

ACONS Pro Motorised Automatic Constant Rate of Strain System

Related Standards: ASTM D4186-06

The ACONS Pro Motorised Automatic CRS System uses a stepper motor to generate Force for Constant Rate of Strain (CRS) testing and comes with either a 15 kN or 50 kN external Load Cell & Ethernet or USB Interface for computer control.

The ACONS Pro Motorised Automatic Consolidation Frame is used with the Multi-Purpose Consolidation Cell for samples up to 70 mm (particular sizes on request), with either the included Load Cell or an Internal Submersible Load Cell for CRS strain and stress testing. Back Pressure is provided by an Automatic Pressure Controller and Pore Water Pressure is measured with a Pressure transducer. The frame can also be used with the same Cell for SD-SWCC and Consolidation tests with additional components (see separate datasheets).

Features

- Integrated 7" Touchscreen Colour Display for Standalone use without PC Control if required
- On-board data logging with large data storage (up to 14 million records) using SD card (8GB standard)
- Data export to PC for manipulation within Excel
- High Speed ARM Processor
- Includes Load cell (which is removed when a CRS cell with an ISLC is used)
- Frame can be used with our interchangeable Cell Kits for SD-SWCC & Consolidation tests (see separate datasheets)
- High Speed sensor conversion (24 bit, up to 4000 samples/sec)
- Up to 4 input channels (1 x digital & 2 x analogue on ACONS Pro & 1 analogue on Pro APC)
- Input socket for an Automatic Solenoid Valve on Pro APC
- Built-in live data table and graphs
- Built-in Auto engage function
- Auto reverse from limit switch activation
- Built-in auto protection for sensor limits

Specifications

Maximum Frame Capacity	15 kN or 50 kN
Resolution	0.1N
Accuracy	0.15% FRO
Adjustable Displacement Rate	0 - 10.0000 mm/min
Connectivity	Ethernet or USB Interface
Power Supply	DC Adaptor (Output 24V DC, Input 90-240V, 50/60Hz, 1ph.)



ACONS Pro 15 kN Motorised Automatic CRS System

Ordering Information

ACONS Pro Frames (Please select one)

- VJT0650M2-P** ACONS Pro Motorised Automatic Multi-Purpose Frame (15 kN)
- VJT0650M2-PHL** ACONS Pro (High Capacity) Motorised Automatic Multi-Purpose Frame (50 kN)

Multi-Purpose Cell & Kit

- VJT0651-H** Multi-Purpose Consolidation Cell for up to 70 mm Samples
- VJT0651-H-CRS70** Multi Purpose Consolidation Cell - CRS Kit 70 mm Diameter

Automatic Pressure Controller

- VJT2266-P** Pro 1 MPa Automatic Pressure Controller

Internal Submersible Load Cell

- VJT0353B/MPC** 25 kN Internal Submersible Load Cell with 25 mm diameter Ram

Displacement Transducers (Please select one)

- VJT0110-MIT** Digital Dial Gauge, 25 mm X 0.001 mm with 2 metre cable & Plug
- VJT0271** LSCT Displacement Transducer, 25 mm X 0.001 mm with 2 metre cable & Plug

Transducer Bracket (only required for LSCT Transducer)

- VJT0281C** Transducer Bracket for LSCT transducer

Pressure Transducer

- VJT0250-G** 10 bar Pressure Transducer
- VJT0280** De-Airing block with valve for pressure transducer

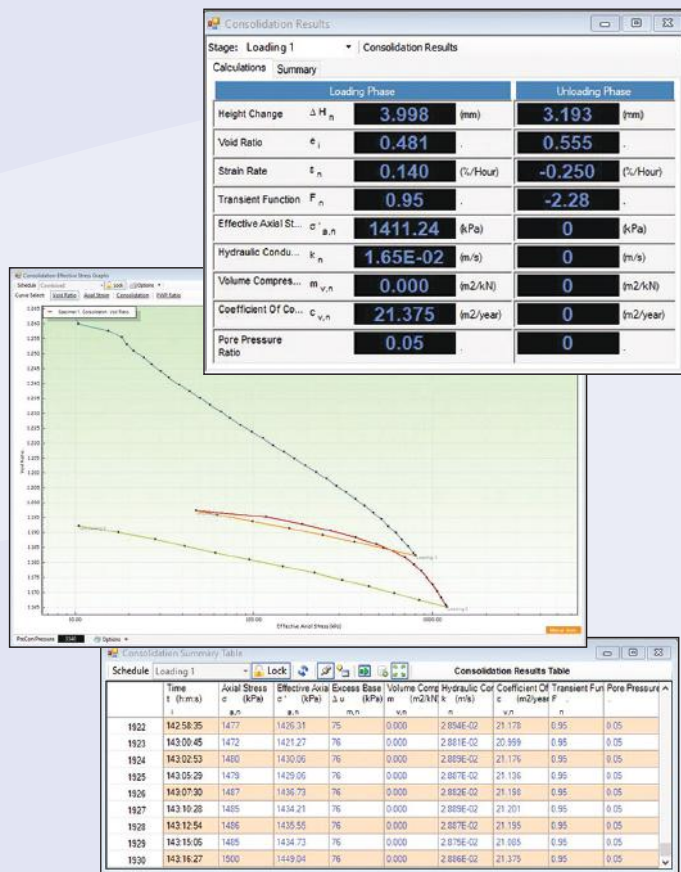
Clisp Studio Software Required

- VJT-csCRS** Clisp Studio CRS Software

VJT-csCRS: Clisp Studio Constant Rate of Strain Software

The VJ Tech Clisp Studio CRS (Constant Rate of Strain) Software module enables the User to perform one-dimensional consolidation tests using controlled strain loading. The software conforms to ASTM D4186-06.

- User defined Saturation cycles (ramp and check)
- User defined Consolidation cycles (Loading, Holding and Unloading phases)
- Easy instrument and equipment setup and calibration
- Easy test setup using wizard style Assistant
- Automated Test Control
- User configurable data logging
- Live view of sensor readings, status and calculated data
- Live graphical and tabular display of logged and calculated data
- Data export to Excel and test script export & import
- User configurable views, graphs and tables
- Customised presentation reports on request



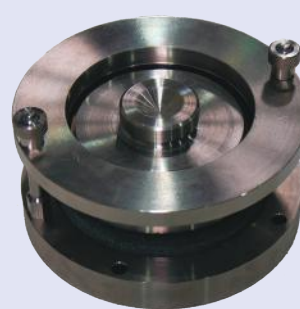
Multi-Purpose Consolidation Cell

VJ Tech's Multi-Purpose Consolidation Cells are precision made specifically for soil testing laboratories and can be used for samples up to 70 mm. They are capable of withstanding confining pressures up to 2000 kPa and are designed with hard anodised aluminium top and base plates to minimise corrosion.

They are able to perform Oedometer, Constant Rate of Strain (CRS) and Stress Dependent Soil Water characteristic Curve (SD-SWCC) tests using separate Cell Kits. They have a port available for a temperature probe and an Internal submersible load cell can also be fitted (supplied separately).



VJT0651-H - Multi-Purpose Consolidation Cell (fitted with CRS Cell Kit)



VJT0651-H-CON570 -
MPCC Consolidation Kit (70 mm)



VJT0651-H-UNSAT70 - MPCC
UNSAT Kit (70 mm)