



## 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.

