

California Bearing Ratio (CBR) System

Related Standards

British	BS1377-4 : 1990
American	ASTM D1883-16
Australian	AS1289.6.1.1 : 2014

The California Bearing Ratio (CBR) test is a penetration test for evaluation of the load-bearing capacity of soils used for building roads.

The CBR System consists of a CBR sample setup with a TriSCAN Pro Load Frame for data logging.

The TriSCAN Pro is a stepper motor controlled digital 50 kN machine manufactured to a very high standard, ideally suited to laboratory CBR testing.

The microprocessor based design provides accurate speed control, and a rapid platen adjustment speed is also available.

The necessary accessories are all manufactured to a very high standard in a non-corrosive material.

Features

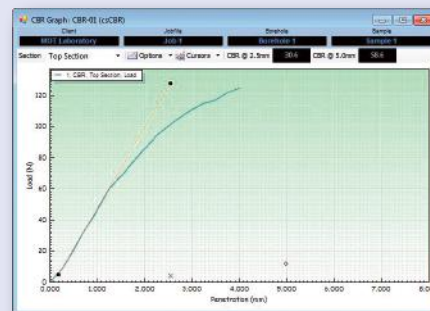
- Integrated 7" Touchscreen Colour Display for Standalone use without PC Control if required
- High Speed ARM Processor
- User friendly software for partial or complete automation
- Inbuilt data logging
- Live display of Load and Displacement measurements
- On-board data logging with large data storage (up to 14 million records) using SD card (8GB standard)
- Auto reverse from limit switch activation

VJT Clisp Studio csCBR software

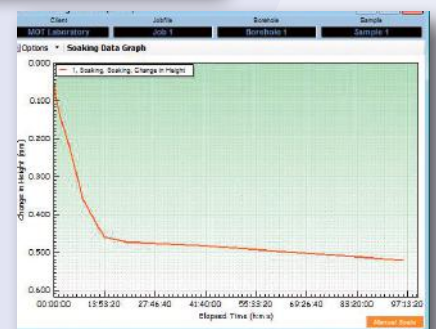
- Software Assistant for easy Test setup
- User defined data logging intervals
- Optional Soaking Stage
- Automated test control
- Display of live data in Tabular or View format
- Display of live data in Graphical format
- Data export to Excel & test script export & import
- Easily viewed results



CBR System Setup



CBR Results Stage



Graph CBR Soak Stage

Section	Top Section	Time T (hr:min)	Penetration Input P_p (mm)	Load Input N_p (N)	Load N (N)	Penetration L (mm)
1		00:00:00	10.000	410	0	0.000
2		00:00:15	10.250	418	8	0.250
3		00:00:30	10.500	430	20	0.500
4		00:00:45	10.750	444	34	0.750
5		00:01:00	11.000	455	46	1.000
6		00:01:15	11.250	470	60	1.250
7		00:01:30	11.500	478	68	1.500
8		00:01:45	11.750	487	77	1.750
9		00:02:00	12.000	496	88	2.000
10		00:02:15	12.250	504	96	2.250

CBR Results Stage Table

California Bearing Ratio (CBR) System

Accessories



Ordering Information

VJT5000-P	TriSCAN Pro 50 kN Advanced Frame
VJT-csCBR	Clisp Studio CBR software

Specifications

Load capacity	50 kN
Speed Range	0-50.8 mm/min
Fast Platen Adjustment Speed	50 mm/min
Vertical Clearance	1000 mm
Horizontal Clearance	380 mm
Platen Diameter	158 mm
Power Supply	90-240V, 50/60Hz, 1ph
Dimensions (w x d x h)	480 mm x 445 mm x 1490 mm
Weight	100 kg

Load and Penetration Measurement

Penetration	Load	Bracket/Adaptor
VJT0110-M - Dial Gauge 25 mm x 0.01 mm	VJT0223 30 kN Load Ring	Not required
VJT0271 - LSCT Displacement Transducer	VJTS0360 2.5 kN S-Beam Load Cell	VJT0287B for S-Beam and LSCT
	VJTS0361 5 kN S-Beam Load Cell	
	VJTS0362 10 kN S-Beam Load Cell	VJT0285B for S-Beam and LSCT
	VJTS0363 20 kN S-Beam Load Cell	
	VJTS0365 50 kN S-Beam Load Cell	

Accessories Ordering Information

	BS	ASTM
Adjustable Plunger Head (3'sq)	VJT0715	VJT0715
Stabilising Bar	VJT0716	VJT0716
CBR Mould Body	VJT0720	VJT0740
CBR Extension Collar	VJT0721	VJT0741
CBR Cutting Collar	VJT0725	VJT0742
CBR Perforated Base Plate	VJT0723	VJT0743
CBR Solid Base Plate	VJT0722	VJT0744
Locking C-spanner (2 required)	VJT0724	-
Base Plate Tool	VJT0726	-
Static Compaction Plug	VJT0731	
Static Compaction Plug/Spacer		VJT0745
Surcharge Weight complete ring (2 kg)	VJT0732	-
Surcharge Weight complete ring (10 lbs)	-	VJT0746
Surcharge Weight split ring (2.kg)	VJT0733	-
Surcharge Weight split ring (5 lbs)	-	VJT0747
Base Plate with penetration dial gauge arm	VJT0717	VJT0717
Swell Tripod	VJT0735	VJT0735
Swell Plate	VJT0734	VJT0734
Swell Dial Gauge	VJT0110-M	VJT0110-M
Compaction Rammer (2.5 kg)	VJT0711	-
Compaction Rammer (5.5 lb)	-	VJT0712
Compaction Rammer (4.5 kg)	VJT0710	-
Compaction Rammer (10 lb)	-	VJT0713