PavePro series

DOUBLE WHEEL TRACKER (DWT)

Standard: EN 12697-22, AASHTO T324

Our precision wheel tracker is designed to evaluate the rutting resistance of asphalt mixtures under both air and water conditions, fully compliant with EN 12697 22 and AASHTO T324 standards. Engineered with a robust stainless steel frame and dual independent wheel assemblies, the system ensures accurate simulation of traffic loading and temperature effects. The transparent protective cover enables controlled air testing while maintaining operator safety and visibility, allowing seamless transition between dry and submerged test environments.

Equipped with a computer software interface, the tracker provides automated test execution, real time plotting of rut depth versus wheel passes, and precise temperature regulation. Its modular design allows laboratories to perform comparative air and water rutting analyses using the same setup, enhancing efficiency and repeatability. This dual mode capability makes it ideal for research, quality assurance, and performance benchmarking of asphalt mixtures under realistic service conditions.

Main Features :

- **High-Resolution Metrology**: Utilizes a high-precision displacement transducer, maintaining a superior accuracy threshold of ± 0.01mm across its entire measurement range.
- **Automated Data Management**: Fully automated thermal regulation and data logging protocols ensure seamless generation, archiving, and retrieval of test results.
- **Precision Thermal Sensing**: Incorporates an absolute temperature sensor for wide-range thermal monitoring, delivering exceptional stability and high-fidelity accuracy.
- **Advanced Thermal Regulation**: Employs Pulse Width Modulation (PWM) coupled with PID control logic to maintain thermal equilibrium and eliminate temperature overshoot.
- **Full-Scale Linear Calibration**: Both temperature and displacement sensors utilize linear modulation to ensure consistent accuracy and linearity across the total operating scale.
- **Multi-Point Deformation Analysis**: Employs a rigorous data acquisition protocol, capturing 11 discrete data points within a symmetrical 210 mm central zone to calculate precise average deformation values.
- **Customizable Termination Criteria**: Offers dual-mode operational flexibility, allowing tests to conclude based on either a pre-set number of cycles or a specific rut-depth threshold.
- **Ergonomic Open-Access Design**: Features an open-architecture worktable with an automated wheel-lift mechanism, facilitating the effortless installation and removal of specimen moulds.

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Technical Specifications :

Model Number	NL PV / P2
Displacement Sensor Range	0 - 30 mm
Displacement Accuracy	± 0.01 mm
Temperature Control Range	Ambient to 80 °C
Temperature Control Accuracy	± 1 °C
Steel Wheel Dimension	Ø 203 x 47 mm
Rubber Wheel Dimension	Ø 203 x 50 mm
Wheel Load	700 N
Testing Speed	15 - 55 cycles/min
Stroke Distance	230 ± 10 mm
Test Duration	0 - 480 minutes
Cycle Count Range	0 - 30,000 cycles
Specimen Mold Sizes	400 x 300 x 100 mm, 300 x 300 x 100 mm & Ø150 x 60 mm
Test Mode	In water and air
Temperature Channels	2 Independent Channels
Product Dimension	1400 x 1600 x 1400 mm (width x depth x height)
Approx Weight	500 kg
Power	420 VAC, 8 kW, 3 Ph, 50/60 Hz

*1 Copy of Manual Instruction

Unit Consists Of :

Model Number	Parts Description	Qty
NL PV / P2 – P1	Rubber Wheels Ø 203 x 50 mm	2 units
NL PV / P2 – P2	Rectangular EN Mould 400 (W) x 300 (L) x 100 (H) mm	2 units

Optional Accessories :

Model Number	Accessories Description
NL PV / P2 – A1	Steel Wheels Ø203 x 47 mm (2 units)
NL PV / P2 – A2	Rectangular EN Mould 300 (W) x 300 (L) x 100 (H) mm
NL PV / P2 – A3	Cylindrical AASHTO Mould (2 cylinders Ø150 x 60 mm)