SOIL > CONSOLIDATION

CONSOLIDATION APPARATUS (Automatic, Oedometer)

Code : T210A

- The Automatic Consolidation Device is designed for fully automated execution of one-dimensional consolidation and swell tests in accordance with international standards. The system ensures high accuracy, repeatability, and efficiency in soil compressibility evaluation.
- Combines servo-controlled loading with real-time data acquisition to perform incremental consolidation, constant rate of strain, swelling, CHG, and optional unconfined compression tests without manual intervention.
- Available in 10 kN, 20 kN, and 50 kN configurations, offering flexibility for a broad range of specimen stiffness and expected load profiles.
- Utilizes closed-loop PID control and precision transducers for reliable application and monitoring of axial displacement and load.
- Features compact, bench-top design with integrated actuators and modular electronics, eliminating the need for dead weights or hydraulic systems.

- Supports networked operation with USB connectivity for centralized control, and includes touchscreen interface for standalone use.
- Compatible with Windows-based software for automated test management, result plotting, and report generation in multiple international formats.
- Includes test cells for 50 mm diameter samples as standard, with options for alternative specimen sizes and back-pressure saturation.

STANDARDS

ASTM D2435 • ASTM D3877 • ASTM D4546 • EN 17892-5 • AASHTO T216 • BS 1377-5

TECHNICAL SPECIFICATIONS

- Load capacity options: 10 kN / 20 kN / 50 kN
- Load application: Servo-controlled
- Displacement transducer travel: 10 mm
- Speed: Adjustable up to 10 mm/min
- Sample diameter: Ø 50 mm standard (other dimensions are available and should be ordered separately)
- Control interface: Digital Touch Screen Controlling Unit with USB Connection to PC
- Data acquisition: Integrated, multi-channel, real-time logging
- Power Supply: 220 - 240 V / 50 - 60 Hz

EQUIPPED WITH

- Precision load cell and LVDT-type displacement transducer
- Automated load and displacement control via PID feedback

- Digital Touch Screen Controlling Unit with USB Connection to PC

SUPPLIED WITH

- Consolidation Cell (Ø 50 mm)
- Porous Stones (Ø 50 mm)
- Cutting Ring (Ø 50 mm)

ORDERING INFORMATION

Item Name	Item Code
AUTOMATIC CONSOLIDATION DEVICE - 10 kN	T210A010U
AUTOMATIC CONSOLIDATION DEVICE - 20 kN	T210A020U
AUTOMATIC CONSOLIDATION DEVICE - 50 kN	T210A050U
OEDOMETER - CONSOLIDATION	T210H00XH
CONOLIDATION CELL - Ø 50 mm	T210P001H
CONOLIDATION CELL - Ø 63.50 mm	T210P002H
CONOLIDATION CELL - Ø 75 mm	T210P003H
FRAME for OEDOMETER (1 Unit)	T210P004H
FRAME for OEDOMETER (2 Units)	T210P005H
FRAME for OEDOMETER (3 Units)	T210P006H
SUCTION-CONTROLLED OEDOMETER CELL	T210P007H
SUCTION-CONTROLLED OEDOMETER CELL with DIAMETRIC CALIPER	T210P008H
PRE-COMPRESSION FRAME for 3 SPECIMENS	T210P009H
POROUS STONES for Ø 63.5 mm (Set of 2)	T210P010H
POROUS STONES for Ø 75 mm (Set of 2)	T210P011H

CONOLIDATION CELL - Ø 84 mm	T210P012H
CONOLIDATION CELL - Ø 94 mm	T210P013H