

GYRATORY COMPACTORS. MEASUREMENT OF INTERNAL ANGLE

Introduction

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 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 76-B0255 ILS calibration device fully satisfies the verifications requirements to measure the internal angle. It can also be used on any makes of gyratory compactors.

76-B0255

ILS Internal Angle Measurement apparatus

General description and operating principle

The ILS measuring tool is an electromechanical device in cylindrical shape, which will perfectly suit into any gyratory mould (in accordance with 150 mm standard).

One short run (10 cycles) is performed for measuring the internal compaction angle of the upper end plate. The ILS is read, and the same is repeated for the bottom end plate. The all over gyratory angle is determined by these two angle values.

During the measurements the ILS is generating an accurate mechanical load simulating the presence of mixture, at the correct height of a real mix.

By using different generated load levels similar way the angle response of the compaction machine can also be measured.

The ILS is supplied complete with Excel macro for data capture and result calculations.

With the ILS one gyratory machine can be checked in 30 minutes, with highest accuracy and without need for hot mix.

Overall dimensions:
150 mm dia. x 115 mm

Weight approx.: 5.6 kg

PATENT PENDING

- Summary print of measurement is automated with a PC
- Quick and accurate measurement: less than 30 minutes
- No hot mix asphalt required
- Fits to any make gyratory compactor
- No height extrapolation needed
- Reproducibility is in 0.01° Class, fitting to all standards



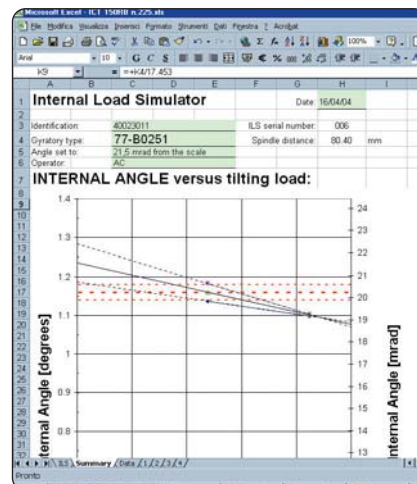
76-B0255



76-B0255 During calibration procedure.
The ILS fits the 150 mm dia moulds without filling it with asphalt



76-B0255 Complete set



Test result of the verification of the internal angle of a gyratory compactor using the 76-B0255 ILS Unit and the Macro Windows® based software