# TRITECH Triaxial load frame with 4 built-in channels


## TRITECH

- Ideal solution for advanced and research laboratories that require high productivity and high quality testing;
- Designed for advanced and research laboratories to perform UU, CU, CD (compression/extension) tests;
- Very wide variable speed range suitable to perform also unconfined, CBR and Marshall tests.
- Double control mode including machine and data acquisition via local touch screen display or from remote PC (not included) and software (included);
- USB port to connect a memory stick (included with the machine) for test data storage;
- Effective sampling rate up to 50 / sec;
- LAN communication;
- Automatic test start and stop according to preset conditions;
- Wide 5.7" waterproof touch screen color graphic display allowing machine control, live on screen data plot and tabulation;
- Local and remote transducers calibration through the dedicated software;
- Graphical and Numerical display of readings;
- Maximum compression capacity: 50 kN or 100 kN;
- Speed range from 0.00001 to 99.99999 mm/min;
- Maximum sample diameter (for triaxial testing): 150 mm;
- The quality of the design avoids vibrations that may affect the specimen or measurments accuracy

**Standards** BS 1377:7 | ASTM D2850 | ASTM D4767 | BS 1377:8 | NF P94 070 | NF P94 074 | CEN- ISO/TS 17892-9 | CEN- ISO/TS 17892-8 | ASTM D7181

WYKEHAM FARRANCE's electro-mechanical TRITECH machines are the original high-performance load frames for triaxial tests. Introduced by the company over 50 years ago, they have undergone continuous development and are the ideal solution for advanced and research laboratories that want to perform high quality tests at high levels of productivity.

Based on heavy duty triaxial load frames, with advanced electronics and high quality components, these frames are the top of the range currently available for triaxial testing on soils. The load frames are built around a robust twin chromed-column structure, ensuring extremely high rigidity. The loading platen is made from stainless steel.

Four models are available depending on the max capacity and if equipped or not with a built-in data acquisition.

The models are fitted with 4 built-in channels and data acquisition, to be used either in stand-alone mode or connected to a PC.

TRITECH 4C are the ideal solution for advanced and research laboratories who require high quality and productivity testing. This model is a stand alone machine that can perform compression/extension triaxial tests, unconfined, CBR, Marshall and general compression tests.

These load frames are equipped with a wide user friendly touch screen display, side mounted and very ergonomic allowing local control of the main functions and data acquisition.

In each model the panel and display are protected from water and dust.

The touch screen display is extremely versatile to start, pause and stop the test, to set up data recording mode, to show live readings of the transducers in real time and to perform calibrations. In addition a LAN connection and a dedicated software (included with the machine) allows remote control from the PC. In remote control mode the software allows the user to control the main functions via PC as well as to calibrate the channels with linear, polynomial and multi-coefficient calibration mode, and to display the readings.


*Triaxial load frame TRITECH 100 kN with 4 channels built in data acquisition model 28-WF4010/4C*

## Ordering information

**28-WF4005/4C**

Tritech50, Triaxial load frame 50 kN cap. with 4 channels built-in data acquisition 110-240 V, 50-60 Hz, 1 ph

**28-WF4010/4C**

Tritech100, Triaxial load frame 100 kN cap. with 4 channels built-in data acquisition 110-240 V, 50-60 Hz, 1 ph

## Accessories

**Triaxial cells**

Standard triaxial cells and accessories

Triaxial cells for advanced applications

**Digital Measurement instruments**

Axial strain displacement transducers

Submersible load cells - External load cells

Pressure transucers for triaxial test
Automatic volume change apparatus

**Pressure systems for triaxial testing**

Oil and water constant pressure system

Air/Water pressure system and controls panels

Hydraulic pressure controller

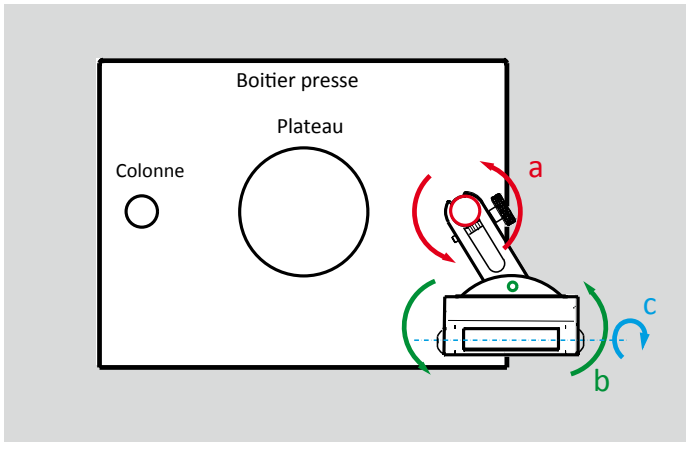
**Water de-airing system**

Complete de-airing water system

**Technical Specifications**

| Models | 28-WF4005/4C | 28-WF4010/4C |
|---|---|---|
| Maximum sample diameter, mm | 150 | 150 |
| Minimum testing speed, mm/min | 0.00001 | 0.00001 |
| Maximum testing speed, mm/min | 99.99999 | 99.99999 |
| Maximum compression force, kN | 50 | 100 |
| Maximum tensile force, kN | 5 | 5 |
| Minimum vertical clearance, mm | 335 | 390 |
| Maximum vertical clearance, mm | 1100 | 1140 |
| Horizontal clearance, mm | 364 | 498 |
| Platen diameter, mm | 158 | 158 |
| Platen travel, mm | 100 | 100 |
| Dimensions, mm (h x w x d) (approx.) | 1460 x 503 x 380 | 1813 x 586 x 515 |
| Power, W | 600 | 680 |
| Weight, kg (approx.) | 98 | 120 |

*Touchscreen control panel of TRITECH load frame*




*Touchscreen control pane Multi-jointed display support with four different adjustments I of TRITECH load frame*

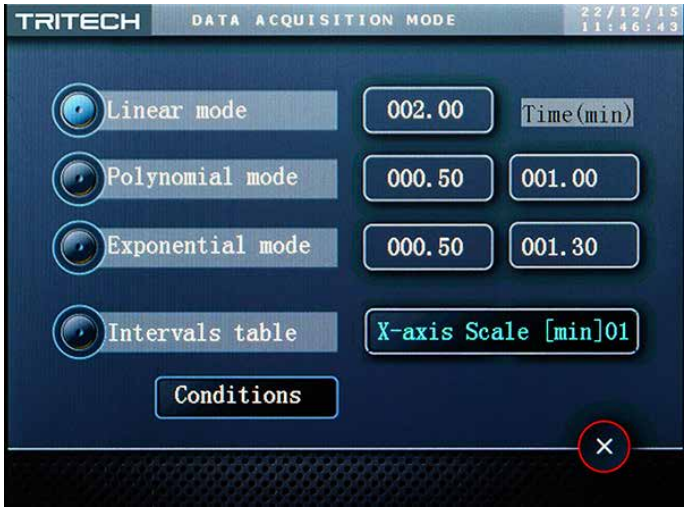

*Touchscreen display - switch on screen*


*MAIN MENU of touchscreen , four options can be selected: · Test run - to select logging intervals and test start/stop conditions, · Calibration: to perform the calibrations · Options - to set the date and time and IP address of the unit, to change the display language and to manage the USB memory stick · @info - to view CONTROLS company information, firmware version number, the serial number of the unit, and IP address and subnet mask for PC connection*

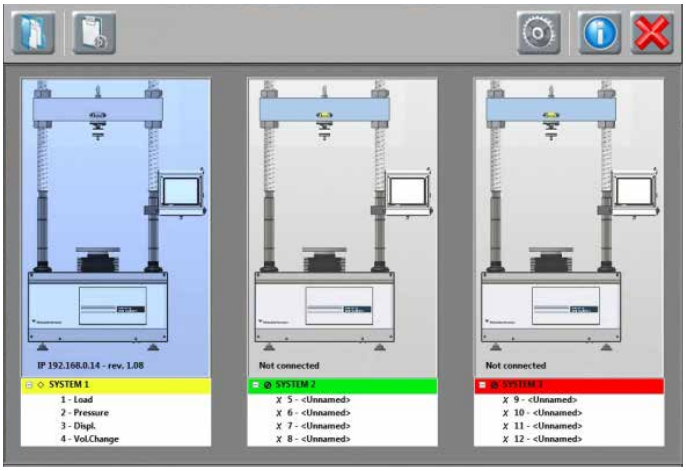
*The table shows the accessories required to perform the different tests allowed by the TRITECH machines*

| | | | |
|---|---|---|---|
| **UNCONFINED** | Digital | P0375/C | 1 |
| | | P0370 | 1 |
| | | T0104/81 | 1 |
| | | P0322 | 1 |
| | | T0108/5 | 1 |
| | | T0104/4 | 1 |
| | | WF4005/39** | 1 |
| **CBR** | Digital | P0375/C | 2 |
| | | P0375 | 1 |
| | | T0104/81 | 1 |
| | | P0322 | 1 |
| | | T0103/1 | 1 |
| | | WF4005/39** | 1 |
| **MARSHALL** | Digital | P0375/C | 2 |
| | | P0375 | 1 |
| | | T0104/81 | 1 |
| | | P0322 | 1 |
| | | T0104/10 | 1 |
| | | T0104/13 | 1 |
| | | B0033 | 1 |
| | | WF4005/39** | 1 |

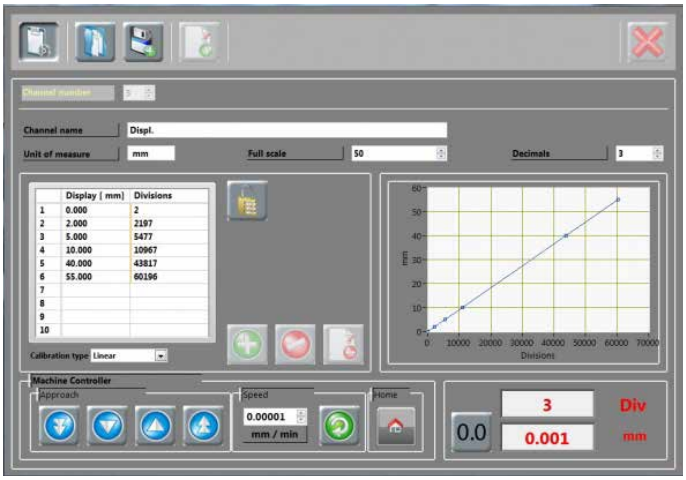

*Transducer live display screen during the test*




*Logging mode screen for setting the logging intervals for data acquisition.*




*Main panel software displays the connection status of any TRITECH load frames (up to 3) that are connected to the PC*




*Calibration panel displays transducer details and tabulated and graphical calibration data, and contains functions for performing new calibrations, loading archived calibrations, and uploading the data to the TRITECH unit.*