

AUTOTRIAXQUBE – Système de test triaxial entièrement automatique tout-en-un



Système de test triaxial automatique révolutionnaire tout-en-un intégrant les nombreux composants des tests triaxiaux en un seul système compact. Conçu pour rendre les tests triaxiaux plus faciles que jamais, l'AUTOTRIAXQube s'intégrera parfaitement dans n'importe quel laboratoire et complétera votre capacité de test existante.

Fonctionnalités

- **Gain de place** : moins d'un mètre carré.
- **Facile à installer** : Pas besoin de panneaux externes, de réservoir ou de connexion hydraulique - il suffit de connecter l'AUTOTRIAXQube à l'alimentation en eau et en électricité et de commencer les tests.
- **Désaération rapide de l'eau** : La pompe à vide, le réservoir, les vannes de régulation et le système de cavitation intégrés désaéreront l'eau rapidement et efficacement jusqu'à des niveaux d'air dissous acceptables pour les méthodes d'essai triaxiales.
- **Cellule triaxiale conviviale** : Le système de levage intégré avec un châssis à trois colonnes internes facilite la manipulation de la cellule triaxiale.
- **Système de vide intégré** : pour un processus de préparation des échantillons rationalisé et rapide.
- **Fiable et précis** : Les procédures d'essai standardisées réduisent les incohérences dues aux variables de l'opérateur ou à d'autres facteurs externes imprévisibles.
- **Efficace et reproductible** : Effectuez l'ensemble du test, de la saturation à la panne, en mode entièrement automatique sans aucune interruption, ce qui permet de gagner du temps, de minimiser l'intervention de l'opérateur tout en augmentant la précision.
- **Polyvalent et extensible** : Commencez à effectuer des tests de perméabilité en ajoutant une troisième ligne de pression et des mesures avancées telles que l'élément de pliage ou les capteurs de contrainte locaux.

Spécifications

- **Capacité de charge maximale** : 25 kN.
- **Taille maximale de l'échantillon** : 70 mm de diamètre x 140 mm de hauteur.
- **Pression de confinement maximale** : 3 500 kPa.
- **Contre-pression maximale** : 3 500 kPa.
- **Résolution en pression** : 0,1 kPa.
- **Capacité maximale** : 250 cc.
- **Résolution volumique** : 0,001 cc.
- **Course du piston** : 100 mm.

- **Réservoir de désaération intégré** : 20 litres.
- **Sensors**: Submersible load cell (25 kN), displacement transducer (50 mm), Pressure transducers (3500 kPa).
- **Units**: SI or US Customary.
- **110, 220V 50-60 Hz, 1 pH.**

Highlights

Secure Triaxial Cell Lifting System

The new lifting mechanism allows the operator to raise the cell to its highest position and rotate it through 90 degrees, until it's safely held in place with a magnetic latch. This removes the need to lift the total weight of the cell while freeing space on the work bench for sample preparation tools.

Built-in Ingenious Hydraulic System

Speeds up the time required to set-up the system correctly (water circuit saturation, pressure system and triaxial cell) avoiding any possible damage to the sample already positioned in the triaxial cell.

User-friendly Software

The user-friendly software and desktop PC* allow the operator to control all phases of testing over a fast Ethernet connection. The AUTOTRIAXQube can also connect using Wi-Fi which is useful for remote training and support. If you already use our flexible and renowned AUTOTRIAX software as part of your existing system, there is no need to invest in any additional software as the AUTOTRIAXQube can easily be integrated and controlled as an independent system by your existing PC and software:

- Effective/total stress: (CU/CAU**, CD/CAD**, UU) (Included in the machine)
- Stress path (to be ordered separately)
- k_0 test (to be ordered separately)

* To be ordered separately. Please note that an optional all-in-one PC model is also available. ; ** Anisotropic consolidation according to EN 17892:9 is available. For anisotropic consolidation, a vacuum top cap is required.

Universal Accessories Compatibility

All existing accessories already in use with the 70 mm banded triaxial cell (28-WF4070) are compatible with the AUTOTRIAXQube. See accessories

- Permeability test (*Please refer to accessories*)
- Unconfined test (*Please refer to accessories*)
- Bender elements (*Please refer to related products*)
- On Sample (*Please refer to related products*)

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Models

- 29-WF40Q02/ AUTOTRIAXQube All-in one fully automatic triaxial testing system. 110-220V, 50-60Hz, 1ph

Accessories

Accessories 70mm sample

- 28-WF4071/7/ Pedestal 70mm diameter two pore pressure ports for 70mm triaxial cell
- 28-WF4072/A/ Top cap 70mm diameter with 2 drainage tubes
- 28-WF4072/AV/ Vacuum top cap 70mm diameter with 2 drainage tubes
- 28-WF4073/ Disc perspex 70mm diameter
- 28-WF4074/ Pair of porous disc 70mm diameter
- 28-WF4075/ Rubber Membrane 70mm diameter x 235mm long (pack of 10)
- 28-WF4076/ O ring 70mm diameter (pack of 10)
- 28-WF4071/A/ Membrane Placing Tool for 70mm samples
- 28-WF4071/B/ O Ring Placing Tool for 70mm samples
- 28-WF4071/D/ Two part split mould for 70mm diameter samples
- 28-WF4071/E/ Filter Drains (pack of 50) for 70mm samples
- 28-WF4071/F/ Filter discs for 70mm dia sample (pack of 100)
- 28-WF4071/G/ Hand sampler complete of cutter, dolly and receiver for 70mm samples

- 28-WF4071/B/ Hand sampler complete of cutter, dolly and receiver for 70mm samples
- 28-WF4071/H/ Two parts split former with vacuum attachment for 70mm sample

Accessories 50mm sample

- 28-WF4051/7/ Pedestal 50mm diameter two pore pressure ports for 70mm triaxial cell
- 28-WF4052/A/ Top cap 50mm diameter with 2 drainage tubes
- 28-WF4052/AV/ Vacuum top cap 50mm diameter with 2 drainage tubes
- 28-WF4053/ Disc perspex 50mm diameter
- 28-WF4054/ Pair of porous disc 50mm diameter
- 28-WF4055/ Rubber membrane 50mm diameter x 200mm long (pack of 10)
- 28-WF4056/ O ring 50mm diameter (pack of 10)
- 28-WF4051/A/ Membrane placing tool for 50mm samples
- 28-WF4051/B/ O Ring placing tool for 50mm samples
- 28-WF4051/D/ Two part split mould for 50mm diameter sample
- 28-WF4051/E/ Filter drains (pack of 50) for 50mm samples
- 28-WF4051/F/ Filter discs for 50mm dia sample (pack of 100)
- 28-WF4051/G/ Hand sampler complete of cutter, dolly and receiver for 50mm samples
- 28-WF4051/H/ Two parts split former with vacuum attachment for 50mm sample

Accessories 38mm sample

- 28-WF4031/7/ Pedestal 38mm diameter two pore pressure ports for 70mm triaxial cell
- 28-WF4032/A/ Top cap 38mm diameter with 2 drainage tubes
- 28-WF4032/AV/ Vacuum top cap 38mm diameter with 2 drainage tubes
- 28-WF4033/ Disc Perspex 38mm diameter
- 28-WF4034/ Pair of porous disc 38mm diameter
- 28-WF4035/ Rubber membrane 38mm diameter x 150mm long (pack of 10)
- 28-WF4036/ O ring 38mm diameter (pack of 10)
- 28-WF4031/A/ Membrane Placing tool for 38mm diameter samples
- 28-WF4031/B/ O Ring Placing Tool for 38mm diameter samples
- 28-WF4031/D/ Two part Split Mould for 38mm diameter sample
- 28-WF4031/E/ Filter drains (pack of 50) for 38mm samples
- 28-WF4031/F/ Filter discs for 38mm dia sample (pack of 100)
- 28-WF4031/G/ Hand sampler complete of cutter, dolly and receiver for 38mm samples
- 28-WF4031/H/ Two parts split former with vacuum attachment for 38mm sample

Test Software

- 29-WFD1A2/SW2/ Activation code for Stress path software with manual and automatic performance steps.
- 29-WFD1A2/SW3/ Activation code for Ko software
- 29-WFD1A2/SW5/ Activation code for soil triaxial Permeability test software including manual and automatic mode test.

All-in one PC

- 29-WF40Q02/PC/ AUTOTRIAXQube All-in one PC Assembly 110-220V, 50-60Hz, 1ph

Permeability option

- 29-WF40Q02/PM/ AUTOTRIAXQube upgrade kit for performing permeability test. 110-220V, 50-60Hz, 1ph

Access Ring

- 29-WF40Q02/AR/ AUTOTRIAXQube - Access ring with six port for using bender elements or on sample transducers.

Standards

- **ASTM D2850**
- **ASTM D4767**
- **ASTM D7181**
- **BS 1377:6**
- **BS 1377:7**
- **BS 1377:8**
- **EN 17892-8**
- **EN 17892-9**