



Field Vane Shear

UMI - 151

In-situ Vane Shear Test

Apparatus

Ref. Standard

IS:4434

This apparatus is designed for conducting In-situ vane shear test from the bottom of a bore hole in saturated cohesive deposits, for determining their in-place shearing resistance. The equipment consists of a torque applicator assembly mounted on a base. A gear wheel, which is marked in degrees, holds a torque ring and is geared to a crank. The torque ring has a section cut from it and deforms as torque is applied and the deformation is indicated by a dial gauge. A pointer is provided for registering the rotation of the vane.

A detachable stand is provided to anchor the instrument. An attachment to securely hold the string of rods is provided. A calibration curve to convert the dial gauge readings to kg-cm of torque is also supplied.

The outfit comprises the following :

Torque Applicator Assembly, capacity 2,000 kg-cm.
Complete with stand : One

Vane (with Vane Rod), 37.5 mm dia x 75 mm high : One

Vane (with Vane Rod), 50 mm dia x
100 mm high : One

Torque Rod (square cross section)
60 cm long : One

Rods (quick coupling type)
1m long : 25

Rods (quick coupling type)
0.5 m long : 10

Dummy Rod : One

Optional Extras

Vane (with Vane Rod), 65 mm dia x 130 mm high

Vane (with Vane Rod), 75 mm dia x 150 mm high

Vane (with Vane Rod), 100 mm dia x 200 mm high

Guide, with ball bearing arrangement, for alignment of the string of rods, for use with 10 cm casing pipe

Guide, with ball bearing arrangement, for alignment of the string of rods, for use with 15 cm casing pipe

Note : Drilling equipment, including casing for borehole and jacking arrangement which are required for performing the test, do not form part of the above outfit.

Note : Due to constant R&D, specifications are subject to change without prior notice.

