

**Product Name :**  
Digital Direct Shear Testing Machine

**Product Code :**  
CHINAELABC5290002



#### **Description :**

Digital Direct Shear Testing Machine

#### **Technical Specification :**

This machine performs consolidation & shearing operations that are normally carried out by a standard direct shear & residual shear test at an auto-controlled speed. It uses a micro-stepper motor, allowing the system to apply a horizontal shearing loading to the soil specimen at a specific shear rate.

The shear force readings are obtained from the proving ring at specified intervals of the horizontal displacement shown on the touch screen display.

This equipment is also equipped with limit sensors to prevent the shearbox from over-traveling at forward or reverse motions.

The control panel is equipped with an LCD screen and keyboard for manual setting and control.

The large liquid crystal display and 16 key membrane allow for a reciprocating shear capability and adjustable time setting using a built-in 16-bit Data acquisition and control.

Shear Base Unit

including:

Computer controlled Shear frame, Max. Travel ranges: 30mm.

Lever ration: 11:1, 10:1, 9:1.

Digital control and display of speed. Reversible stepper.

Motor for residual strength test. Infinitely variable speed drive from 0.00001 to 9.99999mm/min.

Power supply: 220VAC / 110VAC (50HZ or 60HZ)

Shear Box Assembly(Material:SUS304 )

60\*60 and 100\*100mm

One embedded controller for horizontal controls, including:

One front panel LCD and Keypad for manual controls, 240\*128 liquid crystal display and a 16 key membrane,

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reciprocating shear capability and times are settable Built-in 16 bit Data Acquisition and Control, two analog and two digital channels with signal conditioning and power supplies built-in.

Micro-switch mechanism to prevent ram over travel.

Load Sensor Assembly:

5KN capacity, fitted with 4 pin DIN plug.

Vertical Displacement Transducer Assembly:

12.7mm travel,

Accuracy:0.003mm?

Resolution:0.001mm, with 4pin DIN plug, mounting pillar and bracket for shear box.

Horizontal Displacement Transducer Assembly:

25.4mm travel,

Accuracy:0.003mm

Resolution:0.001mm, 4 pin DIN plug, mounting pillar and bracket for shear box.

Set of Weights: 50kg in total .

software in Windows :

digital control of speed and data acquisition via control system.



**Engineering Lab China**