

















IF IT'S WORTH BUILDING, IT'S WORTH TESTING

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Rolling Thin-Film Oven 220-240V 50/60 Hz

Code: 46-4150/01 Product Group: Asphalt and Bitumen Ovens

The Rolling Thin-Film Oven (RTFO) procedure provides simulated short term aged asphalt binder for physical property testing. Asphalt binder is exposed to elevated temperatures to simulate manufacturing and placement ageing. The RTFO also provides a quantitative measure of the volatiles lost during the ageing process.

The exterior is constructed from sheet steel finished in an easy clean powder coated paint and the interior chamber is made from stainless steel.

The control system comprises of a microprocessor digital controller and overheat thermostat with calibrated scale and tamper-proof lock.

Further Information

- Complies to the requirements of ASTM D2872
- Internal dimensions (mm): 380 high x 480 wide x 440 deep
- External dimensions (mm): 800 high x 710 wide x 660 deep (add 40mm for door handle)
- Double wall construction with high density thermal insulation
- Non-rusting grade 304 stainless steel interior
- · Easy clean powder painted steel exterior in light grey (RAL 7035) textured finish
- Top mounted fan constructed with an air plenum as described in ASTM D2872
- Fitted with a squirrel-type fan blade for better uniformity of air and temperature distribution
- Equipped with air jet for blowing heating air into each bottle at its lowest point of travel
- Base mounted elements
- Vented to atmosphere
- · Single front opening, side hinged door with positive quarter turn latching mechanism
- · Double glazed window in door for viewing the test chamber

Top mounted controls comprise:

- Dual display microprocessor digital control
- Independent overheat thermostat
- Mains switch
- · Flow meter to control air flow
- Indicator lamps
- 1500 watts
- Supplied with built-in 305mm diameter vertical circulator carriage for 8 sample containers
- Glass samples rotate at 15 rpm ±0.2rpm (glass containers supplied separately)
- Temperature is controlled and pre-set at 163°C ± 1°C

Specification

Max Temp (°C) Dimensions: Internal (HxWxD) 163°C ± 1°C (preset) 380 x 480 x 440 mm

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Dimensions: External (HxWxD) Insulation Internal material Max power (W) 800 x 710 x 660 mm Double wall 304 stainless steel 1500





Pendulum Skid Resistance Tester

Code: 42-6000 Product Group: Skid Resistance Testing, Skid Resistance Testing

The Pendulum Skid Resistance Tester was originally designed in the 1940s in the USA, and further developed in the 1960s at the TRL (Transport Research Laboratory) for the testing of road surfaces.

The device measures the frictional resistance between a rubber slider mounted on the end of a pendulum arm and the surface to be tested. This provides road engineers with a method of checking the resistance of wet and dry surfaces to slipping and skidding, both in the lab and insitu.

It operates by a pendulum rotating about a spindle which is attached to a vertical pillar. At the end of the tubular arm a head of known mass is fitted with a rubber slider. The pendulum is released from a horizontal position so that it strikes the sample surface at a constant speed. The distance travelled by the head after hitting the sample is determined by the friction of the sample surface.

Further Information

Applications:

- Assessment of surface friction and skid resistance properties
- Testing of aggregates in the PSV (Polished Stone Value) test
- Testing of new road surface materials
- Testing of pedestrian pavements
- RTA (road traffic accidents)
- Litigation investigations

Features:

- Designed for lab and on site road surface testing
- Factory calibrated to EN1097-8
- Low friction arm, and lightweight pointer
- Supplied with 'F' scale for use with small slider set for 76mm slide length (PSV test)
- Highly repeatable
- Supplied with carrying case

Specification

Dimensions (WxDxH) Volume Weight

695 x 295 x 695 mm 0.15m3 30 kg





Gyratory Compactor to EN 12697-31, 10, ASTM D6925, SHRP M-002, AASHTO T312, inc. PC 220-240V 50Hz

Code: 45-6750/01 Product Group: Gyratory Compaction

One of the best methods of laboratory compaction is considered to be Gyratory for not only the material's assessment of compactibility, but also the production of test samples. The method achieves this by the application of a vertical stress, typically 600 kPa via platens to a mass of asphaltic mixture inside a 100 or 150mm diameter mould. Whilst platens are kept parallel and horizontal, the longitudinal axis of the mould is gyrated at a fixed angle to the vertical axis.

During the test process, the height of the specimen is measured automatically and the mixture density and void content are calculated.

Compaction data is displayed in real time (graphical and tabular) and is available for download to MS Excel(tm) The operator has the ability to choose whether to compact for a certain number of gyrations or until a target mixture density or void content is achieved.

Further Information

Features:

- Full compliance to EN 12697 part 10 and 31
- Configurable to comply with SHRP Superpave
- Both 150mm and 100mm moulds can be tested without any modification
- Automatic mould insertion and retraction
- · Cold mix (emulsion) materials can be compacted, with fluid collection facility
- Data acquisition and control via host desktop PC
- Export compaction data to MS Excel(tm)
- UKAS traceable factory calibration
- · Can accept moulds up to 300mm in height

Product Specification:

- · High stability steel frame with low flex and distortion
- A 95mm pneumatic cylinder
- Safety gates with interlock
- Specimen table
- Accurate stress control via high precision regulator
- High quality inverter for accurate speed control
- · Specimen height measurement via linear potentiometer
- Highly durable wheels for ease of movement
- 16bit control and data acquisition
- PC included

Software:



- User-friendly, intuitive and reliable Windows(tm) software
- 2 methods of compaction no. of gyrations and target density
- User guided step-by-step through compaction
- Real-time display of current height, density and void content
- Software communicates with the gyratory compactor via USB interface
- Utilities are included for transducer check, diagnostic routines and calibration

Specification

Stress

Mixture types Machine speed Angle of gyration Electrical supply Sample sizes Compressed air supply Dimensions (WxHxL) 600 kPa nominal, 1000 kPa Max Wet and Dry 30 rpm 0.2 to >2° 220-240 V 50Hz (16 amp) 100 and 150 mm dia 7-10 bar, 350 L p/m 790 x 995 x 1920





Loss on Heat/Thin-Film Oven 220-240V 50/60 Hz

Code: 46-4100/01

Product Group: Asphalt and Bitumen Ovens

The Thin-Film Oven is used for determining the loss in mass of oil and asphaltic / bituminous compounds when heated with the loss on heating test method or the effect of heat and air on semisolid asphaltic / bituminous materials with the Thin-Film Oven (TFOT) method.

Further Information

Features:

- Complies to the requirements of BS 2000, ASTM D6, D1754 & AASHTO T47, T179
- The exterior is constructed from sheet steel finished in an easy clean powder-coated paint
- Interior chamber is made from stainless steel
- The unit is well insulated and has a double glass door for viewing the test chamber
- The system is controlled by a microprocessor digital controller and overheat thermostat
- Calibrated scale and tamper-proof lock
- Temperature is controlled and pre-set at 163°C +/- 1°C
- Two rotating platforms of 13.5 inches dia are supplied to perform both the tests

Side mounted controls comprise:

- Microprocessor digital control
- Independent overheat thermostat
- Mains switch
- On/Off switch for the turntable motor
- Indicator lamps

Specification

Max power (W)

Max Temp (°C)	163
Dimensions: Internal (HxWxD)	380 x 520 x 460 mm
Dimensions: External (HxWxD)	570 x 870 x 630 mm
Insulation	Double wall
Internal material	304 stainless steel
Turntable speed (rpm)	5.5

1500





Digital Tritest 50

Code: 25-3518/01

Product Group: Digital Tritest 50 Load Frame, Load Frames

- Microprocessor control
- Large on-board LED screen display
- Direct entry via a touch sensitive keyboard
- Rapid approach and return to datum of platen
- Fully variable speed, 0.00001 to 9.99999 mm/min
- Samples up to 100 mm diameter

This 50 kN capacity machine, designed primarily for triaxial testing of soil specimens up to 100 mm diameter x 200 mm long, comprises a rigid twin column construction with an integral fully variable microprocessor controlled drive unit and LCD display with a touch sensitive keyboard. The machine is normally bench mounted for ease of installation and operation.

The use of a microprocessor controlled drive system and keyboard entry provides the Digital Tritest 50 with a wide variety of features which include pause and speed reset during test, RS 232C, operator programming of speed and control functions, self test diagnostics and many other features.

A robustly constructed steel case houses the motor drive system with careful attention being given to the prevention of ingress of water or grit. All operating controls are mounted on the front panel of the machine, which is angled and recessed to prevent physical and environmental damage.

Standards

BS 1377-7, BS 1377-8, BS 1924-2, ASTM D1883, ASTM D2166, ASTM D2850, ASTM D4767, ASTM D7181, AASHTO T99, AASHTO T134, AASHTO T135, AASHTO T136, AASHTO T180, AASHTO T193, AASHTO T208, AASHTO T296, AASHTO T297

Further Information

Complete with RS 232C interface.

Specification

Dimensions (I x w x h) Max vertical clearance Horizontal clearance Platen diameter Platen travel Platen speed range 500 x 500 x 1470 mm 910 mm 364 mm 133 mm 100 mm 0.00001 to 9.99999 mm/min

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Product Sheet

Rapid approach speed Weight kg Capacity Speed Range

Rapid Approach Speed Platen Travel

Vertical Clearance

Horizontal Clearance Serial Interface

Overall Dimensions

Weight

140 12 ,200 lbf. (50 kN). English mode: 0.000001 to 0.399999 in/min. Metric mode: 0.00001 to 9.99999 mm/min. 2.0 in/min. (50 mm/min.). 3.9" (100 mm); limit switch protection. 36 .8" (910 mm) maximum; 12 " (305 mm) minimum. 15 .3" (364 mm). RS232 C; programmable baud rate and protocol. 19.7" w. x 19.7" d. x 57.8" h. (500 x 500 x 1,470 mm). Net 220 lbs. (100 kg); Shpg. 300 lbs. (136 kg).

25 mm/minute





GDU 8 Channel Data Acquisition Unit 220-240 V 50/60 Hz, 1 Ph.

Code: 27-1500/01

Product Group: Automatic data acquisition, Automatic Data Acquisition, Automatic data acquisition, Automatic Data Acquisition, Data Logging with the GDU, Geotechnical Data Acquisition Unit (GDU)

The GDU is a stand-alone, multi-tasking, multi-channel data logger, that is reliable and powerful, enabling it to co-ordinate test data from the range of ELE transducers required for various test methods.

The ELE Geotechnical Software package (DS7.1), in conjunction with the GDU and a range of transducers, are the two central components required to create a modern turnkey soil testing system. Being fully modular it can be adapted to a wide range of soil testing laboratory configurations.

For performing CBR, Consolidation, Direct/Residual Shear and Total & Effective Stress Triaxial tests
8 Channels expandable to 32 for performing multiple, concurrent tests for cost savings
Independent signal conditioning on each channel to maintain data accuracy
Field-upgradeable software, meaning no downtime for future software and functionality upgrades

Extended warranty

• Extended warranty.

Specification

Case

Sockets Input Range Transducer Supply Dimensions

Weight

Aluminum, free standing; houses power supply, analog to digital conversion module and an 8-channel analog input module with transducer energization. Standard 5-pin DIN type. \pm 5 volts to \pm 10 mV full scale. 10vDC. 12.8" w. x 14.3" d. x 6.1" h. (325 x 363 x 155 mm). Net 14.08 lbs. (6.4 kg).





DS7.2 Undrained Triaxial Shear Strength Program for Windows 7, 32/64 bit

Code: 27-1753

Product Group: DS7, DS7.2 Quick Undrained Triaxial Software, Automatic Data Acquisition

- Options for single or multi-stage testing on a sample
- Mohr circles produced for graphical analysis

Options are available for a single test on one sample, standard three-sample procedure with linking of the results, or for a multi-stage test on one sample. Load and strain are monitored through transducers. Various printouts and graphical plots are available including basic sample data, moisture content and density. The program tabulates shearing data and plots stress against strain. Mohr circles are produced for graphical analyses.





DS7.2 CU/CD Triaxial Shear Strength Program for Windows 7, 32/64 bit

Code: 27-1763

Product Group: DS7, DS7.2 CU/CD Effective Stress Triaxial Software

• Complete package for consolidated drained and consolidated undrained triaxial tests

This advanced package includes procedures for consolidated drained and consolidated undrained tests. Standard options are available for saturation, consolidation and shearing with automatic monitoring of the various parameters through transducers linked to the system. Load, strain, volume-change, pore-pressure, cell pressure and back pressure can all be monitored. Various prints and graphical plots are available to the engineer and include saturation data such as pore pressure build-up and B values, consolidation, volume change against time, shearing load versus strain with pore pressure monitoring.





MultiPlex 50 Load Frame

Code: 25-3700/01 Product Group: Load frames, Load Frames, Load frames

Compact bench mounting load frame designed for performing laboratory CBR, unconfined compression, quick undrained triaxial and Marshall Stability tests. Has a variable speed of 0.5 to 50mm per minute and features rapid approach of platen.

Standards

EN 12697-34, BS 598, BS 1377, BS 1924, ASTM D1883, EN 12697-23, EN 12697-24, EN 13286-47, AASHTO T193, ASTM D2850, ASTM D4767, AASHTO T296, AASHTO T297

Further Information

NOT AVAILABLE FOR SALE IN THE USA

Specification

Dimensions (I x w x h) Max vertical clearance Horizontal clearance Platen diameter Platen travel Platen speed range Rapid approach speed Weight kg 550 x 400 x 1470 mm 800 mm 265 mm 133 mm 100 mm 0.5 to 50 mm/min 40 mm/min 100

