

DIRECT SHEAR APPARATUS DDS-5A/DDS-5C

STANDARD: BS1377; ASTM D3080; AASHTO T-236; EN DD ENV 1997-2; M-2011

It is designed to determine the shearing strength of the soil. It adopts transverse processing control drive system and it can not only receive commands through keyboard input, but also be controlled by computer. The recovery rate is delayed to the initial position, providing a convenient way for the shear box to return when restarting a new test or continuing a residual shear test.

FEATURES

- ⊙ USB or Ethernet interface for computer control;
- ⊙ Integrated LCD display for standalone control, 240*128 LCD screen to show horizontal normal displacement, shear rate, shearing and cyclic shearing rate, etc;
- ⊙ Test setup and control facilities;
- ⊙ On-board data logging with large data storage on internal u disk (option);
- ⊙ Data export via USB link for manipulation within excel;
- ⊙ High speed arm processor;
- ⊙ High speed sensor data conversion;
- ⊙ Built-in live data table and graphs;
- ⊙ Built-in auto protection for sensor limits;
- ⊙ Non-volatile memory for sensitive data.
- ⊙ Fast forward and backward to initial position.

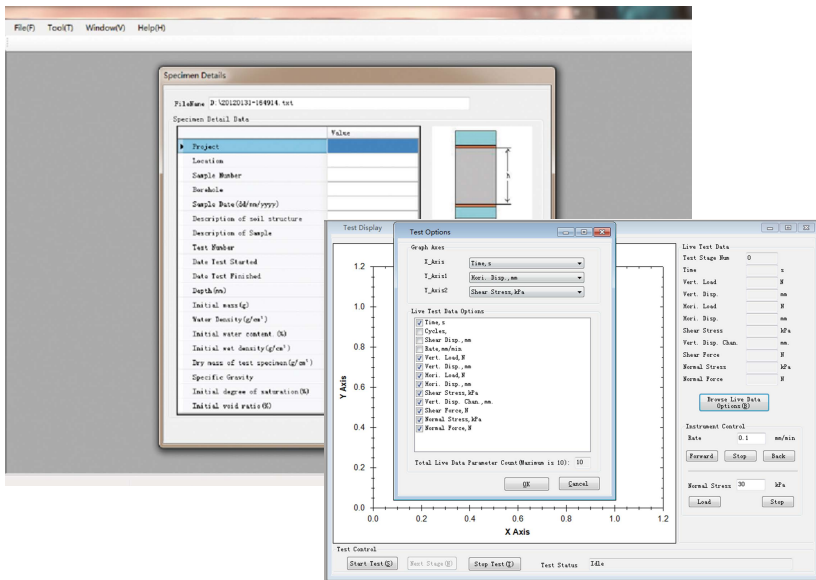
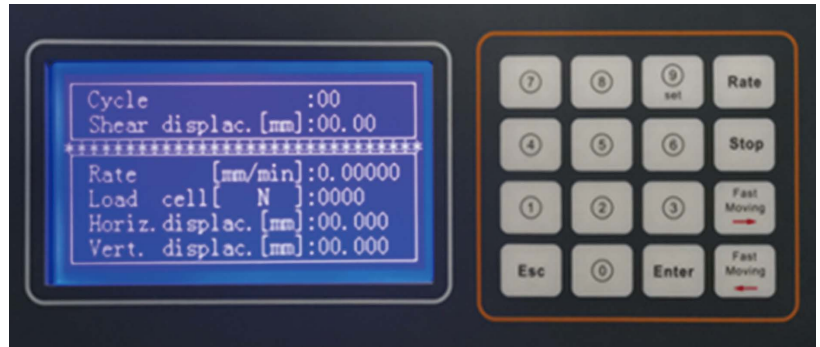


TECHNICAL SPECIFICATIONS

Model	DDS-5A	DDS-5C
Max. size (shear box)	100mm sq.	Ø 2.5 in.
Nominal size	60mm sq.	Ø 2.414 in. and 50mm
Max. shear force	5kN (10kN optional)	5kN (10kN optional)
Precision	+/- 0.1% F.S.	+/- 0.1% F.S.
Displacement sensor measuring range	25.4mm with accuracy 0.003mm	25.4mm with accuracy 0.003mm
	12.7mm with accuracy 0.003mm	12.7mm with accuracy 0.003mm
Power	110-240V 50Hz	110-240V 50Hz
Dimensions	1230×370×1030 mm	1230×370×1030 mm
Net weight	160kg	156kg
Slotted steel weights	50kg	50kg

DATA ACQUISITION SYSTEM

- ⊙ The main interface is composed by 240*128 LCD. The test parameters can be shown and read on the LCD.
- ⊙ Shear diaplac.(mm): shearing movement
- ⊙ Cycle: times of cyclic shear
- ⊙ Rate (mm/min): shear rate
- ⊙ Horiz. Load(N): Horizontal shear force
- ⊙ Vert. Load(N): Vertical force
- ⊙ Horiz. diaplac.(mm): Horizontal displacement
- ⊙ Vert.diaplac.(mm): Vertical displacement



SOFTWARE

It is designed to determine the shearing strength of the soil. It adopts transverse processing control drive system and it can not only receive commands through keyboard input, but also be controlled by computer. The recovery rate is delayed to the initial position, providing a convenient way for the shear box to return when restarting a new test or continuing a residual shear test.

TEST MODULE

- ⊙ Data acquisition module
- ⊙ Repeated shear test(optional)
- ⊙ Rheological shear test (optional)
- ⊙ Standard consolidation module (optional)
- ⊙ Standard shear module (optional)
- ⊙ Quick shear module (optional)
- ⊙ Post-processing module

SHEAR BOX ACCESSORIES

All shear box assemblies are constructed of brass and are designed to contain water that surrounds the specimen. They consist of a square box with a rigid walled round or square hole complete with adapter loading pad, retaining plate, 2 porous stones.

