

# VANE SHEAR APPARATUS MOTORIZED

## BE 21

A **vane shears test apparatus**, commonly used to measure the shear strength of soft, cohesive soils (like clays) in geotechnical engineering. Here's a concise breakdown of its components and operation. The main component that applies torque to the vane, adjustable in height. Allows precise height adjustment to lower the vane into the soil specimen. A cross-shaped blade inserted into the soil to measure shear resistance. Drives the rotation of the vane by turning a calibrated torsion spring. The spring connects to the vane shaft, and its deformation measures torque. The shaft links to a resettable pointer. The pointer moves on a dial graduated in degrees, showing the angle of torque. The torque is calculated by multiplying the dial reading by the spring factor (a constant specific to the spring). The vane is lowered into the soil, rotated by the motor, and the torque required to shear the soil is measured via the spring's deformation, indicated on the dial. The torque value (in units like Nm or kNm) is obtained by multiplying the dial reading (in degrees) by the spring factor. Rate of rotation : 1/60 rpm operates on 220, 50 Hz, Single Phase, AC supply. Supplied complete.

## STANDARD FOLLOWING

IS 4434 (1978), IS 2720 (Part 30)

## DESCRIPTION

BALAJI ENTERPRISES

BE 21-01	Container	For Sample
BE 21-02	Set of 4 Springs	each of capacity 2 kg-cm, 4 kg-cm, 6 kg-cm and 8 kg-cm

