AUTOMATIC CBR TEST APPARATUS AZA0913

The AZA0913 Automatic CBR Test Apparatus from Azalab is a fully automated, high-precision testing system designed for the determination of California Bearing Ratio (CBR) of soils. The CBR test is a fundamental empirical method used to evaluate the bearing strength of subgrade, sub-base, and base course materials, forming the basis for flexible pavement design in highways, roads, and airfields.

By integrating motorised loading, electronic sensing, and intelligent data acquisition software, the AZA0913 eliminates operator dependency and delivers highly accurate, repeatable, and standards-compliant results, making it ideal for modern geotechnical laboratories and infrastructure projects.

Key Features

Motorised Loading Frame

- Heavy-duty, precision-engineered construction
- Constant penetration rate: 1.25 mm/min
- Bench-top or floor-standing configuration

High-Accuracy Load Measurement

- Load cell capacity: 50 kN / 100 kN
- Accuracy: ±0.5% of full scale or better

High-Resolution Displacement Measurement

- Sensor: LVDT / Linear transducer
- Range: 25 mm
- Resolution: up to 0.001 mm

Advanced Data Acquisition System

- Multi-channel high-speed DAQ
- Continuous real-time monitoring
- USB / Ethernet connectivity

TECHNICAL SPECIFICATION

Feature	Specification
Model	AZA0913
Product Type	Automatic CBR Test Apparatus
Loading Capacity	50 kN / 100 kN
Penetration Speed	1.25 mm/min (constant)
Frame Type	Motorised, bench-top / floor-standing
Load Measurement	Load cell (±0.5% FS accuracy)
Displacement Measurement	LVDT, 25 mm range, 0.001 mm resolution
Data Acquisition	Multi-channel DAQ system
Connectivity	USB / Ethernet
Software	Real-time graph, auto calculation, reporting
Power Supply	230V AC, 50/60 Hz, Single Phase
Application	Laboratory CBR testing

Intelligent Software Suite

- Live load–penetration graph
- Automatic CBR calculation
- Tangent correction for initial concavity
- Data storage and export (Excel/PDF)
- User-friendly interface

Safety & Durability

- Emergency stop and overload protection
- Rugged construction for continuous lab operation

Standards Compliance

- IS 2720 (Part 16):1987 (Reaffirmed 2021)
- ASTM D1883
- BS 1377 (Part 4)