

# Unsaturated Shear Testing System

The VJ Tech Unsaturated Shear Testing System is used to carry out unsaturated shear tests on soil samples up to 75 mm (square or round) with a height of 25 mm in a sealed sample chamber.

The Unsaturated Shearbox is bench mounted and is of rugged construction designed for lab environments. The microprocessor based system incorporates a stepper motor drive for horizontal load, a large graphical display, a touch sensitive keypad and forward/reverse travel limit switches. The pneumatic loading concept is utilised for applying the vertical load to the sample (compressed air supply required).

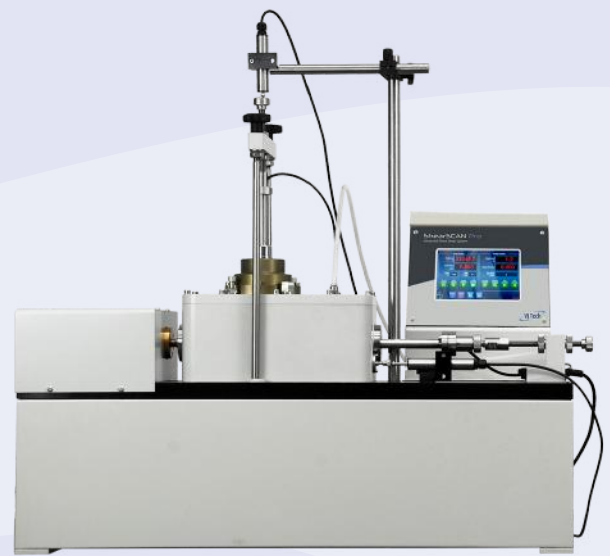
When testing, suction is maintained using a Pneumatic APC at the top of the sample and a Hydraulic APC at the base. Built in data acquisition automates the testing by recording the horizontal and vertical loads and displacements.

## Features

- Inbuilt 4-Channel data logging
- 10kN Internal Vertical Load cell included
- 5kN Internal Horizontal Load cell included
- Stepper motor control for horizontal loading
- Built-in graphics display and keypad for local operation
- Pneumatic actuator for Vertical displacement and load
- Sealed shearbox sample chamber
- Sample sizes from 50 to 75 mm (square or round)
- Built-in displacement and overload protection
- RS232 interface for PC control

## Specifications

Vertical Load	10 kN
Horizontal Shear Force	5 kN
Horizontal Travel (nominal)	20 mm
Vertical Travel (nominal)	10 mm
Speed Range (Standard)	0.00001-10.0000 mm/min
Dimensions (W x D x H)	840 x 460 x 800 mm
Weight	90 kg
Electrical Requirement	220-240VAC 50/60Hz 1ph
PC Interface	RS232



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## Clisp Studio - csUnsatShear Software

- Easy Test configuration using the built in wizard
- Direct and Residual Shear capability
- Automation of Consolidation and/or Shear stages
- Transducer Configuration and Calibration
- Live views of transducer readings & calculated parameters
- Live graphs and tabulated data
- User configurable views, tables and graphs
- Easy data export to commercial spreadsheets
- Entire test script export & import
- Data storage in an SQL database
- Configurable Test automation
- Customised Reports (at additional cost)

## Ordering Information & Specification

<b>VJT2570</b>	Unsaturated Soil Testing Shearbox
<b>VJT2266</b>	Hydraulic Automatic Pressure Controller 1 MPa (200cc)
<b>VJT2250</b>	Pneumatic Automatic Pressure Controller 1 MPa
<b>VJT0271</b>	25 mm LSCT Displacement Transducer
<b>VJT0270</b>	10mm LSCT Displacement Transducer
<b>VJT-csUSHEAR</b>	Clisp Studio Unsaturated Shear Software