

















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

Contents



This wishlist was generated on 13/09/2016, and contains the following Products:

45-6750/01

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

45-6750/10

100mm Dia mould & platens

45-6750/12

150mm Dia mould & platens

45-6750/22

150 mm filter papers (pack of 100)

45-6750/24

100mm filter papers (pack of 100)

45-6750/28

Small air compressor for 45-6750

45-6710

Specimen Extruder

46-4150/01

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

42-6000

Pendulum Skid Resistance Tester

42-6200

Base Plate for Skid Resistance Tester for lab testing

42-6000/10

Set of 3 Spreader Feet for Skid Resistance Tester for in-situ testing

46-6100/01

Asphalt Binder Analyser 220-240V 50/60 Hz

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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 600 kPa nominal, 1000 kPa

Max

Mixture types Wet and Dry
Machine speed 30 rpm
Angle of gyration 0.2 to >2°

Electrical supply 220-240 V 50Hz (16 amp)
Sample sizes 100 and 150 mm dia
Compressed air supply 7-10 bar, 350 L p/m
Dimensions (WxHxL) 790 x 995 x 1920



100mm Dia mould & platens

Code: 45-6750/10

Product Group: Moulds for Gyratory Compactors

34 x 18.5 x 18.5 cms



150mm Dia mould & platens

Code: 45-6750/12

Product Group: Moulds for Gyratory Compactors

34 x 18.5 x 18.5 cms



150 mm filter papers (pack of 100)

Code: 45-6750/22

Product Group: Moulds for Gyratory Compactors

150 mm x 150 mm



100mm filter papers (pack of 100)

Code: 45-6750/24

Product Group: Moulds for Gyratory Compactors

100 x 100 mm



Small air compressor for 45-6750

Code: 45-6750/28

Product Group: Accessories for Gyratory Compactor

Compressed air supply 7-10 bar, 350 Litres per

minute



Specimen Extruder

Code: 45-6710

Product Group: Accessories for Gyratory Compactor



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) 163°C \pm 1°C (preset) Dimensions: Internal (HxWxD) $380 \times 480 \times 440 \text{ mm}$

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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

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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) 695 x 295 x 695 mm

Volume 0.15m3 Weight 30 kg

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Base Plate for Skid Resistance Tester for lab testing

Code: 42-6200

Product Group: Skid Resistance Testing, Skid

Resistance Testing



Set of 3 Spreader Feet for Skid Resistance Tester for in-situ testing

Code: 42-6000/10

Product Group: Skid Resistance Testing, Skid

Resistance Testing



Asphalt Binder Analyser 220-240V 50/60

Code: 46-6100/01

Product Group: Ignition Method

Designed to measure the asphalt binder content of hot mix asphalt (HMA) using loss on ignition, in accordance with AASHTO T 308-10, ASTM D6307-10 and BSEN 12697-39:2012.

Further Information

The integral microprocessor controlled weighing and calculation system is configurable to allow variations to the standard test method. Test result reports are available in both printed and software format. The high temperature afterburner minimises the production of noxious waste fumes. Supplied complete with 2 sets of sample baskets.

Features:

- Designed to measure asphalt binder content by loss on ignition
- Avoids health, environmental and waste management issues
- Avoids the expense associated with older solvent extraction methods
- Reduced emissions due to high temperature afterburner
- Controlled via a multi-lingual touchscreen interface
- English, Spanish, French, Chinese, Italian and Russian language display
- Other languages are available to order
- Automatic calculation of final sample weight and binder % result
- Adjustable aggregate correction factor
- Average test times from 20 mins for 6 mm aggregates, to 45 mins for 40 mm aggregates
- Permanent (dot-matrix) printed reports
- USB data output compatible with most spread sheets
- Easy naming, storage and recall of recipes that can be transferred between units
- Simplified menu structure with secure 'Supervisor' and 'Operator' settings
- Metal waste gas extraction pipe
- Factory fitted thermocouple access port, if temperature calibration is to be carried out
- Precise weight measurements, displayed to 0.1g resolution
- Capacity for large sample sizes for more accurate results (max. sample is 4.5kg)

Specification

Max Temp (°C) 750

Dimensions: Internal (HxWxD) 220 x 450 x 350 mm Dimensions: External (HxWxD) 980 x 600 x 775 mm

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Type
Thermocouple type
Max power (W)

Bench-top K 8000