



ADVANCED PAVEMENTS TESTING SYSTEMS

# GYRUCOMP

Gyratory Compactors

Light and portable, Gyrocomp can easily be installed in mobile laboratories, representing the ideal solution for production control.

Affordable and efficient, thousands of units are successfully operating all over the world, making it an instrument of choice when it comes gyratory compaction.



**main features**

- > High productivity, design for continuous and heavy use
- > High rigidity thus light weight due to the proprietary Orbital system
- > Also ideal for mobile laboratories
- > Very reliable and accurate
- > Certified to EN and AASHTO
- > Approved as Superpave™ Gyratory Compactor in U.S.A.
- > Integrated touch-screen control panel with large display
- > Sliding transparent door
- > Full safety and ergonomic design
- > Integrated electromechanical extruder option
- > 2 years full warranty

**Standards** EN 12697-10 | EN 12697-31 | ASTM D6925 | AASHTO T312 (TP4) | SHRP\* M002 | AS 2891.2.2 \*Strategic Highway Research Program

Robust yet light and with high stiffness steel monocoque structure, incorporating a pneumatic cylinder for vertical load application and propriety electromechanical gyration and mould rotation system, delivers highly accurate and repeatable test results, together with stiffness and angle stability that fall comfortably within the limits defined in EN 12697-31. The large user-friendly integrated touch-screen control panel, shows the test graph in real time. The on-board firmware includes twelve languages making the interface suitable for local user needs and also offers the option to control the tests from a PC.

The machine can be fitted with the electromechanical extruder.

**A wide range of accessories**

The machine is supplied complete with height calibration tool, PC software, air hose, operating instructions and calibration certificate and is also available in two versions.

**78-PV2522**

Conforming to AASHTO/ASTM Standards and

**78-PV2522/E**

Conforming to EN standards

Models preset to ASTM/AASHTO are supplied complete with Accredia traceable certificate of load, displacement and internal angle. Models preset to EN are supplied complete with Accredia traceable certificate of load, displacement and internal angle, including all the parameters required in EN 12697-31 Annex C (stability factor, parallelism factor, full rotation factor). Cylinder molds, distance plates and air compressor are not included. Please refer to the IPC Global catalogue's accessories section.

**Operating principle**

It is based on the motion of the bituminous sample which generates a conical surface of revolution, characterized by the gyratory angle. This motion produces shearing forces and, consequently, sample compaction.

**High stiffness frame**

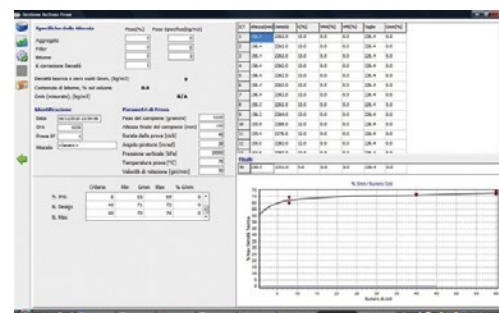
The very rigid but lightweight frame is due to the exclusive body design, resulting in high rigidity values exceeding the EN 12697-31 Standards.

**Change of internal gyratory angle**

The internal gyratory angle can be easily and quickly changed to any value, between 0.7 and 1.4°, following a factory calibrated conversion scale.

**Periodical verification and re-calibration**

The Gyrocomp compactors can be easily verified and re-calibrated by the operator, using the ILS Internal angle measurement apparatus model 78-PV0255. This apparatus is verified with traceable (ACCREDIA) calibration instruments.



Example of single test processing with PC software

### Technical specifications

- Compacted specimen size: 150 and 100 mm dia.
- Sample height: 80 to 200 mm (150 mm) – 50 to 125 mm (100 mm)
- Consolidation pressure: 80 to 800 kPa (150 mm) – 160 to 1,400 kPa (100 mm)
- Internal angle of gyration: Adjustable from 0.70 to 1.40 °.
- Preset to 1.16° internal angle (78-PV2522, ASTM/AASHTO models)
- Preset to 0.82° internal angle (78-PV2522/E, EN models)
- Speed of gyration: adjustable from 20 to 60 rpm
- Number of gyrations: adjustable up to 999
- Test programmable either by number of gyrations or specimen height
- Communication with PC: RS 232 connections
- Internal memory: thousands of tests
- Power rating: 1,000 W
- Dimensions (including extruder bench, W x D x H): 502x753x1940 mm
- Dimensions (wxdxh): 469x615x1130 mm

### Ordering information

#### **78-PV2522**

Gyrocomp gyratory compactor, internal angle of gyration preset to 1.16° to AASHTO T312/ ASTM D6925. 230-110 V, 50-60 Hz, 1 ph

#### **78-PV2522/E**

Gyrocomp gyratory compactor, internal angle of gyration preset to 0.82° to EN 12697-31 Annex C. 230-110 V, 50-60 Hz, 1 ph

**Note** All models nominally comply to EN 12697-10, EN 12697-31, ASTM D6925, AASHTO T312 and SHRP M-002. The only difference between the 78-PV2522 and the 78-PV2522/E versions, is the angle of gyration, factory set to ASTM/AASHTO or to EN standards. This means that it is possible, with our intervention, to upgrade from one version to the other the angle of gyration.



### Accessories

#### Cylinder moulds and distance plates

Suitable for all our Gyratory compactors. For detailed information refer to page 44 of the IPC Global's catalogue.

#### Integrated worktop with extruder

##### **78-PV2520/15**

Integrated work top with electromechanical specimen extruder. 230 V, 50-60 Hz, 1 ph

##### **78-PV2520/15Z**

Integrated benchtop with electromechanical specimen extruder. 110 V, 60 Hz, 1 ph  
The bench top with extruder fits the GYROCOMP perfectly resulting in an ergonomic solution that aids the operator. The Electromechanical 550 W motor with speed reducer produces a maximum load that is also suitable for cold mix specimens.

- Dimensions: 502x753x808(h) mm
- Weight approx.: 45 kg

#### Air compressor

##### **78-PV0250/7**

Low noise air compressor. 230 V, 50 Hz

##### **78-PV0250/7Y**

Low noise air compressor. 220 V, 60 Hz

##### **78-PV0250/7Z**

Low noise air compressor. 110 V, 60 Hz

#### Internal angle measurement apparatus

##### **78-PV0255**

ILS Internal angle measurement apparatus (For detailed information see page 45 of the IPC Global's catalogue.)



Integrated worktop with electromechanical extruder option 78-PV2520/15



Gyrocomp installed inside a van as a road mobile laboratory

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