

CALIFORNIA BEARING RATIO/UCS/ CONSOLIDATION LOADTRAC II

The California Bearing Ratio (CBR) test is used in evaluating subgrade, subbase and base materials as an aid to the design of pavements. The laboratory test uses a circular piston to penetrate material compacted in a mold at a constant rate of penetration. The CBR is expressed as the ratio of the unit load on the piston required to penetrate 0.1 in. (2.5mm) and 0.2 in. (5.1 mm) of the test material to the unit load required to penetrate a standard material of well-graded crushed stone.

- **Load capacity of 45 kN (10 klf) or 90 kN (20 klf)**
- **Unmatched automation from test start to finish - 2 to 32 times faster results and labor time savings of 30% to 95% vs. manual testing**
- **Flexible design - perform additional testing on the same platform and save money and space in your lab**
- **Full test control and remote monitoring allows you to take your testing on the go - view real-time results, check test quality, and change parameters**
- **Convenient reporting - produce complete, compliant reports instantly or export data for desired manipulation**
- **Designed for consistent and repeatable testing you can be confident in**

Applicable Test Standards

- ASTM D1883
- AASHTO T193
- BS 1377-4
- AS 1289



Standard Fully Automated California Bearing Ratio System

CALIFORNIA BEARING RATIO LOADTRAC II

TECHNICAL SPECIFICATIONS

LOAD CAPACITY
45 (10 klf) or 90 kN (20 klf)

MOTOR
Micro-stepper system with built-in controls

RATE OF DISPLACEMENT
0.00003 to 25 mm per minute
(0.000001 to 1.0 in per minute)

TRAVEL
Built-in displacement transducer with 76 mm (3 in) range and 0.0013 mm (0.00005 in) resolution

POWER
110/220 V, 50/60 Hz, 1 phase

DIMENSIONS
464 x 546 x 1206 mm (18 x 21.5 x 47.5 in)

WEIGHT
55 kg (120 lbs)

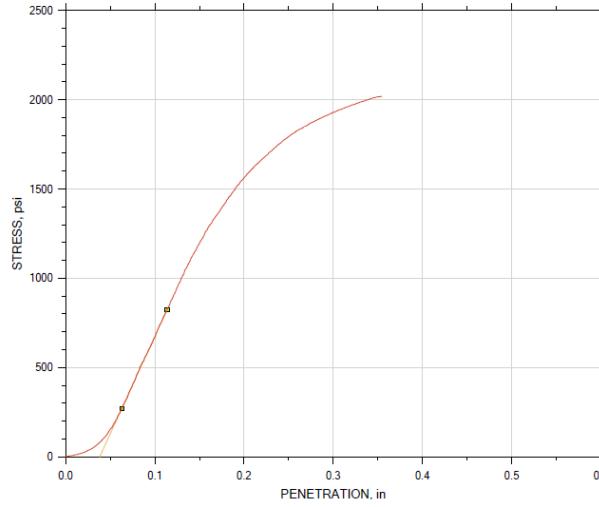
INCLUDED
- Geo-NET network card and cable to link to PC
- CBR software module to automatically run and report tests

ACCESSORIES
- CBR piston and mold

WARRANTY
- 12 month warranty; extended warranties available

Typical Test Output (example)

CALIFORNIA BEARING RATIO TEST REPORT

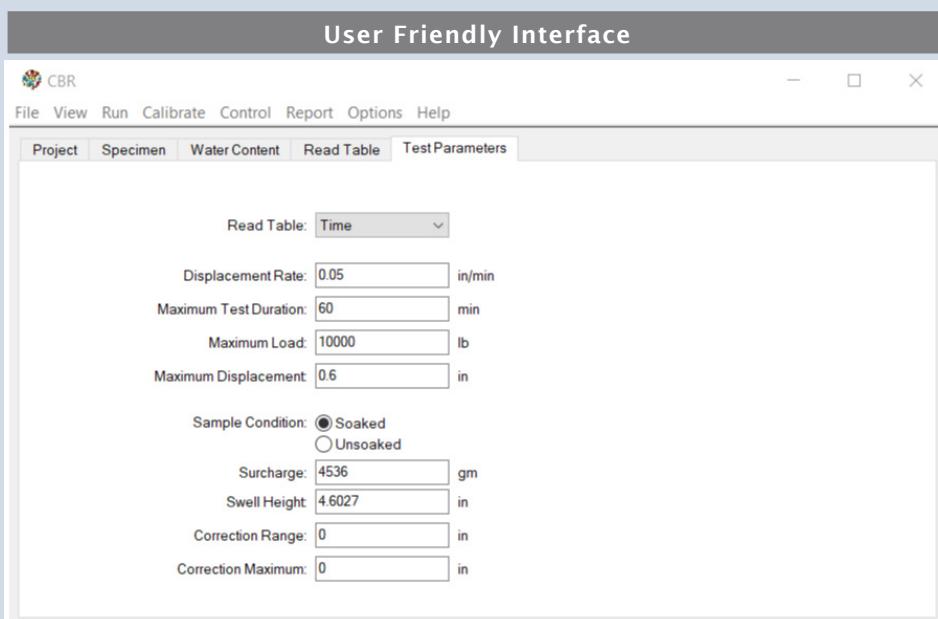


California Bearing Ratio			
at 0.1 in: 109	at 0.3 in: 105	at 0.5 in: N/A	
at 0.2 in: 117	at 0.4 in: N/A		
Sample Height, in	4.58		
Sample Area, in ²	28.274		
Sample Volume, ft ³	0.07494		
Sample Mass, gm	4796.8		
Sample Condition	Soaked		
Swell, %	0.50		
Surcharge, gm	4536		
Void Ratio	0.32		
Wet Unit Weight, pdf	141.11		
Dry Unit Weight, pdf	125.72		

Water Content	Before	After	Average	Soaked
Tare ID	2521	2420		8032
Tare Mass, gm	8.12	8.25		8.29
Mass Tare + Wet Soil, gm	377.62	254.86		276.71
Mass Tare + Dry Soil, gm	347.21	221.72		249.07
Water Content, %	8.97	15.52	12.25	11.48

	Project: CBR Boring No.: Composite Sample No.: CD/SC-SB-44 Test No.: CBR-7 Description: Dry, reddish brown silty sand Remarks: Target Compaction: 101% of Maximum Dry Density (128.5 pdf) at Optimum Moisture Content (9.0%)	Location: Place, USA Checked By: xy Test Date: 03/01/2018 Depth: 0-4 ft Sample Type: remolded Elevation: ---	Project No.: CBR123 8032 Tested By: ab Sample ID: CD/SC-SB-44 Test Date: 03/01/2018 Depth: 0-4 ft Sample Type: remolded Elevation: ---
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User Friendly Interface



The software interface includes a menu bar (File, View, Run, Calibrate, Control, Report, Options, Help) and a toolbar with buttons for Project, Specimen, Water Content, Read Table, and Test Parameters. The main window displays test parameters and results:

Read Table: Time
Displacement Rate: 0.05 in/min
Maximum Test Duration: 60 min
Maximum Load: 10000 lb
Maximum Displacement: 0.6 in
Sample Condition: <input checked="" type="radio"/> Soaked <input type="radio"/> Unsoaked
Surcharge: 4536 gm
Swell Height: 4.6027 in
Correction Range: 0 in
Correction Maximum: 0 in