

# MODEL TO-105-2

## Direct Shear Test Apparatus



Every building or structure imposes loads on the soil supporting the foundation and this develops stress among the soil particles; failure of this stress leads to the sliding of one body of soil relative to the surrounding mass.

Tinius Olsen's direct shear test apparatus is a motorized dead weight testing machine designed for direct and residual shear testing on undisturbed and remolded soil specimens. The machine uses a 10:1 beam loading device to control confining pressures, a load cell with readout measures shear pressure and a displacement transducer to measure shear and vertical displacement.

### Applicable standards

- BS 1377; EN 1997-2; ASTM D3080

### MODEL TO-105-2 SPECIFICATIONS

|                            |   |
|----------------------------|---|
| Mode of display            | Micro-controller multi-line alpha numeric display for all simultaneous channels |
| Capacity                   | 2kN (200kgf) load cell  |
| Range                      | ± 20 mm. LVDT displacement sensor with 3m long cable                            |
| Shear measurement          | Direct/residual   |
| Fast forward/reverse speed | 10mm/min  |
| Rates of strain            | Up to 9.99mm/minute   |
| Specimen size              | 60 x 60 x 25mm  |

### SUPPLIED AS STANDARD

- **TO-10401** Shear box assembly
- **TO-10402** Shear box housing with linear bearing case
- **TO-10405** Specimen cutter
- **TO-10410** Weight set to attain 3kg/cm<sup>2</sup> stress on sample
- **TO-10501** Data acquisition system

### OPTIONAL ACCESSORIES

- **TO-10401** Shear box assembly
- **TO-10402** Shear box housing with linear bearing case
- **TO-10405** Specimen cutter
- **TO-10410** Weight set to attain 3kg/cm<sup>2</sup> stress on sample

### ORDERING INFORMATION

- **TO-105-2-01** Direct shear test apparatus, 2kN with data acquisition unit, 110VAC, 60Hz
- **TO-105-2-02** Direct shear test apparatus, 2kN with data acquisition unit, 220VAC, 60Hz
- **TO-105-2-03** Direct shear test apparatus, 2kN with data acquisition unit, 220VAC, 50Hz



### Key features

- Microprocessor control.
- Rapid approach and return to start datum.
- Fully variable speed, up to 9.99mm/min.
- Reduced operator involvement.
- Direct entry through keyboard.
- Direct reading in engineering units.
- Modular transducer system.