

ATS Pressure Aging Vessel Asphalt Binding Testing

Technical Specifications

Burhani Engineering Technology: Pressure Aging Vessel (PAV4)

The Pressure Aging Vessel (PAV4), manufactured by Burhani Engineering Technology, is a high-precision laboratory instrument designed to simulate the long-term oxidative aging of asphalt binders. This equipment is essential for road construction research and quality control, replicating approximately 7 to 10 years of environmental exposure in a compressed 20-hour timeframe. By subjecting binders to extreme pressure and heat, the PAV4 allows engineers to evaluate how asphalt will perform against fatigue and thermal cracking over its actual service life.



Technical Design and Innovation

The Burhani Engineering PAV4 features a compact, benchtop design with an integrated vessel and oven system. Built for durability and ease of use, it incorporates several advanced technical elements:

Touchscreen Interface: Equipped with an industrial-strength touchscreen and intuitive software, the unit provides real-time monitoring of critical parameters including time, temperature, and pressure.

Precision Performance: Using a platinum RTD sensor, the system maintains a temperature accuracy of . It also boasts an industry-leading recovery time of 30 minutes or less, significantly increasing laboratory throughput.

Connectivity: A front-mounted USB port allows for seamless data acquisition and software upgrades.

Operational Specifications

- (1) The PAV4 is engineered to meet rigorous international standards, including **AASHTO R28**, **ASTM D6521**, and **EN 14769**.
- (2) Operating Pressure: 2.10 ± 0.05 Mpa (304 psi).
- (3) Temperature Flexibility: Programmable from 50°C to 150°C , with standard test ranges between 90°C and 115°C .
- (4) Capacity: The unit includes a precision holder capable of holding 10 specimen pans simultaneously.

Safety and Reliability

Burhani Engineering Technology emphasizes operational safety and data integrity

Battery Backup: An optional system that prevents test interruption or data loss during power failures.

Robust Construction: A durable, black powder-coated exterior ensures the unit withstands harsh laboratory environments.

By providing this advanced technology, Burhani Engineering Technology enables laboratories to conduct high-level asphalt binder testing that complies with the Superpave Performance Grading (PG) system, ensuring the longevity and safety of modern infrastructure.