

## Internal angle measurement apparatus ILS



EN 12697-31 Annex C | ASTM D7115 | AASHTO T344

### MAIN FEATURES

- Accurate calibration of internal angle of Gyratory compactors and verification of frame stability, to international Standards
- Quick and accurate measurement of the internal gyratory angle: less than 30 minutes
- No hot mix required: when, placed into the mould, the device reproduces the internal shearing forces generated by the hot mix during compaction
- Ideal for periodic verification of the internal gyratory angle
- Compatible with any make of Gyratory compactors
- Battery operated

### GENERAL DESCRIPTION

The importance of a precise gyratory angle has been widely noted. The measurement of the internal angle represents, in practice, the most accurate method of calibration. This method comprises two individual values: angle between cylinder and top plate and angle between cylinder and bottom plate.

The average of these two values is taken as the "internal angle". To date the internal angle calibration of gyratory compactors has been considered a difficult task leading to wide variations in results even between machines of the same brand.

The ILS device fully satisfies the verifications requirements to measure the internal angle conforming to EN 12697-31 Annex C. It can also be used on any other makes of gyratory compactors.

The **Internal angle measurement apparatus ILS** can be used as part of your **Superpave performance based testing** program.

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### TECHNICAL SPECIFICATIONS

- Battery operated
- Reproducibility is in 0.01° Class, fitting to all Standards
- Overall dimensions: 150 mm dia., 115 mm high
- Weight approx.: 5.6 kg

### ORDERING INFO

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#### 78-PV0255

ILS device for internal angle measurement for Gyratory compactors, conforming to EN 12697-31, annex C. Complete with Excel Macro and PC connection cable

## DATA SHEET

### ACCESSORIES

#### 78-PV0255/1

Calibrator blocks for ILS, set of two different angles, supplied with factory certificate

### ADDITIONAL INFORMATION

#### Operating principles and description

The ILS apparatus is an electro-mechanical device of cylindrical shape, which will fit perfectly into any 150 mm dia. gyratory mould. One short run (10 cycles) is performed for measuring the internal compaction angle of the upper plate. The ILS is read, and the same is repeated for the bottom plate. The total gyratory angle is determined from these two values.

During the measurements the ILS is generating an accurate mechanical load simulating the presence of mixture, at a correct height for a real mix. By using different generated load levels, the angle response of the compaction machine can also be measured.

The ILS apparatus is supplied complete with Excel Macro for data acquisition and processing.

In only 30 minutes it is possible to verify the Gyratory compactor, with high accuracy and without the need of hot mix.

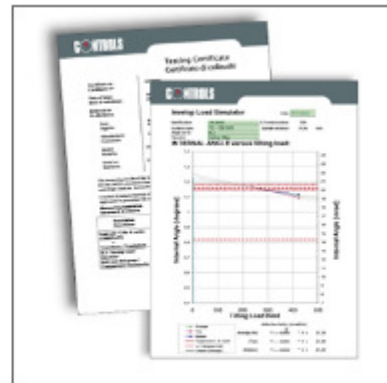
The apparatus consists of a steel cylinder housing a mobile structure incorporating a high precision digital gauge.



Internal angle measurement apparatus ILS 76-PV0255



Complete set of 76-PV0255



ILS Certificates