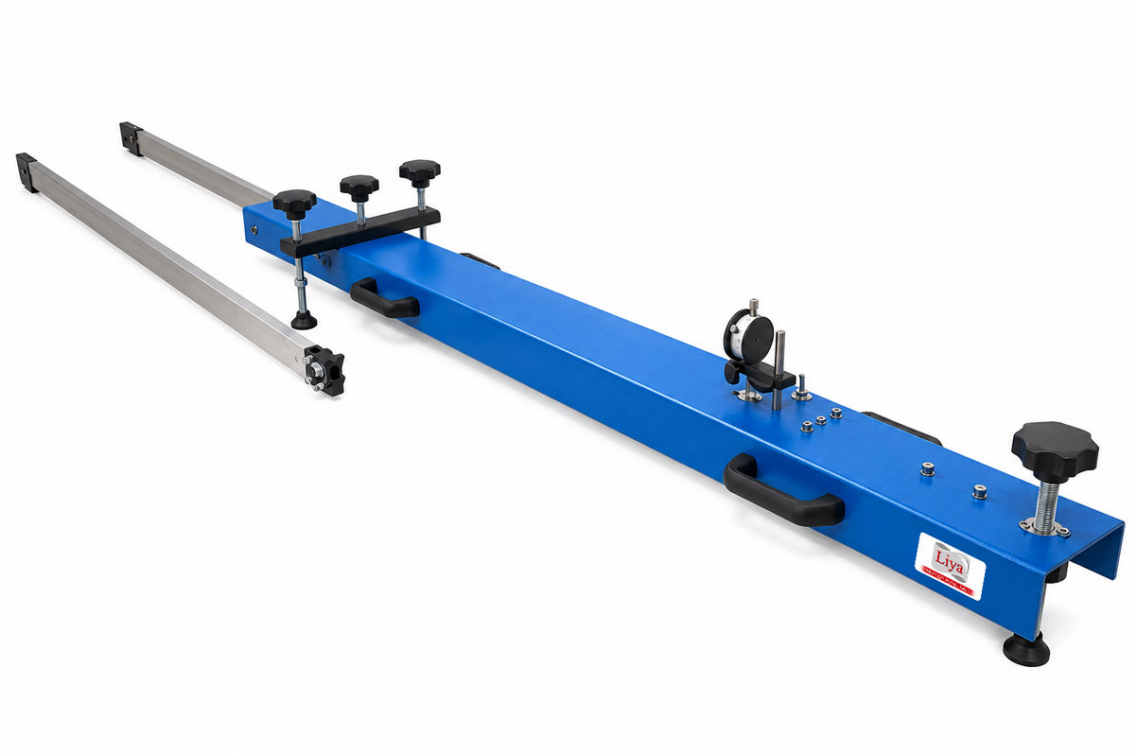
Benkelman Beam Device

LT-AS0900 | Pavement rebound under vehicle wheel loading

Aluminium beam • Dial indicator • Adjustable supports



250 cm

BEAM LENGTH

4:1

BEAM FULCRUM RATIO

AASHTO T256 • CNR N141

LT-AS0900

Photograph and Measuring Components

Beam, dial indicator, support adjustments and carrying handles

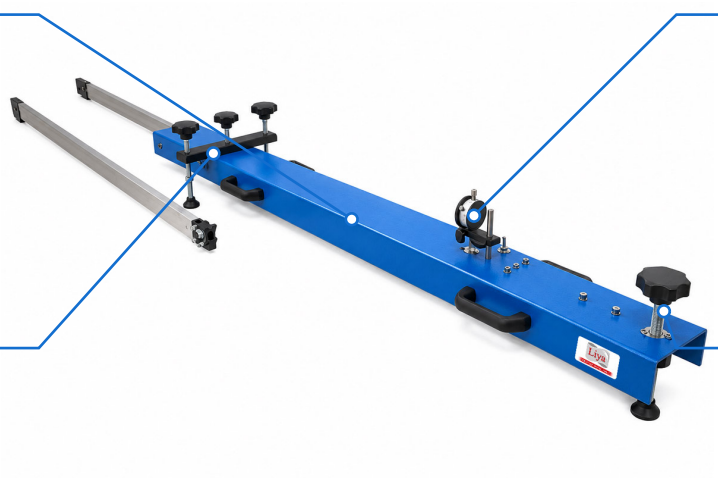
The Benkelman Beam monitors pavement vertical movement and rebound under loaded vehicle wheels. Its mechanical beam transfers measuring-tip movement to the dial indicator for field readings.

BEAM BODY

The 250 cm aluminium beam carries the measuring tip to the test position.

DIAL INDICATOR

Displays pavement rebound as the vehicle moves forward and the load moves away.



SUPPORT ADJUSTMENTS

Adjustable supports help position the instrument level and stable on the pavement.

HANDLING AND POSITIONING

Handles aid field movement; the support foot provides stable positioning during readings.



Dial indicator and mounting arrangement

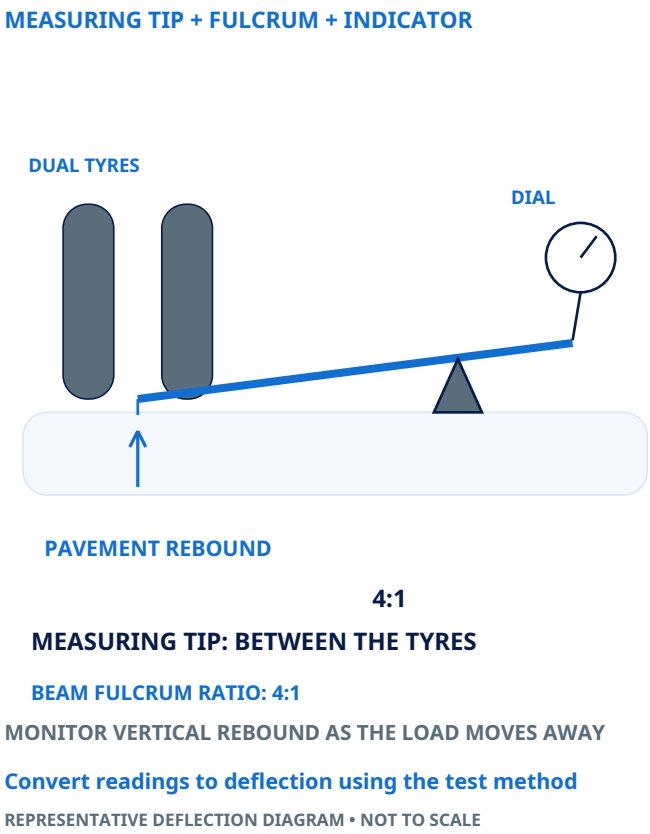


Adjustable supports and levelling controls

LT-AS0900

Rebound Under Wheel Loading

Position • Take initial reading • Move load away • Record results



Position and Level

Place the tip between the dual tyres. Adjust supports and prepare the indicator.

Record Initial Reading

Record the loaded starting reading, test location and operating conditions.

Move Load Away and Read

Move the vehicle as specified. Monitor rebound and record intermediate and final readings.

The measuring tip contacts the pavement between the loaded vehicle tyres. As the vehicle moves forward, load leaves the measuring point and pavement rebounds. The beam transfers vertical movement to the dial; evaluate readings using the fulcrum ratio and test method.

Beam Ratio and Reading Evaluation

The apparatus has a 4:1 fulcrum ratio. Convert indicator readings to deflection using this mechanical ratio and the evaluation steps of the applicable method.

Record initial, intermediate and final readings separately. Assess support movement and required corrections as specified; do not report the raw dial difference directly as the result.

Field Conditions and Transportation

Record test location, vehicle load, tyre conditions and pavement temperature. Position the beam securely and check supports for loading effects and surface irregularities.

Use suitable traffic management during field work. Protect the tip and dial after use and store the apparatus in its wooden carrying case.

Technical Specifications and Measuring Equipment

LT-AS0900 | Mechanical beam and dial measuring system

Technical Feature / Component	Value / Description
Product Code	LT-AS0900
Beam Length	250 cm
Beam Fulcrum Ratio	4:1
Weight	16 kg
Construction	Aluminium alloy
Measuring Indicator	Dial indicator
Positioning	Adjustable supports
Transport Equipment	Wooden carrying case and accessories
Measured Behaviour	Vertical deflection / Rebound under wheel load
Relevant Methods	AASHTO T256 • CNR N141

Stable Supports and Consistent Reading Records

Position the measuring tip correctly, level the supports and check the indicator. Record readings during vehicle movement in the sequence required by the test method.

From Loaded Pavement to Deflection Assessment

01
Position
Set the measuring tip and supports.

02
Read
Record the initial loaded condition.

03
Move
Monitor rebound as the vehicle moves.

04
Evaluate
Apply the test method and beam ratio.

Product Page | liyatest.com.tr/en/urun/benkelman-beam-device/