Marshall Stability Test Machine

LT-AS0050 | Automatic stability and flow measurement

50 kN load cell • Motorised loading • TFT touch screen



50 kN

LOAD CELL CAPACITY

50.8 mm/min

CONSTANT LOADING SPEED

EN 12697-34 • ASTM D6927 • AASHTO T245

LT-AS0050

Photograph and Measuring Components

Load cell, displacement sensor, breaking head and TFT display

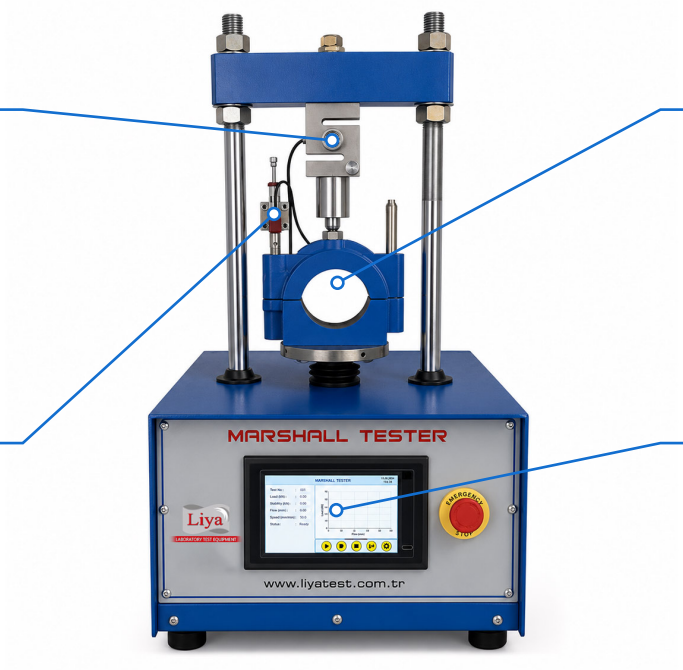
The Marshall stability machine applies load to a prepared asphalt specimen at a controlled speed. Load and displacement are recorded together; the system automatically calculates stability and flow results.

LOAD CELL

The 50 kN sensor measures the force applied to the specimen throughout testing.

BREAKING HEAD

The specimen is loaded inside a Marshall breaking head matched to its diameter.

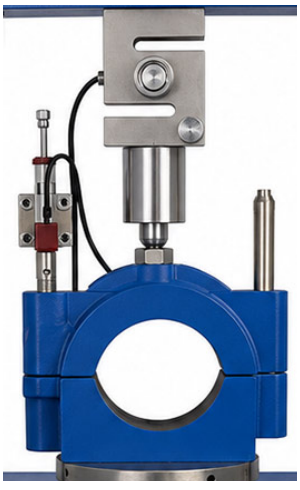


DISPLACEMENT SENSOR

Monitors specimen movement during loading and provides data for flow measurement.

TFT TOUCH SCREEN

Manage test settings and monitor load-time and load-displacement curves.



Load cell, breaking head and displacement sensor



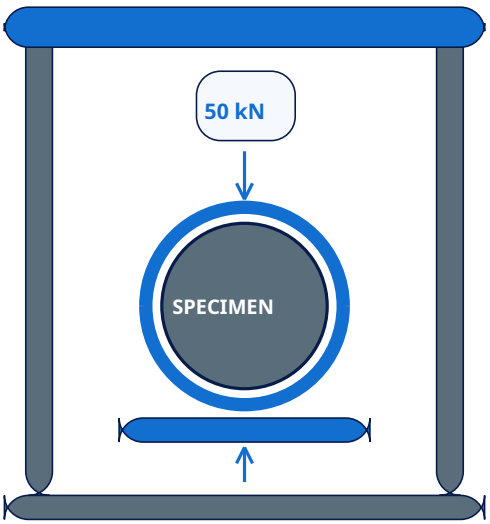
Touch-screen controller and test graph

LT-AS0050

Marshall Stability and Flow Measurement

Condition • Position • Load • Record results

LOAD + DISPLACEMENT: SIMULTANEOUS MEASUREMENT



LOADING SPEED: 50.8 mm/min

STABILITY: MAXIMUM LOAD DURING TEST

FLOW: DEFORMATION AT THE STABILITY POINT

Automatic results from load and displacement data

REPRESENTATIVE LOADING DIAGRAM • NOT TO SCALE

Condition and Position

Condition the specimen as specified. Centre it inside the appropriate breaking head.

Zero and Load

Prepare load and displacement channels. Start automatic constant-speed loading.

Record Results

Check stability and flow values. Save the results with specimen details.

The motorised system raises the lower platen at a constant speed. As the specimen is loaded through the breaking head, the load cell measures force and the displacement sensor monitors movement. Software determines stability and flow and records curves and results.

Evaluating Stability and Flow

Stability is the maximum load carried by the specimen during testing. Flow is the measured deformation at the stability point.

Evaluate conditioning, specimen geometry and required corrections according to the applicable method. Record the specimen ID alongside the results.

Choosing the Head and Test Method

Separate breaking heads are available for Ø100 and Ø150 mm specimens. Match the head to specimen diameter and use the applicable method for larger specimens.

An optional Ø100 mm splitting device supports additional testing. Use EN 12697-23 and the appropriate test parameters for this configuration.

Technical Specifications and Test Accessories

LT-AS0050 | Load and displacement measurement and accessory options

Product Code	Component / Description
LT-AS0050/1	Breaking head for Ø100 mm specimens
LT-AS0050/2	Breaking head for Ø150 mm specimens
LT-G8035	50 kN load cell
LT-G8040	Displacement sensor • 25 mm / 0.01 mm
LT-AS0050/4	Ø100 mm indirect tensile splitting device • Optional

Technical Specification	Value / Description
Loading Speed	50.8 mm/min • Motorised loading
External Dimensions	470 × 610 × 950 mm
Weight	89 kg
Control Display	7-inch colour TFT • 800 × 480 pixels
Graphs	Load-time and load-displacement
Result Management	Automatic calculation, data storage and reporting

Correct Head and Specimen Conditioning

Match the head to specimen diameter. Complete conditioning according to the test method; prepare load and displacement channels before starting the test.

From Specimen to Stability and Flow

01
Condition
Bring the specimen to the specified conditions.

02
Position
Centre in the head and prepare measurement.

03
Load
Run the test at 50.8 mm/min.

04
Record
Save stability, flow and specimen details.

Product Page | liyatest.com.tr/en/urun/marshall-stability-test-machine/