



SUZUKI INSTRUMENTS

Think Reliability. Come To Us

LABORATORY CBR APPARATUS-ELECTRICALLY OPERATED WITH 50 KN PROVING RING-ASTM D1833, AASHTO T193

Compliance Standards

ASTM D1833, AASHTO T193

Significance & Use

This test method is used to evaluate the potential strength of sub-grade, sub-base, and base course material, including recycled materials for use in road and airfield pavements. The CBR value obtained in this test forms an integral part of several flexible pavement design methods.

Salient Features

1. Electrically operated system and motorized operation
2. Robust and compact two column frame with adjustable upper cross beam.
3. Frame capacity - 50 Kn (5000 kg)
4. Two speed machine (1.0mm/min for BS standard and 1.27mm/min for ASTM/EN/AASHTO Standard)
5. Loading and Unloading can be accomplished by UP/DOWN Button or Rotary key available on the front panel.
6. Proving ring is fitted to the upper cross beam to read the stability values.
7. Dial Gauge (Analog indicator) is fitted to the column.
8. Rapid adjustment of the platen is provided, which enables daylight to be taken up quickly and also close control of application of a seating load
9. Compact bench-mounting
10. Aesthetic outer appearance



Supplied Complete with following accessories and parts

1. Load frame, Motorized 5000 Kg (50 KN) capacity, With two rate of travel (1.0 & 1.27mm/min)
2. C.B.R. Mould, 152.4 mm diameter x 177.8 mm high with extension collar & perforated base plate. Made of Mild steel.
3. Penetration Piston, face diameter (49.63 ± 0.13) mm with adjustable bracket and not less than 4 inch (101.6 mm) long
4. Penetration dial gauge - [1 inch travel (25 mm) x 0.0005 in (0.01 mm) divisions] Complete with rack extensions and chisel edge anvil.
5. Perforated plate (Swell plate), 149.23 mm diameter with adjustable stem and lock nut gunmetal
6. Metal tripod stand (Swell tripod) for dial gauges.
7. Displacer block, (150.8 mm) x (61.4 mm) high. Plated steel with detachable handle.
8. Annular metal weight, 2.27 kg (5 lb), 149.23 mm diameter with 53.98 mm diameter central hole.
9. Slotted metal weight, 2.27 kg (5 lb), 149.23 mm diameter with 53.98 mm diameter slot.
10. Rammer 2.6 kg weight with a drop of 310 mm
11. Rammer 4.54 kg having 50.8 mm diameter face, 457.2 mm fall
12. Proving Ring of 10 KN Capacity, fitted with dial gauge and supplied with Calibration report.
13. Filter paper - 150 mm dia - Box of 100
14. With Test / Calibration Certificate.

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LABORATORY CBR APPARATUS - DIGITAL- IS:2720 (PART XVI)

Compliance Standards

IS:2720 (Part XVI)

Physical data:

1. Capacity : 5 tons
2. Power supply : Single phase, 220 volts AC
3. Readout : Digital (flow and load)

Salient features:

No need of separate observation on dial gauge and Proving ring

1. Facility to readout rate of loading in mm/minute.
2. Tare system to nullify initial load
3. The digital LCD display will retain the peak value until it is cleared.
4. Flow value and load on a single screen.
5. Flow value with a least count of 0.01 mm with accuracy of 1%.
6. Load value with a least count of 0.1 kg / 0.001 KN with accuracy of 1%.
7. Back light facility to observe the readings even in the dark.
8. Four line readout showing load, flow, speed, CBR value @ 2.5 mm and 5mm, and load at 0.5 mm, 1 mm, 1.5 mm, 2 mm, 2.5 mm, 3 mm, 3.5 mm, 4 mm, 4.5 mm, 5 mm, 7.5 mm, 10 mm and 12 mm.(scrolling)
9. **Auto calculation of CBR value at 2.5 mm and 5 mm.:**
10. Over load safety at pre decided load.
11. Over travel safety.
12. **Auto reverse to home position on pre set over travel:**
13. Auto internal calibration facility to calibrate load and flow.
14. Confirming to BIS 2720 (Part 16)



Standard accessories supplied:

1. C.B.R. Mould Mild steel, with collar and base plate - 1 No.
2. Penetration Piston - 1 No.
3. Brass Perforated swell Plate - 1 No.
4. Displacer Block - 1 No.
5. Annular and Slotted Metal Weight 2.5 kg - 1 No.
6. Metal Tripod Stand - 1 No.

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FIELD CBR TEST APPARATUS - WITH PROVING RING & DIAL GAUGE*

Used for the in-situ determination of the bearing capacity of soils used in road construction.

Brief construction details :

1. Mechanical screw loading jack, 100 KN capacity with U-bracket and swivel head.
2. Penetration piston of 50 mm diameter - threaded at upper end.
3. Extension rods set consisting of 50 cm and 100 cm
4. Used as spacers between the proving ring and penetration piston.
5. The lengths are machined from steel tubing.
6. Connector set consisting of eight connectors for coupling the penetration piston and proving ring assembly is provided- either directly or through extension pieces.
7. Dial gauge support of seamless pipe construction.
8. It stands 30cm high and 45cm wide at the base.
9. Provided with a quick release screw type clamp capable of sliding and locking anywhere along 2 meter length of the bridge.
10. Supplied with annular metal weight 5 Kg - 250 mm dia, with 53mm dia central hole (1 No.), slotted metal weight 5 Kg - 215mm to 250mm dia with 53mm slot -(2 Nos), Slotted metal weight, 10Kg, 215mm to 250mm dia with 53mm slot - 2Nos.
11. Dial gauge 0.01mm X 25mm travel
12. High sensitivity proving ring, Capacity 50 KN in a nice case. With our own calibration certificate



Field C.B.R. Testing Machine

For On site demonstration, necessary arrangement for Loading has to be provided by the user.

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