds • Measure and evaluate

CONE + SPECIMEN SURFACE + PENETRATION



DURATION: 5 SECONDS

MEASUREMENT: CONE PENETRATION DEPTH

EVALUATION: TOGETHER WITH MOISTURE CONTENT

Determine liquid limit using the applicable method

REPRESENTATIVE FALL-CONE DIAGRAM • NOT TO SCALE

Prepare Specimen and Surface

Place soil in a suitable container. Level the surface and check instrument leveling.

Position and Release the Cone

Bring the tip to the surface. Start the timed 5-second penetration cycle.

Record Depth and Moisture

Read penetration and determine moisture content. Repeat at different moisture contents.

Position the cone tip at the specimen surface and release it for the specified period. Read penetration depth at the end of the cycle. Evaluate readings at different moisture contents with the selected cone and method conditions to determine liquid limit.

Digital Reading and Repeated Tests

The digital indicator has 0.01 mm resolution. Automatic reset and timing control support successive measurements. Resolution describes the indicator's reading increment.

Prepare the specimen surface for each measurement. Record cone position, cone configuration and moisture content; evaluate the test series using the method's acceptance rules.

Cone Options and Applications

The set includes a timing unit, 30° cone and six specimen containers. Separate checking gauges are available for 30° and 60° cones. Select cone geometry and method conditions together.

Liquid limit determination is evaluated under ISO 17892-12. ISO 17892-6 covers undrained shear-strength index testing with an appropriate fall-cone system; use the configuration required for the application.

Technical Specifications and Cone Options

LT-S0030 | Digital measurement, cones, gauges and specimen containers

Technical Specification	Value / Description
Product Code	LT-S0030
Measurement / Duration	Digital penetration • 5 s
Indicator Resolution	0.01 mm
Standard Set	Timing unit • 30° cone • 6 specimen containers
External Dimensions / Weight	260 × 240 × 600 mm • Approximately 10 kg

Component Code	Description
LT-S0030/1	Stainless steel penetration cone • 30°
LT-S0030/2	Checking gauge for 30° cone
LT-S0030/3	Stainless steel penetration cone • 60°
LT-S0030/4	Checking gauge for 60° cone
LT-G0151	Specimen container • Ø75 × 45 mm
LT-G0152	Specimen container • Ø55 × 35 mm

Record Cone, Duration and Moisture Content Together

Verify cone configuration and surface positioning. Record penetration depth, duration and moisture content for each measurement; evaluate using the selected test method.

Cone Penetrometer Test Workflow

01
Prepare
Load the container and level the surface.

02
Position
Bring the cone tip to the specimen surface.

03
Release / Read
Release for 5 seconds and read penetration.

04
Evaluate
Assess moisture content versus penetration.

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