New testing equipment and services

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This month's round-up looks at new equipment from a number of manufacturers and a new bitumen testing service in the UK from global player Intertek - Kristina Smith reports

CONTROLS GROUP has unveiled new machines from each of its specialist divisions, including a new triaxial tester from its soil mechanics arm Wykham Farrance; an E-modulus tester from its concrete testing division; and an asphalt binder analyser from PAVELAB SYSTEMS, its asphalt division.

TRITECH is the result of 50 years of development of triaxial testing machines by Wykham Farrance. This latest model has been designed for advanced soil testing laboratories and research laboratories that require high-quality tests and high production rates. As well as triaxial tests, TRITECH can also be used for CBR, Marshall and other general tests.

Described by CONTROLS as 'top-of-the-range', TRITECH machines are based on heavy-duty triaxial load frames which have been designed to eliminate vibration, which can affect the specimen under test. They can be used as part of a computer-controlled automatic testing system or as a stand-alone unit under manual control.

A new soil testing system is available from the Wykham Farrance division of CONTROLS

TRITECH is equipped with built-in data acquisition with a touchscreen display mounted on the side. The panel and display are protected from water and dust by a waterproof membrane.

A LAN connection and dedicated software allows remote control from a PC. In remote control mode the software allows the user to control the main functions. Users can also calibrate the channels with linear, polynomial and multi-coefficient calibration mode, and display the readings.

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CONTROLS Group is offering a new Automatic digital mortar mixer with programmable mixing cycles

CONTROLS has designed its AUTOMAX E-Modulus, which determines Elastic Modulus and Poisson's Ratio, with the aim of achieving more accurate results. According to CONTROLS, the accuracy of the console depends on the precise control of oil flow by a double-stage hydraulic pump.

The firm's concrete division has also launched a new Automatic digital mortar mixer with programmable mixing cycles which conform to a variety of standards. And the recently introduced VICAMATIC-2 can then be used to automatically test the sample for setting time.

The AUTOMAX E-Modulus is compatible with small-capacity frames for testing cement and mortar specimens, and high-capacity frames for concrete blocks and cores. It can also be used for automatic compression, flexure and splitting tests on concrete and cement when connected to suitable testing frames. Tests can be set up to conform to various international standards, including DIN 1048/1, ASTM C469, BS 1881:121, ISO 6784 and UNI 6556.

From PAVELAB SYSTEMS, the PAVELAB50 is the second generation of automatic, closed-loop bitumen and binder extractors. It can be used either to determine the binder content in a sample, or to recover a bitumen sample which can then be used for tests such as penetration or softening.

The machine first separates bitumen and filler from the sample by washing with solvent and ultrasonic motion; the resulting liquid is centrifuged and the filler separated; the aggregates and filler are dried by forced air circulation and then the solvent recovered by condensation. The standard PABELAB50 can be upgraded with a method of weighing the sample at the end of each stage. The machine's software records the weights and makes automatic calculations.

PAVELAB SYSTEMS is also launching a new fully-automatic penetrometer, PIVOT, which conforms to all the main international standards. A stepper motor lowers the needle precisely and the starting point is detected automatically. The penetration test is performed and recorded automatically, according to the parameters defined by the user.

Also new for asphalt testing is the Rolling Thin Film Oven (RTFOT) which determines the resistance to hardening of an asphalt mix under the influence of heat and air. The oven has a touchscreen colour display control panel, including timer function, visual warnings and digital air flow indicator.

These machines will be on display at **bauma**, alongside the AMPT PRO, the latest generation Asphalt Mixture Performance Tester from CONTROLS' specialist division **IPC Global**, which was featured in the November/December 2015 issue of World Highways.

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