



SOIL MECHANICS TESTING MADE EASY

# TORSHEAR



Automatic Ring Shear Testing Machine  
for Residual Strength of Soils

**Standards** ASTM D6467 | ASTM D7608 | BS 1377:7



Torshear EmS is a versatile and fully automatic ring shear testing machine that benefits from the new low maintenance, efficient and environmentally-friendly Electromechanical Servoactuation (EmS) technology.

Silent, compact and high-performing, the Torshear EmS testing system can be run stand-alone or via our ingenious software that can connect up to six units with just one PC, enabling you to expand your laboratory gradually and seamlessly.



**Fully automatic standalone ring shear soil testing system** managed by local user interface with 6" touch screen high resolution color display for performing torsional ring shear test in drained condition to determine the residual shear strength of cohesive soil.



**Modular and expandable** — the optional dedicated software allows you to gradually connect up to six units via LAN port using the same PC enabling you to build your laboratory without interruption and resulting in excellent return on investments.



**Environmentally friendly and quiet** — the Torshear EmS benefits from the new Electromechanical Servoactuation (EmS) technology.



**High-performing** with maximum vertical stress 1,200 kPa and maximum shear stress 1,000 kPa, infinite variable speed from 0.00001 to 1000°/min, with pre-shearing stage selectable and adjustable number of cycles of shearing.



**Lightweight and compact system** is easy to handle, can be located on a standard bench, has a small footprint and maximizes the use of space in your laboratory.



**Long-life and low maintenance** with corrosion-free, stainless steel ring shear box fitted with easy removable sintered porous stone with specialized pattern design offering excellent resistance to corrosion, wear and tear to chemicals often mixed with soil specimens.



**Smart and easy-to-use system** with removable load cells and displacement transducers simplifies testing, maintenance and calibration.

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## Versatile and fully automatic



**10 mm displacement transducer** for measuring vertical settlement.\*

**High performing 5 kN capacity load cells** to measure vertical force.\*

**Easily removable 1 kN load cells** (for re-calibrating) deliver accurate measurement of torsional shear stress.\*

**Fast, smooth and accurate loading** delivered by integrated optimized PID closed-loop control with precise load ensured using a load cell directly mounted on the loading tip.

**The large 6" touchscreen color display and intuitive user interface** allows you to start, pause and stop the test, display readings during the tests and perform transducers calibrations with ease.



**40 cm² stainless steel ring shear box** fitted with easily removable sintered porous stones with specialized pattern design.

**Reliable, smooth and accurate torsional shear application** thanks to the rotational shearing action continuously applied by an electromechanical stepper motor.

\*Supplied with traceable calibration certificate.

### Technical Specifications

- Maximum Vertical stress:** 1,200 kPa
- Maximum Shear stress:** 1,000 kPa
- Test speed:** from 0.00001 – 1000°/min
- Weight approx.:** 60 kg
- Specimen dimensions:** Internal dia. 70 mm; external dia. 100 mm
- Sample Area:** 40 cm²
- Weight approx.:** 60 kg
- Sample thickness:** 5 mm (various thicknesses available on request)

### Ordering Information

**27-WF22E02 Torshear EmS – Electromechanical Servoactuation technology, automatic ring shear testing machine.**  
220-100 V / 50-60 Hz / 1 Ph



**ACE** EMS TECH

Automatic Computerized Oedometer System



**SHEARMATIC** EMS TECH

Advanced Automatic Direct/Residual Shear Testing Machine

## ▶ Wykeham Farrance Customer Care

**At Wykeham Farrance, we are proud of our products.**

As a valued customer of Wykeham Farrance, you will receive continuous, expert support and advice for your instrument. Furthermore, we offer full installation and training in the correct operation of your soil testing equipment.

For support from our expert Customer Care Team, contact your local Wykeham Farrance distributor or email [wfsupport@controls-group.com](mailto:wfsupport@controls-group.com).

Visit our website for more information [www.controls-group.com/wf](http://www.controls-group.com/wf).



## ▶ Contact us

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