



PRESSURE AGING VESSEL (PAV)

Standard: EN 14769, ASTM D6521, AASHTO R28

The **NL PavePro Pressure Aging Vessel (PAV)** simulates the long-term oxidative aging of asphalt binders caused by climate and traffic loading over a pavement's service life. By subjecting bitumen samples to controlled temperature and pressure, it evaluates the anti-oxidation capacity of different materials and provides aged specimens for essential performance testing.

Designed for standard laboratory benchtops, this compact unit features a high-definition touchscreen for real-time monitoring of aging cycles and error data. It integrates advanced safety protocols, including over-pressure relief and thermal protection, to ensure operator safety while meeting rigorous international standards.

Main Features:-

- **7-inch HD Touchscreen Controller:** Enables real-time monitoring of internal chamber pressure and temperature.
- **Dynamic Data Visualization:** Displays real-time temperature-time and pressure-time curves throughout the aging process.
- **Compliance Monitoring:** Provides real-time tracking of temperature and pressure deviation durations.
- **Integrated Safety Interlocks:** Features temperature and pressure linkage control to prevent overheating during the pressurization phase.
- **High-Frequency Data Logging:** Records data every 5 seconds; supports data export via USB in Excel format.
- **Automated Reporting:** Capable of automatically printing comprehensive process data upon test completion.
- **Advanced Safety Protection:** Equipped with over-temperature protection, over-pressure protection, and high-pressure relief systems to ensure operator safety during high-heat and high-pressure conditions.
- **Intelligent Diagnostics:** Includes overload protection and fault pre-warning systems with audible buzzers and digital error code displays.
- **Premium Construction:** The cabinet is constructed from high-grade stainless steel with specialized finishing for a professional aesthetic, ease of cleaning, and long-term durability.

Technical Specifications :

Model Number	NL PV / P4
Operating Temp. Range	90°C – 110°C
Temp. Resolution & Accuracy	0.1°C & ±1°C
Preheat Time	40 - 60 mins
Operating Pressure	2.1 ± 0.1 MPa
Pressure Control Accuracy	± 0.02 MPa
Pressure Sensor Range	0 – 3 MPa
Pressure Sensor Accuracy	± 0.5% (0.015 MPa)
Air Compressor Required	> 3 MPa
Safety Relief Pressure	> 2.5 MPa
Product Dimension	550 (W) x 350 (D) x 450 (H) mm
Approx. Weight	72 kg
Power	220~240 V, 0.8 kW, 50/60 Hz

*1 Copy of Manual Instruction

Unit Consists Of :

Model Number	Parts Description	Qty
NL PV / P4 – P1	Sample Rack with 10 units Container	1set

Optional Accessories :

Model Number	Accessories Description
NL PV / P4 – A1	High Pressure Reducing Valve
NL PV / P4 – A2	High Pressure Hose (3m)
NL PV / P4 – A3	Mini Air Compressor



Sample Rack with 10 units Container