



Triaxial Cell 100 Mpa 200 °C – TRI-X 100/200



General Features

Ground test relies on the idea first that behavior of the mass of the ground can be, with necessary conditions, predicted in the way that some peculiar qualities can be determined.

Tests of the ground, well conducted, constitute a sure base of knowledge to permit their exploitations with the best conditions.

This cell has been realized to determine bearing capacity of the ground and its land subsistence when this one is under triaxial strength, by executing measures linked by the product saturation contained. This enable the specimen, under test, to submit pressure conditions simulating the ones existing in the mass of the ground.

The rock sample properties are determined by laboratory test.

Specifications	
Working pressure	100 Mpa
Temperature range	Ambient to 200°C
Independent axial stress	Until 680 Mpa
Radial stress	100 Mpa
Sample diameter	1", 1 ½", 40 mm (other upon request)
Sample length	Sample Ø x 2
Oscillation radial/axial stress	Up to 2 Hz

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Measurements

This triaxial cell enables permeability, sound velocity, resistivity and rock sample deformation measurements. These states changes are detected by ultrasonic sensors, strength gauges, pressure sensors and deformation measurement.

- Permeability measurement
- Pore volume measurement
- Resistivity measurement
- Acoustic resistance
- Axial/ radial independent load
- Deformation $\Delta L/L$,
- Deformation $\Delta\phi/\phi$



Base plate – Acoustic setup

Characteristics

TRI-X 100/200 is composed of:

- HP Triaxial cell
- Coaxial and standard feedthroughs
- Safety burst disc with holder
- Specific frame, booster for fast filling & pneumatic jacks
- 200°C heating system with regulators
- Electrical cabinet
- HP pumps for axial and radial stress
- PC and Falcon® software for supervision & data acquisition
- PED 97/23/EC certification
- Option axial measurement displacement with non-contact inductive sensors ($\Delta L/L$)
- Option radial measurement displacement ($\Delta \phi/\phi$)
- Option speed of sound by P & S acoustic waves
- Option gas permeability, pore bulk & porosity measurement with or without oscillating

Example of synoptic

