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

Accessories

100mm Dia mould & platens

Code: 45-6750/10

100mm Dia mould & platens inc. specimen temperature measurement

Code: 45-6750/23

100mm Dia mould & platens, slotted for emulsion mix

Code: 45-6750/20

100mm Dia split mould

Code: 45-6750/27

100mm filter papers (pack of 100)

Code: 45-6750/24

150 mm filter papers (pack of 100)

Code: 45-6750/22

150mm Dia mould & platens inc. specimen temperature measurement

Code: 45-6750/21

150mm Dia mould & platens

Code: 45-6750/12

150mm Dia mould & platens, slotted for emulsion mix

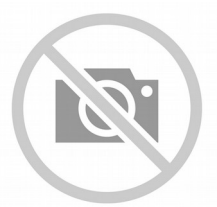
Code: 45-6750/15

2 deg. angle plate

Code: 45-6750/17

Calibration kit for internal angle lead

Code: 45-6750/11



Display, Shear Force

Code: 45-6750/18

Internal angle measuring device

Code: 45-6750/13

Internal angle measuring device inc. asphalt Hot Mix Simulator (HMS – Hot Mix Simulator)

Code: 45-6750/14

Option for 300mm mould height (cannot be retro-fitted)

Code: 45-6750/16

Small air compressor for 45-6750

Code: 45-6750/28

Spacer 100mm to compact 63mm height on 45-6750

Code: 45-6750/25

Spacer 150mm to compact 63mm height on 45-6750

Code: 45-6750/26

Specimen Extruder

Code: 45-6710

Specimen Temperature Measurement

Code: 45-6750/19