



TROXLER

The leader in construction test equipment

Superpave™ Gyratory Compactor Model 4140-B



Meets all SHRP/Superpave Requirements

The Troxler Superpave™ Gyratory Compactor is built to SHRP and US Federal Highway Administration specifications. It produces gyratory asphalt specimens that best predict long-term pavement performance. The SHRP Superpave program uses specimen height measured at every gyration during the consolidation cycle as the basis for asphalt mix design. This information is not produced by Marshall hammers or any other type of laboratory compaction equipment. Measurement of specimen height automatically occurs during consolidation.

The Troxler Superpave Gyratory Compactor also produces a densification profile that is used by the designer to determine optimum paving mixtures.



Outside the USA — +1.919.549.8661

Troxler is a proud member of:



Winner of the 2003 IRF Global Road Achievement Award in the category of Technology, Equipment & Manufacturing

Features & Benefits

Simple To Run

Pressing a single key lowers the ram, induces the angle, performs compaction and records data. Every specimen is compacted with a constant consolidation pressure, angle and rate of gyration, which produces consistent samples time after time. These parameters are easily changed in minutes by following menu instructions.

Operator Safety

The Troxler Superpave Gyrotory Compactor is designed with the safety of the operator in mind. All rotating parts are beneath the work surface and away from the operator. Doors and access panels have safety switches for added protection from moving parts.

Easy Installation

The Troxler Superpave Gyrotory Compactor is easy to install. Its compact size allows access through standard door openings.

Low Power

Power requirements are only 10 amps at 115 V ac. Troxler's innovative use of a non-hydraulic method of operation allows the use of smaller, more efficient motors that do not consume the power of larger, outdated equipment requiring a 220 V ac power supply.

Quiet

Unlike other gyrotory compactors and Marshall hammers, the Troxler Superpave Gyrotory Compactor is quiet, allowing normal conversation in the area while the machine is running.

Factory Calibrated, Ready to Run

The Troxler Superpave Gyrotory Compactor comes calibrated and ready for use. The pressure, angle and rate of gyration are set to SHRP guidelines. No assembly or calibration is required. Simply connect to a power supply and you are ready to operate.

Operation

The compactor can be programmed to operate automatically or the user can manually control each compaction step. The system can be programmed to compact specimens for a set number of gyrations or to a desired specimen height.

Superior Angle Method

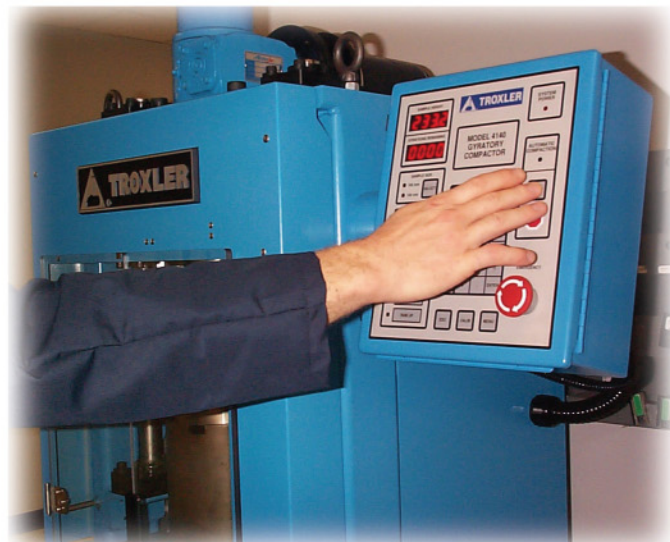
Troxler uses a patented method of angle induction. The top of the mold is held in a fixed position while the angle is induced by offsetting the base of the mold. Rotating the offset base creates the gyrotory motion with superb angle control and power efficiency. Wear on moving parts is significantly reduced with this design.

Display

The display will countdown the number of gyrations remaining in a cycle with the corresponding specimen height. It also shows the number of gyrations, consolidation pressure and rate of gyration.

Attached Extruder

A specimen extruder, which is provided, can be attached directly below the control panel. Its height can be adjusted to match that of the compactor tabletop, which allows the user to slide a mold with its compacted specimen directly into the extruder.



Mold Lifter

For ease in lifting a charged mold, Troxler offers a mold lifter accessory. The lifter slides easily around the mold, allowing the user to lift and move the mold effortlessly.

Roller Base

An optional base with casters is available for moving the compactor. In addition to the mobility offered by the casters, the base is designed for fork lift transport.

Calibration Verifications

Field verification of the compactor settings is performed in a matter of minutes with the Verification Kit accessory and by utilization of the compactor's internal microcontroller. Verification values for the pressure, angle, height and rotational speed are stored after each calibration. The operator may choose to print the results of each individual calibration or to generate a summary report that details all four parameters. In either case, the report shows the date, time and results of the calibration.

Data Storage

Specimen height for each gyration is stored in the computer memory. Up to six data sets can be stored and will remain in memory until overwritten or deleted.

USA Patent Number:

5,323,655

Canada Patent Number:

2,158,735



Data Output/Analysis

Output of specimen height per gyration may be directed automatically to a printer or computer during the consolidation cycle. In addition, the stored data may be uploaded to a computer or printed after compaction is complete. GyroPave™ for Windows™ software, which is provided, is available for more complete analysis of compaction data from the Troxler Gyrotory Compactor. GyroPave provides a set of flexible and powerful tools to collect and process densification data from the gyrotory compactor. GyroPave can calculate the Federal Highway Administration (FHWA) Superpave mix design properties. GyroPave provides a number of sample worksheets (templates) and macros for Microsoft Excel®, as well as Visual Basic® procedures that the user can use to automate a number of common tasks in the Superpave mix design process.

SPECIFICATIONS

General

Electrical	115 V ac, 60 Hz, 10.1 A (230 V ac, 50 Hz optional)
Dimensions	217 H x 85 L x 62.23 W cm (86 H x 33.5 L x 24.5 W in) with the scaler the width is 87.63 cm (34.5 in); with the ram cover removed the height is 188 cm (74 in) to fit through standard door ways
Weight	408 Kg (900 lbs)
Shipping Weight	527 Kg (1160 lbs)
Angle of Gyration	Adjusts from 0.5° to 2.0° ±0.02°
Consolidation Pressure	Adjusts from 200 to 1000 KPa (29 to 145 PSI) ±3.0% after first 5 gyrations at 600 KPa ±5.0% for gyration 1-5 at 600 KPa
Mold Inner Diameter	150 mm (6 in nominal) or 100 mm (4 in nominal)
Number of Gyration per Test	1 to 999
Gyration Rate	30 rpm ±0.5 rpm

Standard Equipment

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| <ul style="list-style-type: none"> • Printer • Printer cable • Extruder for specimen removal from mold • Height standard block | <ul style="list-style-type: none"> • Operator's manual • Serial Cable • GyroPave software • Magnalube-G lubricant |
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SHRP Package

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| <ul style="list-style-type: none"> • Verification kit • Three 150 mm molds | <ul style="list-style-type: none"> • Specimen paper disks |
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Additional Accessories

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| <ul style="list-style-type: none"> • 100 mm specimen kit (ram, mold, paper disks) • Mold lifter (150 mm molds only) | <ul style="list-style-type: none"> • Caster package |
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