

GOVT. POLYTECHNIC COLLEGE, BUDGAM (J&K)

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Soil Mechanics Lab

DEPARTMENT OF CIVIL ENGINEERING

S. No	Apparatus Image	Apparatus Name	Quantity
		OVEN – BIG	
1		An oven is a tool which is used to expose materials to a hot environment. Ovens contain a hollow chamber and provide a means of heating	
		the chamber in a controlled way. In use since antiquity, they have been used to accomplish a wide variety of tasks requiring controlled heating.	1
	1	STANDARD	
		PENETRATION TEST	
2		Standard Penetration Test, SPT, involves driving a standard thick walled sample tube into the ground at the bottom of a borehole by blows from a slide hammer with standard weight and falling distance.	
	,		1
	¢.	DIRECT SHEAR <u>APPARATUS</u>	
3		Direct Shear test machines are used in the simple soil mechanics test, the direct shear test. The test is performed to measure the force and horizontal displacement of a representative soil specimen sheared along a controlled horizontal plane at a constant deformation rate.	1
4		AUTO MATIC	
		SAMPLE EJECTOR	
	H-L	The Soil Sample Ejector	
		is used for removing soil samples from 4" and 6" molds up to 7" long. Hand operated with 6000 lbs. of force.	
		Adapters sold separately for 2" and 3" dia. samples.	
		2 und 5 und builpies.	1



VANE SHEAR <u>APPARATUS</u>

The vane shear test apparatus consists of a fourblade stainless steel vane attached to a steel rod that will be pushed into the ground. The height of vane is usually twice its overall widths and is often equal to 10 cm or 15 cm. A typical vane shear test kit usually contains the following items: Torque wrench.

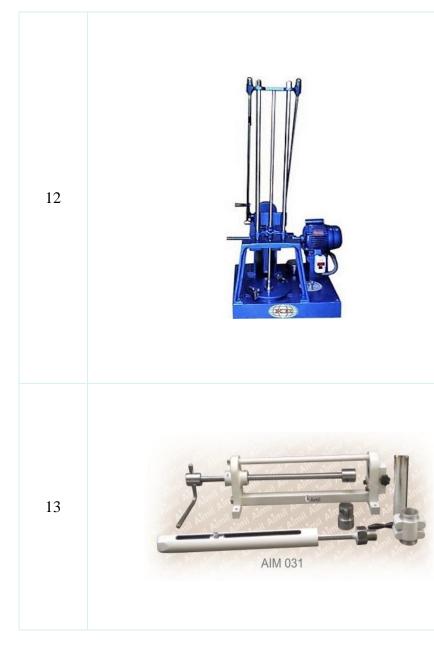
C B R TEST APPARATUS

CBR Field Equipment consists of CBR Field Jacks, Load Rings, Surcharge Plates, and Penetration Pistons to provide penetration data from in-situ field tests. LBR Equipment is similar to CBR laboratory test equipment but uses unique Compaction Molds and Spacer Discs.

CONSOLIDATION TEST APPARATUS

The consolidation apparatus is used to determine the consolidation characteristics of soils of low permeability. In addition, tests are carried out on specimens prepared from undisturbed samples. Data obtained from these tests together with classification data and knowledge of the soils loading history enables estimates to be made of the behavior of foundations under load. 1





UNIVERSAL AUTOMATIC COMPACTOR

It is a motor driven mechanical compactor useful for soil compaction into 100mm or 150mm dia moulds. Two sets of rammers are provided, one of 2.6kg. And the other of 4.89 kg arranged for 310mm and 450mm fall respectively. For compaction soil into 150mm dia moulds, 100mm face dia rammers having weight of 4.89Kg is used. Whereas for 100mm dia moulds, they are of 50mm dia.

HAND OPERATED SAMPLE EXTRACTOR

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Hand operated Extractor, for 38 mm dia specimens for extracting soil core specimens of 38 mm dia from sampling tube or from larger size samplers. It can be used in the field also, for taking out samples.