

CBR TEST MACHINE WITH LOAD RING

STANDARDS: EN 13286-47, BS 1377:4, ASTM D1883, AASHTO T193, NF P94-078, UNI CNR 10009

CBR Test Machine is designed for performing laboratory evaluation of the CBR value of highway sub-bases and sub-grade and determination of the strength of cohesive materials.

The device is composed of a robust and compact two column frame with adjustable upper cross beam.

The CBR Test Machine designed to load the penetration piston into the soil sample at a constant rate to measure the applied load and piston penetration at predetermined intervals.

The frame has 50 kN capacity. Two test speeds are provided 1.0 mm/min for BS and 1.27 mm/min. for ASTM/EN/AASHTO Tests.

Loading and unloading are down from the front panel by UP/DOWN buttons.

For safety, the up and down travel of the lower platen is limited the use of limit switches.

The measuring system consists of a 50 kN capacity Load Ring fitted to the upper cross beam to read stability values and the 30 x 0.01 mm Analog Dial Indicator fitted to the column.

Supplied complete with 50 kN Load Ring with 0,01 mm resolution Analog Dial gauge, 30 x 0,01 mm Analog Dial Indicator and CBR Penetration Piston.

Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)	Power Supply
HR-S5005	CBR Test Machine	47x61x115	80	220 V, 50 Hz, 1 ph
HR-S5005/60Hz	CBR Test Machine	47x61x115	80	220 V, 60 Hz, 1 ph

Spare Parts & Accessories:

Product Code	Product Name
HR-S5000/1	CBR Penetration Piston
HR-G5003	Load Ring, 50 kN capacity with 0,01 mm resolution Analog Dial gauge
HR-G0876	Analog Dial Indicator, 30 x 0,01 mm

CBR MOULD AND ACCESSORIES

STANDARDS: ASTM D1883, AASHTO T193, EN 13286-47, 13286-4, BS 1924:2, BS 1377:4

This method has been developed by the California State Highway Department, and is now accepted by almost all the International Standards in force. The test is aimed to the evaluation of the bearing capacity of soil for flexible pavement design in road construction. The compaction test can be performed both with the manual rammers and the automatic compactor.

The CBR equipment, steel made and plated against corrosion is available in different versions according to the various Standards in force.

Technical Specifications for ASTM D1883, AASHTO T193 Models;

CBR Mould Set is supplied complete with Extension Collar and Perforated Base Plate.

The other accessories should be ordered separately.

Technical Specifications:

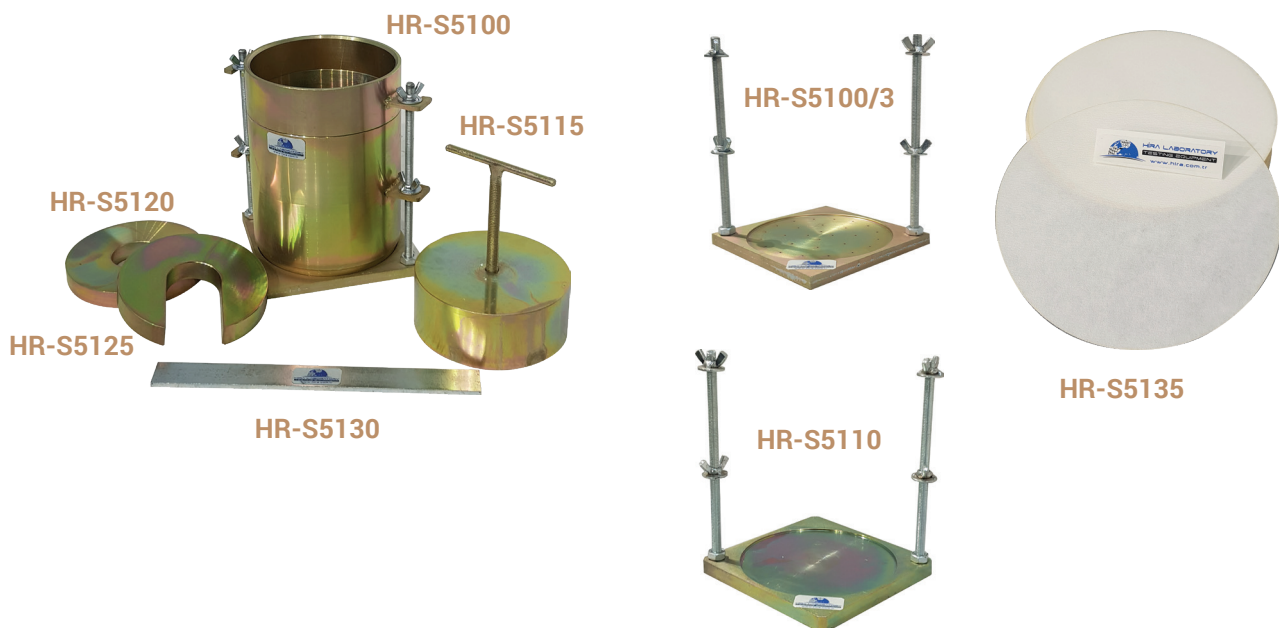
Product Code	Product Name	Standard	Dimensions (mm)	Weight (kg)
HR-S5100	CBR Mould Set	ASTM, AASHTO	200x200x450	8



HR-S5005

Spare Parts & Accessories for ASTM D1883, AASHTO T193 Models;

Product Code	Product Name	Standard	Dimensions (mm)	Weight (kg)
HR-S5100/1	CBR Mould	ASTM, AASHTO	Ø 152.4 (6") x 177.8 (7")	4,5
HR-S5100/2	Extension Collar	ASTM, AASHTO	Ø 152.4 (6") x 50 (2")	1,5
HR-S5100/3	Perforated Base Plate	ASTM, AASHTO	200x200x100	2
HR-S5110	CBR Solid Base Plate	ASTM, AASHTO	200x200x100	3,4
HR-S5115	Spacer Disc with 'T' Handle	ASTM, AASHTO	Ø 150.8 x 61.4	8,5
HR-S5120	Annular Surcharge Weight	ASTM, AASHTO	200x200x100	2,27
HR-S5125	Slotted Surcharge Weight	ASTM, AASHTO	200x200x100	2,27
HR-S5130	Straight edge	---	300x30x5	1
HR-S5135	Filter Paper. No.5 x Ø 150 mm. Pack of 100.	ASTM, AASHTO	200x200x20	0,1
HR-S5140	Filter Screen, 150 µm mesh. Ø 144 mm.	ASTM, AASHTO	150x150x20	1



Technical Specifications for EN 13286-47 Models;

CBR Mould Set is supplied complete with Extension Collar and Solid Base Plate.

The other accessories should be ordered separately.

Technical Specifications:

Product Code	Product Name	Standard	Dimensions (mm)	Weight (kg)
HR-S5200	CBR Mould Set	EN 13286-47	200x200x180	8,9

Spare Parts & Accessories for EN 13286-47 Models;

Product Code	Product Name	Standard	Dimensions (mm)	Weight (kg)
HR-S5200/1	CBR Mould (B Type Modified Proctor Mould)	EN 13286-47	Ø 150 x 120	5,3
HR-S5200/2	Extension Collar	EN 13286-47	Ø 150 x 500	1,5
HR-S5200/3	CBR Solid Base Plate	EN 13286-47	200x200x100	3,4
HR-S5210	Perforated Base Plate	EN 13286-47	200x200x100	2
HR-S5215	Spacer Disc with 'T' Handle	EN 13286-47	Ø 149,5 x 36	8,5
HR-S5220	Annular Surcharge Weight	BS, EN 13286-47	200x200x100	2
HR-S5225	Split Surcharge Weight	BS, EN 13286-47	200x200x100	2
HR-S5235	Filter Paper. Coarse, Ø 148 mm. Pack of 100.	BS, EN 13286-47	200x200x20	0,1
HR-S5130	Straight edge	---	300x30x5	1

Technical Specifications for EN 13286-4, BS 1924:2, BS 1377:4 Models;

CBR Mould Set is supplied complete with Extension Collar and Solid Base Plate.

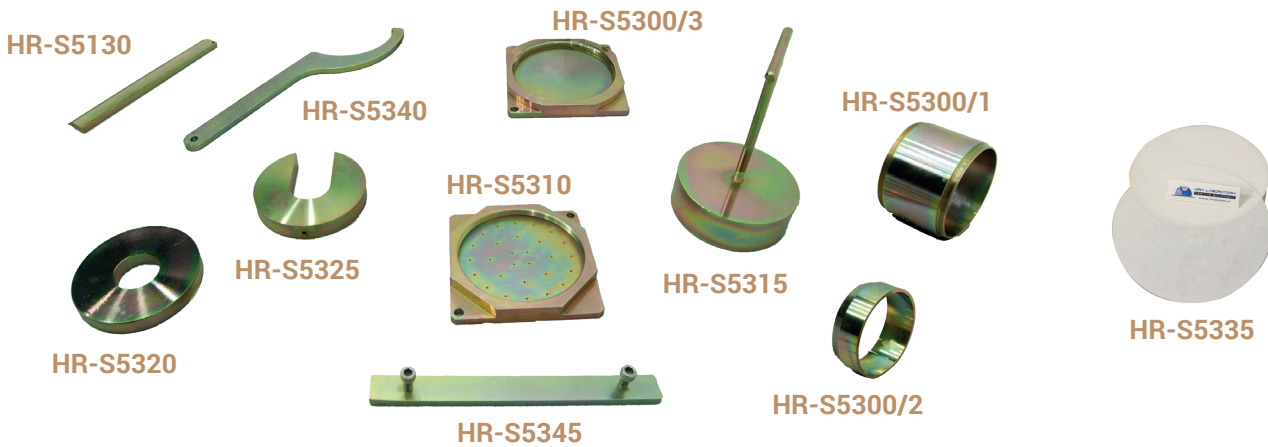
The other accessories should be ordered separately.

Technical Specifications:

Product Code	Product Name	Standard	Dimensions (mm)	Weight (kg)
HR-S5300	CBR Mould Set	BS, EN 13286-4	200x200x450	8,5

Spare Parts & Accessories for EN 13286-4, BS 1924:2, BS 1377:4 Models;

Product Code	Product Name	Standard	Dimensions (mm)	Weight (kg)
HR-S5300/1	CBR Mould	BS, EN 13286-4	Ø 152 x 127	4,9
HR-S5300/2	Extension Collar	BS, EN 13286-4	Ø 152 x 50	1,5
HR-S5300/3	CBR Solid Base Plate	BS, EN 13286-4	200x200x100	3,4
HR-S5310	Perforated Base Plate	BS, EN 13286-4	200x200x100	2
HR-S5315	Compaction Plug with 'T' Handle	BS, EN 13286-4	Ø 150 x 50	8,5
HR-S5320	Annular Surcharge Weight	BS, EN 13286-4	200x200x100	2
HR-S5325	Split Surcharge Weight	BS, EN 13286-4	200x200x100	2
HR-S5335	Filter Paper. No.1 x Ø 150 mm. Pack of 100.	BS, EN 13286-4	200x200x20	0,1
HR-S5340	C- Spanner for HR-S5300, 2 pieces	---	200x300x100	1
HR-S5345	Assembly Tool for Base Plate for HR-S5300	---	350x30x15	1
HR-S5130	Straight edge	---	300x30x5	1



SWELLING

Placed on top of the soil sample to enable monitoring of swelling.

The Swell Test Set consists of Swell Plate with adjustable stem, Dial Indicator (any Dial Gauges are listed below can be chosen) and Tripod for mounting swell dial indicator in position on CBR Mould Collar.

CBR Soaking Tank has two models as 6 or 15 pieces CBR Mould capacity.

Swell Test Set and CBR Soaking Tank should be ordered separately for swelling test.

Technical Specifications for Dial Indicators:

Product Code	Product Name
HR-G0875	Analog Dial Indicator, 10 x 0,01 mm
HR-G0876	Analog Dial Indicator, 30 x 0,01 mm
HR-G0877	Digital Dial Indicator, 12,7 x 0,01 mm
HR-G0878	Digital Dial Indicator, 25 x 0,01 mm
HR-G0879	Digital Dial Indicator, 12.7 x 0,001 mm
HR-G0880	Digital Dial Indicator, 25 x 0,001 mm

HR-S5415
with
HR-S5400
HR-S5410
HR-G0875



Technical Specifications for Swelling:

Product Code	Product Name	Dimensions (cm)	Weight (kg)
HR-S5400	Swell Plate	18x18x16	0,5
HR-S5410	Tripod	20x20x30	1
HR-S5415	CBR Soaking Tank, 6 sample capacity	50x70x40	3
HR-S5416	CBR Soaking Tank, 15 sample capacity	77*110*64	5

PLATE BEARING TEST SET

STANDARDS: ASTM D1194, 1195, 1196, BS 1377:9

This test is performed for the determination of the bearing capacity of a soil in-situ on road constructions, foundations, road subgrades, and airport and highway pavements.



A wide range of models are available.

HR-S5630 with All Accessories

300 kN capacity Plate Bearing Test Set consists of a 300 kN capacity Piston Assembly and Hydraulic Hand Pump, Analog Manometer, 2.4 m long Datum Bar, 3 pcs. 30 mm travel x 0.01 mm Analog Dial Gauges with Dial Gauge Holders, Ø12"(305 mm) and Ø18"(457 mm) Loading Plates.

500 kN capacity Plate Bearing Test Set Set consists of a 500 kN capacity Piston Assembly and Hydraulic Hand Pump, Analog Manometer, 2.4 m long Datum Bar, 3 pcs. 30 mm travel x 0.01 mm Analog Dial Gauges with Dial Gauge Holders, Ø24"(610 mm) and Ø30"(762 mm) Loading Plates.



HR-S5630

1000 kN capacity Plate Bearing Test Set Set consists of a 1000 kN capacity Piston Assembly and Hydraulic Hand Pump, Analog Manometer, 2.4 m long Datum Bar, 3 pcs. 30 mm travel x 0.01 mm Analog Dial Gauges with Dial Gauge Holders, Ø24"(610 mm) and Ø30"(762 mm) Loading Plates.

300 kN capacity Plate Bearing Test Set Set consists of a 300 kN capacity Piston Assembly and Hydraulic Hand Pump, Pressure Transducer, Battery operated digital readout unit, 2.4 m long Datum Bar, 3 pcs. 30 mm travel x 0.01 mm Analog Dial Gauges with Dial Gauge Holders, Ø12"(305 mm) and Ø18"(457 mm) Loading Plates.

500 kN capacity Plate Bearing Test Set Set consists of a 500 kN capacity Piston Assembly and Hydraulic Hand Pump, Pressure Transducer, Battery operated digital readout unit, 2.4 m long Datum Bar, 3 pcs. 30 mm travel x 0.01 mm Analog Dial Gauges with Dial Gauge Holders, Ø24"(610 mm) and Ø30"(762 mm) Loading Plates.



HR-S5600

1000 kN capacity Plate Bearing Test Set Set consists of a 1000 kN capacity Piston Assembly and Hydraulic Hand Pump, Pressure Transducer, Battery operated digital readout unit, 2.4 m long Datum Bar, 3 pcs. 30 mm travel x 0.01 mm Analog Dial Gauges with Dial Gauge Holders, Ø24"(610 mm) and Ø30"(762 mm) Loading Plates.

Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)
HR-S5600	Plate Bearing Test Set, 300 kN capacity	85x33x60	110
HR-S5610	Plate Bearing Test Set, 500 kN capacity	90x33x60	130
HR-S5620	Plate Bearing Test Set, 1000 kN capacity	95x33x60	150
HR-S5630	Plate Bearing Test Set with Digital Readout Unit, 300 kN capacity	85x33x60	110
HR-S5640	Plate Bearing Test Set with Digital Readout Unit, 500 kN capacity	90x33x60	130
HR-S5650	Plate Bearing Test Set with Digital Readout Unit, 1000 kN capacity	95x33x60	150

Technical Specifications:

Product Code	Product Name	Dimensions (mm)	Weight (kg)
HR-S5600/1	Piston Assembly, 300 kN capacity	---	---
HR-S5610/1	Piston Assembly, 500 kN capacity	---	---
HR-S5620/1	Piston Assembly, 1000 kN capacity	---	---
HR-G9000	Hydraulic Hand Pump, 700 bar	---	---
HR-G9000/1	High Pressure Hose, 1 m	---	---
HR-G9010	Analog Manometer	---	---
HR-S5600/2	Datum Bar, 2.4 m long	---	---
HR-G0876	Analog Dial Indicator, 30 x 0,01 mm	---	---
HR-G0885	Dial Gauge Holder	---	---
HR-S5654	Pressure Transducer	---	---
HR-S5655	Battery Operated Digital Readout Unit	---	---
HR-S5600/3	Loading Plate, Ø 12"(305 mm)	305	15
HR-S5600/4	Loading Plate, Ø 18"(457 mm)	457	30
HR-S5600/5	Loading Plate, Ø 24"(610 mm)	610	60
HR-S5600/6	Loading Plate, Ø 30"(762 mm)	762	95
HR-S5656/1	Extension Rods. Pack of 16.	Ø 12x250	---
HR-S5656/2	Top End Plates. Pack of 4.	Ø 50	---
HR-S5656/3	Columns. 2 pieces.	Ø 150x250	---
HR-S5656/4	Column	Ø 150x500	---
HR-S5657/1	Mild Steel Plate, Square	750x750x25	---
HR-S5657/2	Mild Steel Plate, Square	600x600x25	---
HR-S5657/3	Mild Steel Plate, Square	450x450x25	---
HR-S5657/4	Mild Steel Plate, Square	300x300x25	---
HR-S5657/5	Mild Steel Plate, Round	Ø 750x25	---
HR-S5657/6	Mild Steel Plate, Round	Ø 500x25	---