HIRA TESTING EQUIPMENT



DYNAMIC CONE PENETROMETER

STANDARDS: ASTM D6951

This portable hand operated apparatus is used for the rapid in-situ measurement of the structural properties of existing road pavements constructed with unbound materials.

The DCP Penetrometer results can be compared and interpreted with CBR (California Bearing Ratio) as per sperimental Kleyn 1982 studies.

Continuous measurements can be made down to a depth of approximately 800 mm or, when extension shafts are used, to a recommended maximum depth of 2 m.

Dynamic cone penetrometer, consists of;

Drop sliding hammer 8 kg weight dropping mass trough a height of 575 mm, Penetration rod,

2 pcs. 60° cone,

Anvil with driving rod,

Metal plate coupling for ruler,

Ruler reading plate,

Extension rod (430 mm),

Extension rod (994 mm),

Spanners, 13 mm and 17 mm,

A bottle of adhesive,

Steel Ruler,

All contained in a wooden carrying case.

HR-S6000

Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)
HR-S6000	Dynamic Cone Penetrometer	120x35x20	30

Spare Parts & Accessories:

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Product Code	Product Name		
HR-S6000/1	Drop sliding hammer 8 kg		
HR-S6000/2	Spare 60° cone		
HR-S6000/3	Anvil with driving rod		
HR-S6000/4	Extension rod. 430 mm		
HR-S6000/5	Extension rod. 994 mm		
HR-S6000/6	Penetration rod		
HR-S6000/7	Metal plate coupling for ruler		
HR-S6000/8	Ruler reading plate		



HR-S6000

SURFACE SOIL SAMPLERS

STANDARDS: ASTM D2937; CNR No.22; BS 1377:9

Used to take field samples of compacted fill or undisturbed soils and to evaluate density of compaction samples as the ground surface.

Steel made, galvanized against corrosion.

HR-S6130

The ASTM/CNR version, two models are available.

Both of Surface Soil Sampler (Core Cutter) Sets (\emptyset 3" and \emptyset 4") consists of a drive head, 5 kg drive hammer and a thin wall sampling tube. 5 kg sliding weight drop hammer makes a free-fall on to the driving head which is placed on top of the sampling tube.

The BS version, two models are available.

100 mm Surface Soil Sampler (Core Cutter) Set consists of a driving dolly, 13,5 kg driving rammer and \emptyset 100 mm x 130 mm high core cutter.

150 mm Surface Soil Sampler (Core Cutter) Set consists of a driving dolly, 16 kg driving rammer and \emptyset 150 mm x 180 mm high core cutter.



332



Technical Specifications:

Product Code	Product Name	Driving Rammer (kg)
HR-S6110	Surface Soil Sampler Set, Ø 100 mm, BS	10
HR-S6120	Surface Soil Sampler Set, Ø 150 mm, BS	16
HR-S6130	Surface Soil Sampler Set, Ø 3", ASTM/CNR	5
HR-S6140	Surface Soil Sampler Set, Ø 4", ASTM/CNR	5

Spare Parts & Accessories:

Product Code	Product Name
HR-S6110/1	Sampling Tube Ø 100 mm x 130 mm, BS
HR-S6120/1	Sampling Tube Ø 150 mm x 180 mm, BS
HR-S6130/1	Sampling Tube Ø 3" x 70 mm, ASTM/CNR
HR-S6140/1	Sampling Tube Ø 4" x 127 mm, ASTM/CNR



SOIL PROCTOR PENETROMETER

STANDARDS: ASTM D1558

Used to determine in field the moisture-penetration resistance relationship of fine grained soils. Spring load scale 0-55 Kg, in 1 kg subdivisions, with direct maximum value reading in Kg. on the sliding rod.

Complete with 9 interchangeable stainless steel needles Ø 4,52 - 5,23 - 6,40 - 9,07 - 12,83 - 16,54 - 20, 22 - 24,79 - 28,55 mm, accessories, carrying case.

Technical Specifications:

Product Code	Product Name	Dimensions (mm)	Weight (kg)
HR-S6200	Soil Proctor Penetrometer Set	550X250X80	8

Spare Parts & Accessories:

Product Code	Product Name	Dimensions (mm)
HR-S6200/1	Interchangeable stainless steel needle	Ø 4,52
HR-S6200/2	Interchangeable stainless steel needle	Ø 5,23
HR-S6200/3	Interchangeable stainless steel needle	Ø 6,40
HR-S6200/4	Interchangeable stainless steel needle	Ø 9,07
HR-S6200/5	Interchangeable stainless steel needle	Ø 12,83
HR-S6200/6	Interchangeable stainless steel needle	Ø 16,54
HR-S6200/7	Interchangeable stainless steel needle	Ø 20,22
HR-S6200/8	Interchangeable stainless steel needle	Ø 24,79
HR-S6200/9	Interchangeable stainless steel needle	Ø 28,55



UNIVERSAL EXTRUDER

STANDARDS: EN 12697-30, 13286-2, 13286-47; AASTHO T245, T134, T180, T193; ASTM D1559, D698, D1557, D1883; BS 598-107, 1377-4, 1924-2

Used to extrude samples having dia. 4", 6", 100 mm and 150 mm. It can therefore extrude CBR, Marshall and Proctor specimens.

The extruder is actuated by a 50 kN hydraulic jack, having ram travel of 130 mm + 90 mm screw Supplied complete with adaptors.

Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)
HR-AS1800	Universal Extruder	Ø 30 x 54	30

