

Unconfined Compressive Strength System

Related Standards: BS1377 : 1990 ; ASTM D2166/ D2166M-13

The Unconfined Compressive Strength Testing System is designed to apply a steadily increasing axial compression to a cylindrical specimen of cohesive soil or soft rock until failure occurs.

A VJ Tech Advanced TriSCAN Pro Load Frame is used to apply the compressive force (measured with a Load Cell) and the axial compression is measured with an LSCT Displacement transducer. The test provides an immediate approximate value of the compressive strength of the specimen and Young's Modulus, and the Poisson ratio can be calculated when using on sample strain gauges or transducers.

Ordering Information

Main System Component

VJT5000-P Pro TriSCAN 50 kN Advanced Load Frame

Transducers

VJT0272 LSCT Displacement Transducer (50mm)

VJTS0365 50 kN S-Beam Load Cell with cable & plug

Accessories

VJT0716 Stabilising Bar

VJT0717 Base Plate with penetration dial gauge arm

VJT0719 UNC Adjustable Plunger Rod (without head)

VJT0719-100 Plunger Head (100 mm) (other Plunger head sizes also available)

VJT0281K CBR/UNC Adaptor Set for Load Cell & LSCT

VJT5000-T Framed Triaxial Table

Software

VJT-csTRIAX Clisp Studio Triaxial Software



Unconfined Compressive Strength System Setup

System Features

- USB or Ethernet Interface for PC control
- Integrated 7" Touchscreen Colour Display for Standalone use
- Internal SD card (8GB standard)
- High Speed ARM Processor
- High Speed sensor conversion (24 bit, up to 4000 samples/sec)
- 5 Analogue and 1 Digital input channels
- Built-in Auto engage function
- Auto reverse from limit switch activation
- Built-in auto protection for sensor limits
- Shearing to failure in compression
- User configurable data logging
- Live view of sensor readings and status
- Live Data Views, Graphs and Tables
- Results Data export to Excel for external manipulation
- Export & Import of Test scripts