floXlab · Nanterre, France

GEOLAB

Educational Rock Compression Tester

300 kN	592 MPa	70 MPa	5 Tests
Max Axial Load	Axial Stress (1")	Confining Pressure	In One System

TEST CAPABILITIES

- **Uniaxial & Triaxial Compression**
  ASTM D2664 · D7012
- **Acoustic Velocity (P, S1, S2)**
  ASTM D2845
- **Brazilian Indirect Tension**
  ASTM D3967
- **Point Load Strength Index**
  ASTM D5731
- **Servo-controlled · 2 modes**
  Load / Displacement

KEY SPECIFICATIONS

Axial Load	300 kN
Axial Stress	592 MPa (1")
Confining P.	70 MPa
Piston Stroke	50 mm
Hydraulic P.	20 MPa
Motor Power	1.5 kW
Frame Weight	60 kg

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ABOUT THE GEOLAB

One compact system. Five essential tests.

The GEOLAB is a servo-controlled compression testing apparatus designed for universities, research centres and technical institutes. It performs uniaxial and triaxial experiments on rock specimens, determining critical geomechanical parameters rapidly and reliably.

Triaxial Compression
ASTM D2664 · D7012

Uniaxial Compression
ASTM D7012

Acoustic Velocity
ASTM D2845

Brazilian Tension
ASTM D3967

Point Load Strength
ASTM D5731

Technical Specifications

Max Axial Load	300 kN	Hydraulic Max Pressure	20 MPa
Axial Stress (1" sample)	592 MPa	Pump Flow	0.1 - 1 LPM
Axial Stress (1.5" sample)	263 MPa	Motor Power	1.5 kW (230 VAC)
Confining Pressure	70 MPa	Frame Dimensions	1.0 × 1.5 × 0.3 m
Sample Diameter	Up to 1.5"	Frame Weight	60 kg
Piston Stroke	50 mm		
Control Modes	Load / Displacement		

MODULAR SYSTEM

Expand your lab's capabilities at any time

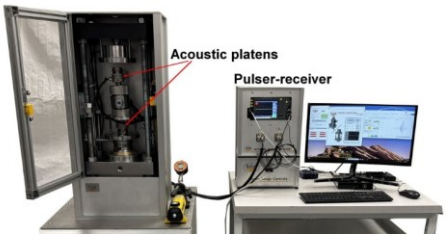
Each fixture integrates seamlessly with the GEOLAB compression frame and GEOTEST supervision software.

OPTION 1 — Triaxial HOEK Cell

ASTM D2664 · D7012

Axial load at confining pressure. Axial & radial strains via gauges. 1" & 1.5" Ø specimens.

OPTION 2 — Acoustic Velocity Platens



ASTM D2845

P-wave, S1 & S2 wave propagation under triaxial conditions. Dynamic elastic constants.

OPTION 3 — Uniaxial Compression Platens

ASTM D7012

UCS, Young's modulus & Poisson's ratio. Strain gauge compatible. Multiple diameters.

OPTION 4 — Brazilian Tension Fixture

ASTM D3967

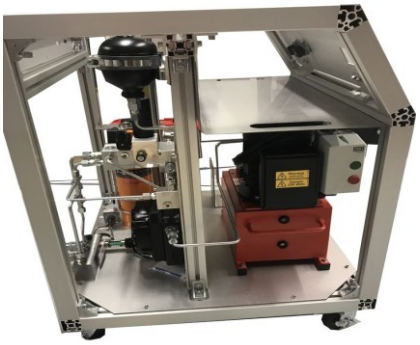
Indirect tensile strength via diametrical compression. Precision jaws. Ø 54.7 mm.

OPTION 5 — Point Load Fixture

ASTM D5731

Point Load Strength Index (Is). Two conical platens for cores, blocks or fragments.

HYDRAULICS — Hydraulic Power Pack



Integrated unit

Gear pump, 10 L reservoir, 20 MPa max, 10-micron filter. 1.5 kW — 230 VAC.

GEOTEST 1000 SOFTWARE

Supervision, Control & Reporting

The proprietary floXlab GEOLAB software provides an icon-driven interface guiding users through every test stage. Connected via Ethernet, it delivers real-time data acquisition, graphical display, automated test sequences and professional report generation.

Live Synoptic
Full system status overview

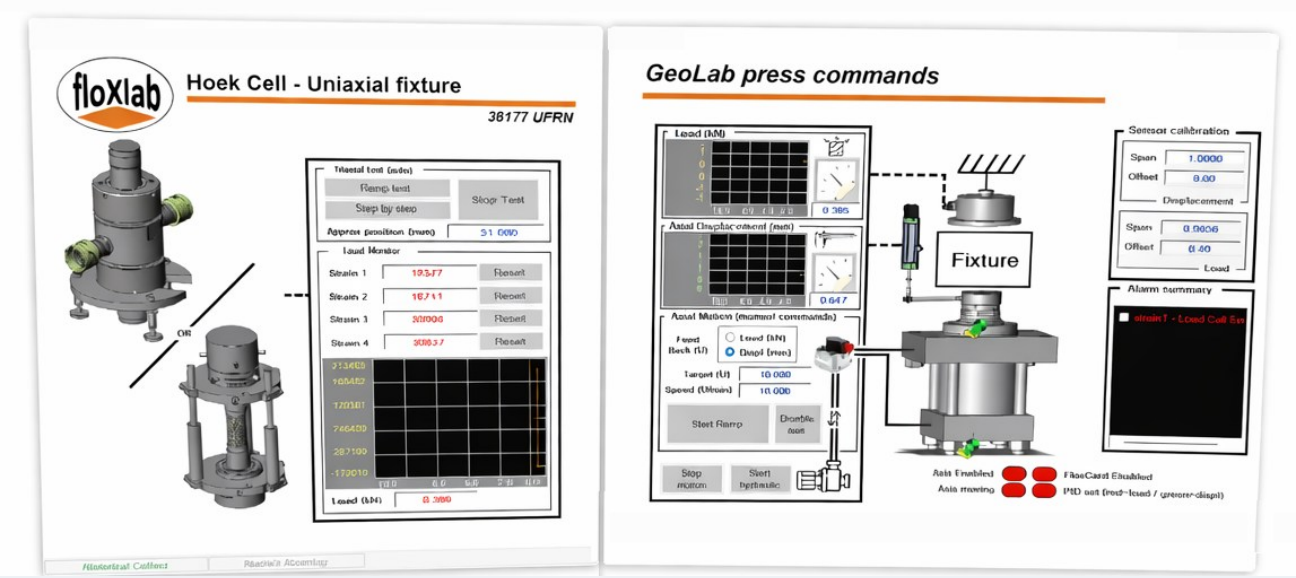
Real-time Data
Load, stress, strain & displacement

Trend Curves
Live graphical plots throughout test

Set Point Control
Enter and adjust parameters live

Macro Commands
Program automated test sequences

Report Generation
Export professional test reports



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