

## DATA SHEET

# Standard Triaxial System with External/Expandable Digital Data Acquisition



Standard triaxial system external/expandable data acquisition and pressure/volume controller

## General description

Standard triaxial system with external data acquisition is the expandable compact solution for performing effective and total stress. Data acquisition can be shared with other soil testing equipment. (e.g. Consolidation, shear, permeability).

A typical standard triaxial system with external data acquisition system includes:

### Load frame:

- *TRIAx* specifically designed for triaxial applications and is ideal for commercial laboratories that need a versatile machine capable of performing a wide range of tests. (Max sample sizes: 70 mm)
- *TRITECH 50 kN or 100 kN* TRITECH original high-performance load frames for triaxial tests, ideal solution for advanced and research laboratories that want to perform high quality tests at .

### Triaxial cell with accessories:

- Standard triaxial cell with dedicated accessories for performing and preparing sample from 35 mm to 100 mm diameter.
- Banded triaxial cell with dedicated accessories for performing and preparing sample from 38 to 150 mm diameter

### Automatic data acquisition system with digital measurements:

- GEODATALOG 8; it works directly connected to a PC. Data are automatically transferred to the PC in real time for live plotting and monitoring of the tests in progress.

### Pressure system:

- Hydromatic standalone pressure/volume controller, water pressure source and volume change controller for cell and back pressure.
- Air/water interface with air compressor and air filter

**Template for data processing and reporting:** geotechnical Geo-Analysis-Templates suitable for real time data processing and printout of test certificates according to the most important international Standards.

Standard triaxial configuration with external data acquisition can be used for performing additional test such as CBR, Unconfined and CRS, Permeability.

More than 300 system configurations are available depending on type of test, sample size, pressure system. Please contact us for a complete offer.

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### Main features

- Expandable solution, suitable not only for **standard triaxial testing** (effective/total stress) but also for **other type of soil testing**;
- **PC software for remote calibration** of the channels and fully comprehensive data acquisition management;
- **Multiple and flexible triaxial configuration** (e.g. one frame and three cells) to perform simultaneously saturation, consolidation and monotonic shear;
- Data acquisition shared with other soil testing equipment: **the transducers can be grouped and combined by the user for matching different applications**;
- Additional package for data processing and reporting, fully compliant with **ASTM and BS standards**.

#### Additional features with Hydromatic Standalone solution:

- **Easier installation and saving space**: compressed air apparatus, control panels and ancillary air/water systems no longer required;
- **Closed loop automatic control** and management of **cell and back** pressure;
- User friendly **6" touch screen colour panel** for local control of pressure and measurement in real time of pressure and volume change;
- **Ergonomic and versatile support** of the control panel to be adjusted according to the user's preferences;
- **LAN connection to the GEODATALOG8** pressure and volume measurements **can be easily synchronized** with the other readings and transmitted at the same time to a PC where the DATACOMM 2 software is installed.

### Standards

- BS 1377:6
- BS 1377:7
- ASTM D2850
- ASTM D4767
- ASTM D5084
- BS 1377:8
- ASTM D7181
- EN 17892-8
- EN 17892-9

### Specifications

**Capacity:** 50 kN and 100 kN

**Speed range:** 0.00001 – 99.99999 mm/min (TRITECH) or 0.00001 – 50.8 mm/min (TRIAX)

**Working pressures:** 3500 or 1700 kPa (HYDROMATIC) or 1000 kPa (AIR/WATER INTERFACE and TRIAXIAL PANEL)

**Specimen range:** 35,38,50,70,100 mm (STANDARD TRIAXIAL CELL) or 35,38,50,70,100,150 mm (BANDED TRIAXIAL CELL)

**Pressure/volume controller touch screen:** resolution 640x480 pixel; 65K colours; Contrast ratio 250: 1

**Effective resolution:** 131000 points

**LAN communication with PC**

**Sampling rate:** 500 readings per second.

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Standard triaxial system external/expandable data acquisition and air/water interface pressure system