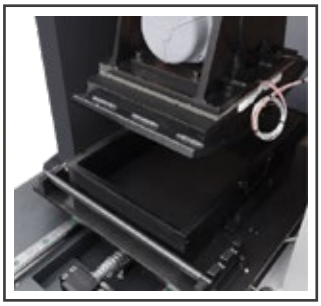
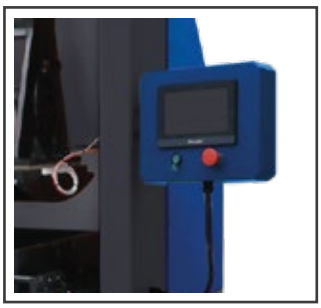
PavePro series

ASPHALT ROLLER COMPACTOR (ARC)

Standard: EN 12697-33, ASTM D8079





The NL PavePro Asphalt Roller Compactor (ARC) is the definitive solution for aboratories requiring the highest level of specimen uniformity for advanced asphalt performance testing. By precisely replicating the kneading action of full-scale site rollers, the system produces slabs that reflect the true mechanical properties of field-compacted pavements. Its powerful pneumatic assembly and advanced servo-drive technology work in tandem to eliminate density gradients, providing researchers with a reliable, repeatable foundation for Hamburg Wheel Tracking and complex modulus testing.

Engineered for the modern laboratory, this ARC streamlines the transition from mixture to specimen with an intuitive, touchscreen-driven workflow. The system removes the guesswork from compaction through automated pressure regulation and precision thermal management, ensuring every slab meets stringent international standards without constant operator intervention. With its high-precision stability, self-diagnostic capabilities, and seamless data portability via USB, it combines industrial durability with the sophisticated control necessary for high-tier asphalt research.

Main Features :

- **Pneumatic Load Control**: Fully adjustable compaction pressure from 0–30 kN via a high-precision pneumatic system.
- **Servo-Driven Precision**: High-torque servo motor ensures smooth mold travel at speeds up to 300 mm/s.
- **Versatile Specimen Sizing**: Supports adjustable specimen heights ranging from 30 mm to 150 mm.
- **Advanced PID Temperature Control**: Utilizes PWM and PID logic for industry-leading thermal stability and accuracy.
- **Touch-Screen HMI**: Intuitive interface for real-time monitoring, parameter storage, and simplified operation.
- **USB Data Export**: Live graphical tracking of temperature, pressure, and height; data is fully exportable via USB.
- **Automated Diagnostics**: Smart system monitoring with integrated error-code prompts for rapid troubleshooting.
- **Secure Quick-Clamp System**: Reliable, user-friendly clamping mechanism for fast and safe mold installation.
- **Dual-Stop Logic**: Automatically terminates operation based on either a set number of passes or a target specimen height.
- **Precision Height Tracking**: Real-time height monitoring with ±0.1 mm accuracy.
- **Vibratory Compaction**: Vibratory system to simulate dynamic field conditions.

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Technical Specifications :

Model Number	NL PV / P3
Roller Radius	535 mm
Roller Width Options	260, 300 & 400 mm
Load Cell Capacity	50 kN
Load Cell Accuracy	± 30 N
Maximum Compaction Force	30 kN
Temperature Control Range	Ambient to 200 °C
Temperature Accuracy	± 5 °C
Carriage Travel Speed	Maximum 300 mm/s
Compaction Cycles	Up to 9999 cycles
Mould Dimensions Supported (up to 150 mm height)	- 500 x 400 mm - 300 x 400 mm - 260 x 320 mm - 300 x 300 mm
Overall Dimensions	900 (W) x 1250 (D) x 2100 (H) mm
Approx Weight	350 kg
Power	220~240 VAC, 3 kW, 1 Ph, 50 Hz or 60 Hz (Please Specify)

*1 Copy of Manual Instruction

Unit Consists Of :

Model Number	Parts Description	Qty
NL PV / P3 – P1	Roller 300 mm width (400 mm length)	1no.
NL PV / P3 – P2	Rectangular EN Mould 300 (W) x 400 (L) x 100 (H) mm	1no.

Optional Accessories :

Model Number	Accessories Description
NL PV / P3 – A1	Roller 300 mm width (300 mm length)
NL PV / P3 – A2	Rectangular EN Mould 300 (W) x 300 (L) x 100 (h) mm
NL PV / P3 – A3	Roller 260 mm width (320 mm length)
NL PV / P3 – A4	Rectangular EN Mould 260 (W) x 320 (L) x 100 (h) mm

Pair of Roller and Mould