

ACONS Pro – Motorised Automatic Consolidation System

Related Standards

| | |
|-------------------|--|
| British | BS EN ISO 17892-5 : 2017 ; BS1377-5 : 1990 : (Clause 3) |
| American | ASTM D2435-04, ASTM D2435-11 |
| Australian | AS1289.6.6.1 : 1998 |
| French | XP P94-090-1 |

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 (16 GB standard), able to store thousands of Tests, each with thousands of data points
- Data export to PC for manipulation
- Accepts consolidation cells from 50 mm to 100 mm
- High Speed sensor conversion (24 bit, up to 5000 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

* for logging only, not closed-loop control



ACONS Pro Motorised Automatic Consolidation System

Our new ACONS Pro Motorised Automatic Consolidation System uses a stepper motor, so that a compressed air supply is not required.

It is of compact design with a small footprint meaning bulky and heavy weights are now a thing of the past.

Specifications

| | | | | | | | | | |
|------------------------|---|-------|------|------|------|------|------|------|--------------|
| Sample Dia. (mm) | 35 | 38 | 50 | 60 | 2.5" | 70 | 75 | 100 | |
| Maximum | 15590 | 13226 | 7639 | 5035 | 4736 | 3897 | 3395 | 1910 | Stress (kPa) |
| 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) | 280 mm x 320 mm x 640 mm | | | | | | | | |
| Weight | 31.6 kg Nominal | | | | | | | | |

ACONS Pro (High Load) – Motorised Automatic Consolidation System

Related Standards

| | |
|-------------------|--|
| British | BS EN ISO 17892-5 : 2017 ; BS1377-5 : 1990 : (Clause 3) |
| American | ASTM D2435-04, ASTM D2435-11 |
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| French | XP P94-090-1 |

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

Different Features for High Load System

- Larger and Stronger Frame
- Includes 50 kN Load cell

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 (High Load) Motorised Automatic Consolidation System

ACONS Pro High Load Specifications

| | | | | | | | | | |
|------------------------|---|-------|-------|-------|-------|-------|-------|------|--------------|
| Sample Height | 20 mm | | | | | | | | |
| Sample Dia. (mm) | 35 | 38 | 50 | 60 | 2.5" | 70 | 75 | 100 | |
| Maximum | 51975 | 44087 | 25471 | 17684 | 15788 | 12994 | 11317 | 6362 | Stress (kPa) |
| 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) | 320 mm x 400 mm x 770 mm | | | | | | | | |
| Weight | 68 kg Nominal (frame) | | | | | | | | |

ACONS Pro System Configurations

Consolidation Cells

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)

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

LSCT Transducer Bracket is included as standard (but if replacement is required)

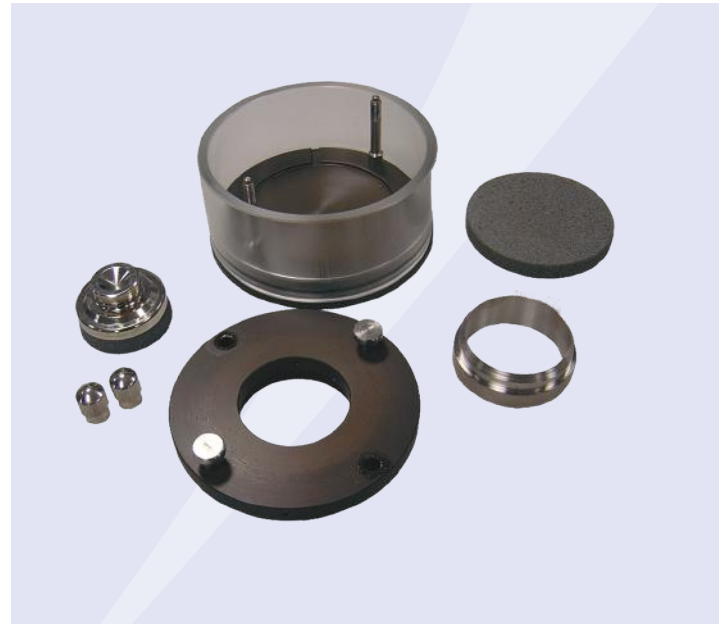
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|---------------------|--|
| VJT0284AC | Transducer Bracket for LSCT transducer (15 kN) |
| VJT0284AC-HL | Transducer Bracket for LSCT transducer (50 kN) |

Clisp Studio Software Required

| | |
|------------------|---------------------------------|
| VJT-csODO | Clisp Studio Oedometer Software |
|------------------|---------------------------------|

Consolidation Cells Required

Consolidation Cells listed on next page



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 (with the upper porous disc attached to it) is placed over the sample. The whole of this assembly is enclosed within a Perspex cylinder.

Cell Accessories

| Sample Diameter* | 38 mm | 50 mm | 60 mm | 2.5" | 70 mm | 75 mm | 100 mm |
|-----------------------------|---------------------|-------------------|---------------------|-------------------|-------------------|-------------------|---------------------|
| Complete Cell | VJT0655-38 | VJT0655 | VJT0655-60 | VJT0660 | VJT0651 | VJT0665 | VJT0665-100 |
| Perforated Loading Cap** | MET1621-P | MET1606-P | MET1620-P | MET1610-P | MET1604-P | MET1608-P | MET1614-P |
| Upper Porous Disc | VJT0655-38UP | VJT0656 | VJT0655-60UP | VJT0661 | VJT0652 | VJT0666 | VJT0667-100U |
| Lower Porous Disc | VJT0655-38LP | VJT0657 | VJT0655-60LP | VJT0662 | VJT0653 | VJT0667 | VJT0667-100 |
| Cutting Ring | VJT0655-38CR | VJT0658 | VJT0655-60CR | VJT0663 | VJT0654 | VJT0668 | VJT0668-100 |
| Calibration Disc | VJT0655-38CD | VJT0659 | VJT0655-60CD | VJT0664 | VJT0649 | VJT0669 | VJT0669-100 |
| Sintered Bronze Porous Disc | VJT0655-38SB | VJT0657-SB | VJT0655-60SB | VJT0660-SB | VJT0651-SB | VJT0665-SB | VJT0653-SB |

* 35 mm accessories available on request

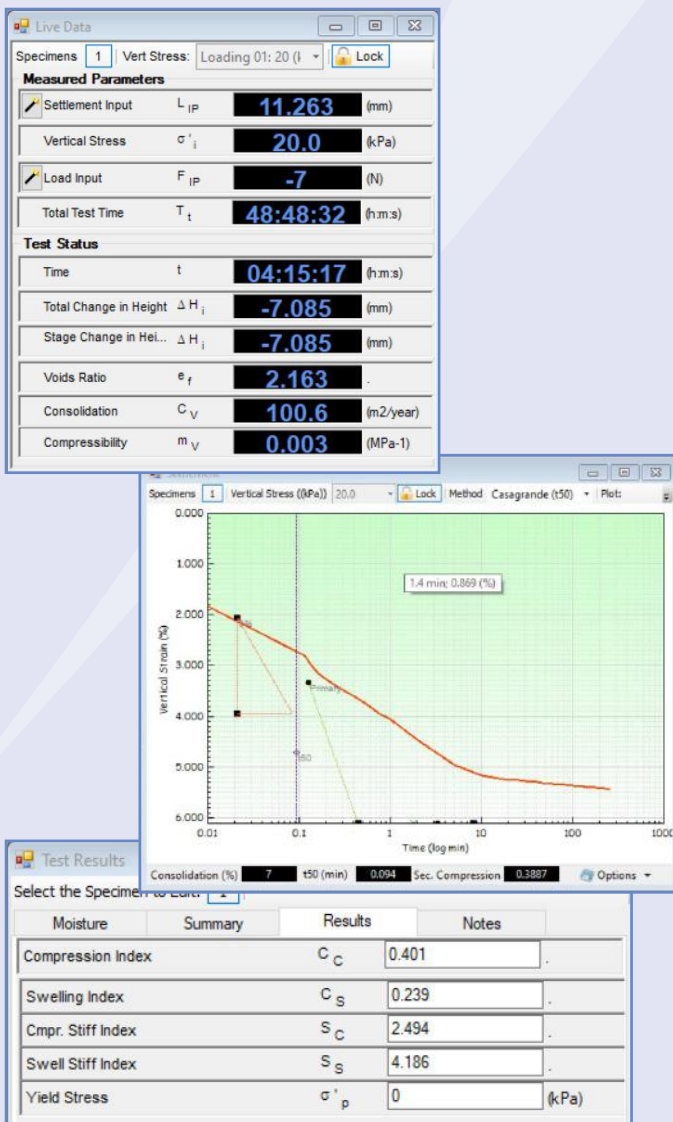
** Porous Stone not included

VJT-csODO: Clisp Studio Oedometer Software

Features common to 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)

csODO Live Data & Results



ACONS Pro "7" Touchscreen Colour Display Control Screen

csODO Summary Reports

