



New in 2009!



Features

- ◆ Fully automatic loading and displacement measurement
- ◆ 305 x 305mm sample box
- ◆ Complies to BS1377 Part 7 1990
- ◆ Real-Time display of test results
- ◆ Clause 555 Multi-reversal testing & consolidation
- ◆ Stainless steel water bath
- ◆ Integral reference arm, optional rated winch for easy handling
- ◆ Electronic displacement sensor
- ◆ Calibration certificates
- ◆ Hydraulically controlled vertical loading system
- ◆ Precision Stepper Motor for Horizontal loading
- ◆ Direct measurement of load by calibrated load cells

Fully Automatic Large Scale Shear Box

The SB2010 large scale shear box is the most up-to-date and technologically advanced direct shear box available. It has been designed and developed to determine the Shear Strength of soil specimens up to 305 x 305 x 150mm in size and fully in accordance with BS 1377 Part 7 1990, and can also be used on geosynthetics.

The SB2010 is fully automated and incorporates a PC controller for operating the machine, for logging and displaying test data in real time and for reporting test results, cutting down technician time.

Horizontal loads up to 100KN are applied using a precision stepper motor to ensure accurate speed of advancement.

Load is measured directly using a calibrated load cell. Vertical loads up to 50KN are applied using a high performance hydraulic proportional valve and cylinder, and is measured directly using a calibrated load cell.

The SB2010 Shear Box is a closed loop system controlled by the PC controller with user friendly software, which is designed to be intuitive to operate. The system is networkable and can integrate fully with laboratory IT.

Inserts are available for testing standard 150x150mm sample boxes and a full calibration and support service is available.

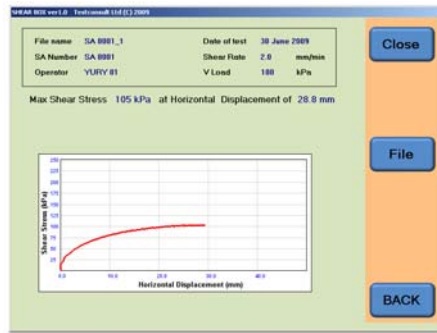




SB2010 Specifications

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- Max Sample Box Size:** 305x305x100mm upper & lower
- Programmable Strain Rate:** 0 to 10mm/min
- Strain Rate Resolution :** 0.1mm/min
- Maximum Travel:** 50mm
- Travel Resolution:** 0.01mm
- Overall Dimensions:** 750x1600x1850mm
- Weight Approx:** 1010Kg
- Max Lateral Load:** 100KN
- Lateral Load Cell range:** 0 to 100 KN
- Lateral Load Cell Non-Linearity:** 0.1% FS
- Max Vertical Load :** 50 KN
- Vertical Load Cell range:** 0 to 50 KN
- Vertical Load Cell Non-Linearity:** 0.1% FS
- Vertical LVDT range:** 0 to 25mm
- LVDT Non Linearity:** 0.07% FS
- Power Supply:** Three Phase VAC
- Interfaces:** USB, Ethernet *, Printer*



Test data is displayed in real time



Stepper motor for precision controlled horizontal loading rate.



Safety features include overload sensors and emergency stop button



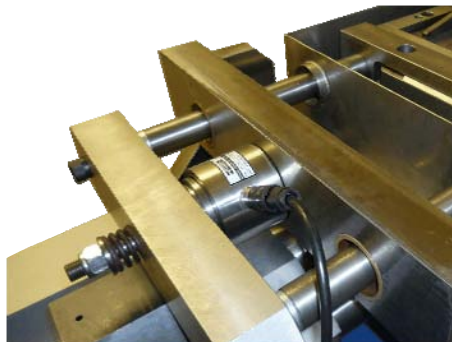
Electronic displacement transducers for measuring vertical displacement.

Standard Inclusions

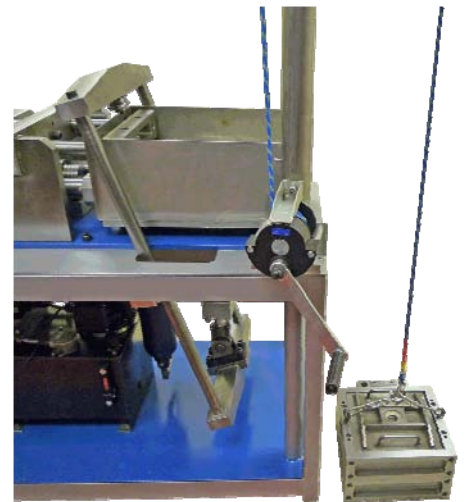
Shear box container 305 x 305mm, perforated spacer plates, grooved base plate, loading cap plate, compaction plate, Instruction Manual, SB2010 Software CD, Calibration certificates.

Optional Extras

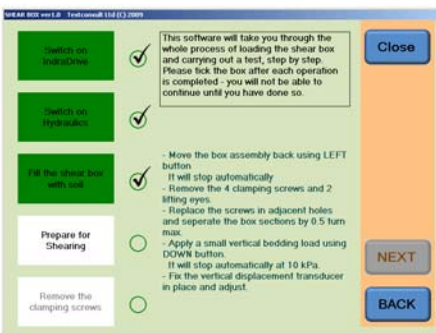
Sample Box rated hand winch, 150x150mm sample box, small shear box insert. Annual calibration, software upgrades.



High Precision load cells for monitoring vertical and horizontal load



Optional rated heavy duty hand winch for removal of sample box , which can be safely lowered to the floor for dismantling, cleaning and charging.



Designed for easy insertion and removal of shear box

The SB2010 software is very user friendly .



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