

ACONS Pro – Motorised Automatic Consolidation System

**Related Standards : BS EN ISO 17892-5 : (2017);
BS1377-5 & 6, ASTM D2435-04; AS 1289.6.6.1-1998;
XP P94-090-1**

Our new ACONS Pro Motorised Automatic Consolidation System makes things easier for automated Consolidation testing by using a stepper motor, so that a compressed air supply is not required.

It is of compact design with a small footprint, thus taking up far less space in the laboratory than a manual oedometer - and bulky and heavy weights are now a thing of the past.

The System can be controlled from a PC or laptop running our renowned Clisp Studio software via USB or Ethernet interface, or it can be used in Standalone mode using the 7" touchscreen display for data input and Test control.

Features

- Includes 15 kN Load cell
- USB or Ethernet Interface for PC control
- 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
- Accepts consolidation cells from 50 mm to 100 mm
- High Speed sensor conversion (24 bit, up to 4000 samples/sec)
- Up to 3 input channels (1 x digital & 2 x analogue)
- Built-in live data table and graphs
- Built-in Auto engaging function with definable engage value
- Built-in auto protection for sensor limits
- Multiple ACONS Pros can be controlled from single PC

Advanced Features for both Systems

With additional components, both System Frames are capable of:

- **Constant Rate of Strain testing**
- **Soil Water Characteristic (SD-SWCC Testing)**
- **Triaxial Testing**



ACONS Pro Motorised Automatic Consolidation System

Specifications

Sample Dia. (mm)	35	50	2.5"	70	75	100
Maximum Stress (kPa)	15590	7639	4736	3897	3395	1910
Maximum Frame Capacity	15 kN					
Resolution	0.1 N					
Accuracy	0.15% FRO					
Adjustable Disp. Rate	0-10.0000 mm/min					
Fast Approach Speed	40.000 mm/min					
Connectivity	USB or Ethernet					
Power Supply	DC Adaptor (Output 24VDC, Input 90-240V, 50/60Hz, 1ph.)					
Dimensions (W x D x H)	330 mm x 290 mm x 640 mm					
Weight	31.6 kg Nominal					

ACONS Pro (High Load) – Motorised Automatic Consolidation System

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XP P94-090-1**

Our new ACONS Pro (High Load) Motorised Automatic Consolidation System is a more powerful version of the ACONS Pro System.

It has all the facilities of the ACONS Pro., but features an integrated 50 kN Load Cell for more powerful Consolidation.

Different Features for High Load System

- Larger and Stronger Frame
- Includes 50 kN Load cell

ACONS Pro System Configurations

ACONS Pro Frames (Please select one)

- VJT0650M-P** ACONS Pro Motorised Automatic Consolidation Frame (15 kN)
- VJT0650M-PHL** ACONS Pro (High Capacity) Motorised Automatic Consolidation Frame (50 kN)

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)

- VJT0284AC** Transducer Bracket for LSCT transducer

Clisp Studio Software Required

- VJT-cs0D0** Clisp Studio Oedometer Software

Consolidation Cells Required

Consolidation Cells listed on next page



ACONS Pro (High Load) Motorised Automatic Consolidation System

ACONS Pro High Load Specifications

Sample Dia. (mm)	35	50	2.5"	70	75	100
Maximum Stress (kPa)	51975	25471	15788	12994	11317	6362
Maximum Frame Capacity	50 kN					
Resolution	0.1 N					
Accuracy	0.15% FRO					
Adjustable Disp. Rate	0-10.0000 mm/min					
Connectivity	USB or Ethernet					
Power Supply	DC Adaptor (Output 24VDC, Input 90-240V, 50/60Hz, 1ph.)					
Dimensions (W x D x H)	280 mm x 400 mm x 640 mm					
Weight	68 kg Nominal (frame)					

VJT-csODO: Clisp Studio Oedometer Software

Consolidation Cells



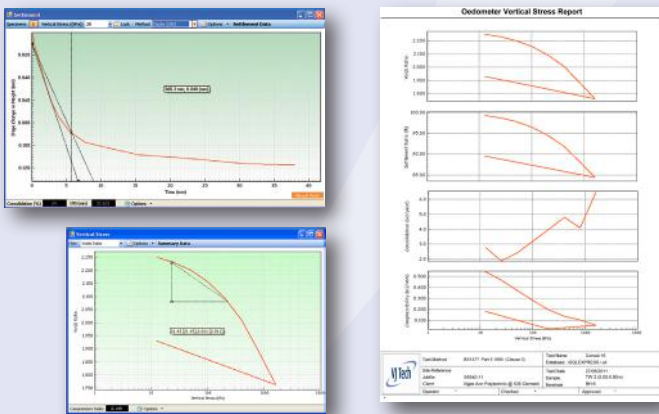
Our fixed ring cells are made from corrosion-resistant material. The soil sample is placed on the lower porous disc with the cutter ring surrounding it.

The cell ring then clamps down the cutter ring and the pressure pad (which has the upper porous disc attached to it) is placed over the sample. The whole of this assembly is enclosed within a Perspex cylinder.

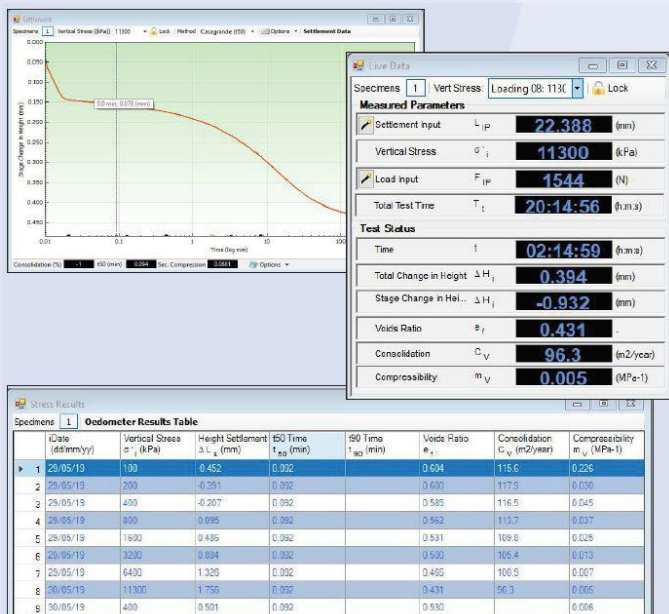
Features are Common for both Systems

- User defined loading & unloading increments
- Automatic loading (subject to software)
- On screen measurement of T50 & T90 values
- Live Tabular display of logged and calculated data
- Live Graphical display of logged and calculated data
- User defined views/graphs/tables
- Standard predefined presentation reports
- Export of data to Excel and test export & import
- Customised reports (at additional cost)

Results Data for High Load System



Results Data for High Load System



Cell Accessories

Sample Diameter	50 mm	2.5"	70 mm	75 mm	100 mm
Complete Cell	VJT0655	VJT0660	VJT0651	VJT0665	VJT0665-100
Upper Porous Disc	VJT0656	VJT0661	VJT0652	VJT0666	VJT0666-100
Lower Porous Disc	VJT0657	VJT0662	VJT0653	VJT0667	VJT0667-100
Cutting Ring	VJT0658	VJT0663	VJT0654	VJT0668	VJT0668-100
Calibration Disc	VJT0659	VJT0664	VJT0649	VJT0669	VJT0669-100



ACONS Pro "7" Touchscreen Colour Display Control Screen