DIRECT SHEAR

BE 12

A direct shear test is a geotechnical laboratory procedure to measure the shear strength of soil by applying a normal load to a soil sample and then shearing it horizontally across a predetermined plane until failure. The test determines the soil's cohesion (C) and angle of internal friction (Ø), which are critical parameters for designing structures like foundations and retaining walls. The soil sample is contained in a two-part shear box, and the upper half is moved horizontally relative to the fixed lower half, while the shear force and horizontal displacement are measured until the sample fails.

STANDARD FOLLOWING

Ref. Standards IS:11229, 2720 (Part 13)

DESCRIPTION

Type of Shear - Direct/Residual measurement

Operation - Motorized

Rates of Strain – A - 1.25, 0.625, 0.25, 0.125, 0.05, 0.025,

(mm/min) B - 0.01, 0.005, 0.002, 0.001, 0.0004, 0.0002

Specimen Size - 60 x 60 x 25mm

Power - 220 V, 50 Hz, Single Phase, AC supply

BE 12-01	Manual type Direct Shear
BE 12-02	Digital with Software type Direct Shear
BE 12-03	Shear Box Assembly
BE 12-04	Halves of the Shear Box
BE 12-05	Plane Gripper Plate
BE 12-06	Perforated Gripper Plate
BE 12-07	Porous Stone
BE 12-08	Top Loading Pad
BE 12-09	Base Plate
BE 12-10	Shear Box Housing, with two Ball Roller Strips
BE 12-11	Specimen Cutter
BE 12-12	Surcharge Weights to attain Normal Stress of 3 kg/cm² 0.05 kg/cm² 4 Nos. 0.10 kg/cm² 1 No. 0.20 kg/cm² 1 No. 0.50 kg/cm² 3 Nos. 1.00 kg/cm²
BE 12-13	Tension- Compression Proving Ring, 25 kN (25000 kgf) capacity
BE 12-14	Dial Gauge - 25 mm (2 Nos.)
BE 12-15	Load Cell 25 kn
BE 12-16	LVDT – 25 mm (2 Nos)
BE 12-17	Digital Indicator

BE 12-01

BE 12-02

It’s Machine same as a BE 12-01 only some difference Digitalization with Software and include Load Cell, LVDT.