



TruePath™

Automated Stress Path System

The TruePath™ Automated Stress Path System is GEOTAC's most advanced system incorporating state of the art in data acquisition and feedback control. It is a computer controlled triaxial testing system capable of consolidating and shearing soil specimens

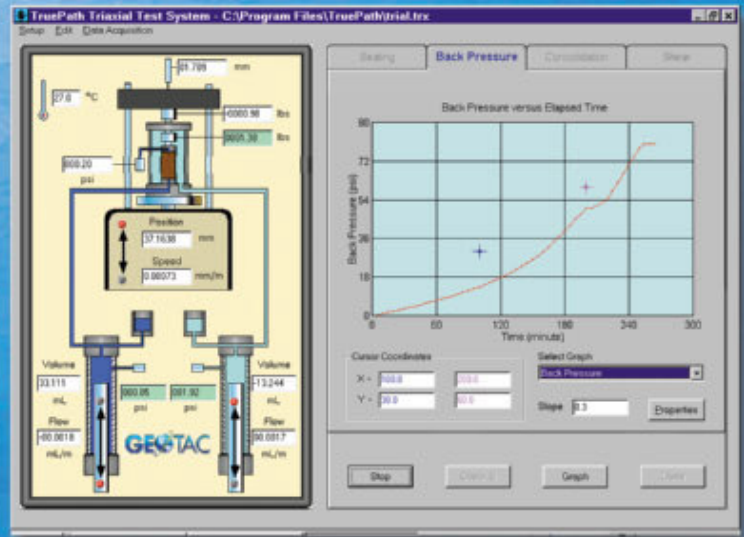


along specified stress paths. A TruePath™ system consists of a Sigma-1™ load frame, two DigiFlow™ pressure volume actuators (flow pumps), and a high-resolution analog data acquisition system, all connected to a computer through TestNet™. The DigiFlow™ pressure volume actuators generate and control pressures up to 2100 kPa and flow rates ranging from 25 mL/min to 0.000025 mL/min. The system also includes two load cells (external and internal), one deformation sensor, three pressure sensors, and a temperature sensor.

TruePath™ software has the same look and feel as Sigma-1™ software. A 'status panel' provides a quick assessment of the system status, and tab panels guide the user through testing with prompts and instruction boxes. A manual panel allows the operator independent control of load frame and pressure-volume actuators for non-standard testing. A sensor management facility is provided for calibrating and storing sensor information.

TruePath™ software guides the operator through the following test stages:

- ▶ **Seating** - automatically adjusts cell pressure and/or vertical load to maintain specimen volume or vertical load. Plots: vertical load, volume change, effective stress, and vertical strain versus time
- ▶ **Back pressure** - options for ramp, step or a gradual increase in back pressure based on pore stiffness (dP/dV) and automated measurement of B coefficient. Plots: back pressure, water intake, effective stress, flow rate, vertical strain, pore stiffness and temperature versus time.
- ▶ **Consolidation** - options for isotropic, anisotropic, K_0 , and creep consolidation including unload-reload cycles to obtain specimens with $OCR > 1$ for SHANSEP testing. Plots: principal stresses versus time, volume change versus time, temperature versus time, stress ratio versus vertical effective stress, vertical effective stress versus vertical strain.
- ▶ **Shear** - options for specimen shearing include constant rate of deformation, shear along a prescribed stress path, or a series of step loads. Plots: p - q , principal stresses, shear stress, pore pressure and stress ratio versus vertical strain, and temperature versus time.



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Accurate, reliable, easy to use, a TruePath™ system takes complex geotechnical testing to a new affordable level.