

PINHOLE TEST APPARATUS

STANDARDS: BS 1377:5, ASTM D4647

Certain fine-grained soils with high sodium content are highly erodible by the water flowing through them. During the test the flow of water under a high hydraulic gradient through a cavity in the soil is reproduced.

Pinhole Test Apparatus is used for evaluating clay soils for erodibility by flowing water through a small hole that is drilled through the compacted specimen.

The apparatus consists of a cylindrical metal container fitted one end with a water inlet and the other end with an outlet connection, a standpipe tube with scale and a stand to support the apparatus.

Constant Level Tank should be ordered separately.

Technical Specifications:

Product Code	Product Name	Dimensions (cm)	Weight (kg)
HR-S7725	Pinhole Test Apparatus	15x20x120	4

Spare Parts & Accessories:

Product Code	Product Name
HR-S7725/1	Cylindrical Metal Container
HR-S7725/2	PVC Tubing, Ø 10x8 mm, 10 m Coil
HR-S7725/3	Stand
HR-S7725/4	Constant Level Tank

HR-S7725



CONSOLIDATION TEST SET

STANDARDS: ASTM D2435, D3877, D4546, AASHTO T216, CEN ISO/TS 17892-5, BS 1377:5

The one-dimensional consolidation test of a soil sample enables to ascertain the settlement characteristic over a given period of time. Loads are applied with progressive increases and the settlement values are read on a dial gauge.

Tests are carried out on specimens prepared from undisturbed samples. Data obtained from these tests together with classification data and a knowledge of the soils loading history, enables estimates to be made of the behavior of foundations under load.

The High Pressure Consolidation Test Set is complete with Front Loading Oedometer, Bench for 3 Consolidation Oedometer, Ø50 mm Consolidation Cell, 10x0,01 mm Analog Dial Gauge and 64 Kg Set of Weights.

The ASTM Consolidation Test Set is complete with Front Loading Oedometer, Bench for 3 Consolidation Oedometer, Ø63,5 mm Consolidation Cell, 10x0,01 mm Analog Dial Gauge and 64 Kg Set of Weights.

The BS/EN Consolidation Test Set is complete with Front Loading Oedometer, Bench for 3 Consolidation Oedometer, Ø75 mm Consolidation Cell, 10x0,01 mm Analog Dial Gauge and 80 Kg Set of Weights.

The other accessories are optional.

The Front Loading Oedometer is rigidly manufactured from aluminum alloy casting to provide a high degree of accuracy with any frame distortions under load. The frame is designed to load the specimen through a lever arm assembly and one of three alternative beam ratios as 9:1, 10:1 and 11:1. The beam is fitted with a counter balance weight and beam support jack. The cell platform will accept the complete range consolidation cells and is fitted with a central spigot to ensure accurate centering of the cell under the loading.

The fixed ring Consolidation Cells are manufactured from corrosion-resistant materials and conform to the requirements of the relevant standards. All cells are supplied complete with Upper and Lower Porous Disc, Pressure Pad and Cutting (Specimen) Ring. Any Consolidation Cells are listed below can be chosen.



HR-S9000

HİRA TESTING EQUIPMENT

Any Dial Gauges and Set of Weights are listed below can be chosen.

Apparatus for prepare Consolidation Samples and Calibration Disc should be ordered separately.

Technical Specifications:

Product Code	Product Name	Dimensions (mm)	Weight (kg)
HR-S9000	High Pressure Consolidation Test Set	80x80x115	110
HR-S9025	ASTM Pressure Consolidation Test Set	80x80x115	112
HR-S9050	BS/EN Pressure Consolidation Test Set	80x80x115	114

Typical Loading

Product Name	Consolidation Test (Front Loading Oedometer)		
Product Code	HR-S9000	HR-S9025	HR-S9050
Application	High Pressure	ASTM	BS/EN
Specimen Diameter	50 mm	2,5" (63.5 mm)	75 mm
Specimen Area	1963 mm ²	4.906 inch ²	4416 mm ²
Beam Ratio	10:1	11:1	9:1
Total Load	64 kg	64 kg	80 kg
Stress	32 kg/cm ²	20 t/ft ²	16.3 kg/cm ²
Stress for 1 kgf	0.5 kg/cm ²	0.3125 ton/ft ²	0.2/cm ²

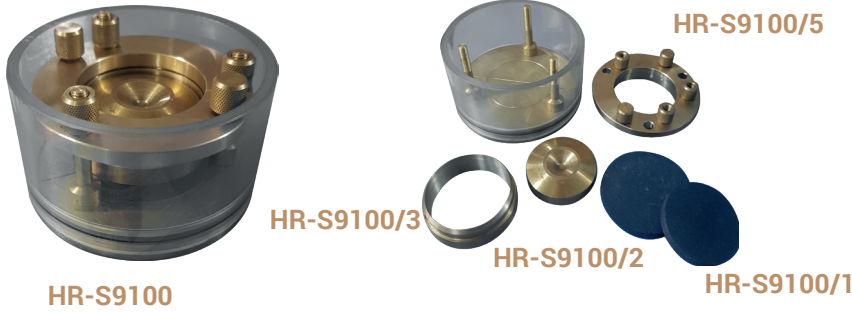


Spare Parts & Accessories:

Product Code	Product Name	Dimensions (mm)	Weight (kg)
HR-S9000/1	Front Loading Oedometer	80x80x93	30
HR-S9000/2	Bench for Consolidation, 3 Oedometer Capacity	20x80x50	20
HR-S9100	Consolidation Cell, Ø 50 mm	Ø 50	5
HR-S9100/1	Upper and Lower Porous Disc for Ø 50 mm Cell	---	---
HR-S9100/2	Pressure Pad for Ø 50 mm Cell	---	---
HR-S9100/3	Cutting (Specimen) Ring for Ø 50 mm Cell	---	---
HR-S9100/4	Calibration disc for Ø 50 mm Consolidation Cell, stainless steel	---	---
HR-S9100/5	Apparatus for prepare Consolidation Sample for Ø 50 mm samples	---	---
HR-S9200	Consolidation Cell, Ø 63,5 mm	Ø 63.5 (2.5")	6
HR-S9200/1	Upper and Lower Porous Disc for Ø 63,5 mm Cell	---	---
HR-S9200/2	Pressure Pad for Ø 63,5 mm Cell	---	---
HR-S9200/3	Cutting (Specimen) Ring for Ø 63,5 mm Cell	---	---
HR-S9200/4	Calibration disc for Ø 63,5 mm Consolidation Cell, stainless steel	---	---
HR-S9200/5	Apparatus for prepare Consolidation Sample for Ø 63,5 mm samples	---	---
HR-S9300	Consolidation Cell, Ø 75 mm	Ø 75	7
HR-S9300/1	Upper and Lower Porous Disc for Ø 75 mm Cell	---	---
HR-S9300/2	Pressure Pad for Ø 75 mm Cell	---	---
HR-S9300/3	Cutting (Specimen) Ring for Ø 75 mm Cell	---	---
HR-S9300/4	Calibration disc for Ø 75 mm Consolidation Cell, stainless steel	---	---
HR-S9300/5	Apparatus for prepare Consolidation Sample for Ø 75 mm samples	---	---
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	---	---

Set of Weights

Product Code	Set of Weights for Consolidation
HR-S9500	16 kg Set (2x 5 kg, 1x 2 kg, 2x 1 kg, 3x 0,5 kg, 2x 0,25 kg)
HR-S9510	32 kg Set (1x 10 kg, 3x 5 kg, 2x 2 kg, 1x 1 kg, 3x 0,5 kg, 2x 0,25 kg)
HR-S9520	50 kg Set (3x 10 kg, 2x 5 kg, 3x 2 kg, 2x 1 kg, 3x 0,5 kg, 2x 0,25 kg)
HR-S9530	64 kg Set (4x 10 kg, 3x 5 kg, 2x 2 kg, 3x 1 kg, 3x 0,5 kg, 2x 0,25 kg)
HR-S9540	80 kg Set (6x 10 kg, 2x 5 kg, 3x 2 kg, 2x 1 kg, 3x 0,5 kg, 2x 0,25 kg)



HR-S9100

CORE BOX

Core Box is made of sturdy, yet lightweight plastic material.

Core Box provides stable stacking and can withstand the weight of several boxes full of cores stacked on its top.

A lid comes with each Core Box that is easily removed.

Provides the best protection and is easy to transport.



Technical Specifications:

Product Code	Product Name	Type	Core Dia. (mm)	Capacity (m)	Dimensions (cm)	Weight (kg)
HR-M4500	Core Box	BQ	26-36	6x1	107x34x5	1,6
HR-M4501	Core Box	NQ	37-48	5x1	107x34x6	1,8
HR-M4502	Core Box	HQ	49-64	4x1	107x34x8	2
HR-M4503	Core Box	PQ	65-86	3x1	107x34x10	2,1

Spare Parts & Accessories:

Product Code	Product Name	Dimensions (cm)	Weight (kg)
HR-M4505	Lid	107x34x2	0,9
HR-M4506	Separator	---	---