

# **AUTOMATIC VICAT**

The Automatic Vicat Apparatus is an advanced setting time tester for cement and mortar, designed to provide fully automated, precise, and repeatable results. Now in its fourth generation, this state-of-the-art instrument features a large touchscreen display, intuitive software, and advanced sensors to ensure accurate setting time measurements in compliance with **EN 196-3** and **ASTM C191** standards.



**VTR-1021**



# Vector Automatic Vicat

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## Superior Performance and Automation

The Automatic Vicat operates by dropping a needle (or probe) at dynamic intervals into a cement sample, measuring penetration depth with 0.01 mm resolution. As the cement hardens, the penetration depth decreases, and when it reaches predefined thresholds, the apparatus automatically determines and records the initial and final setting times. Unlike traditional manual methods, this fully automated process eliminates user errors, ensuring consistent and highly precise results.

## Advanced Technology for Reliable Testing

Equipped with cutting-edge electronics, the Automatic Vicat provides unmatched performance, flexibility, and ease of use. Users can interact with the device via an intuitive touchscreen interface, which supports multiple languages (English, French, Spanish, German, and Italian). The large color display simplifies navigation, using graphic symbols and icons to guide the user through the test process. The integrated printer automatically prints test results, eliminating the need for manual data entry and reducing operator workload.

## Comprehensive Testing Capabilities

The Automatic Vicat is designed for both dry and underwater testing, ensuring flexibility for different laboratory conditions. Underwater testing provides optimal environmental control, maintaining stable temperature and humidity levels that are critical for accurate cement testing. The device continuously records water temperature during each test, ensuring reliable and repeatable results.

With the Vector Vicatron Test Software, users can monitor all tests in real time on a single screen, allowing for dynamic adjustments based on real-time data. The software captures each impact's penetration depth and temperature with 0.1 mm accuracy, providing detailed data for in-depth analysis. Additionally, the penetration step times automatically adjust, ensuring that the test follows the natural setting behavior of the cement.

## Customizable and Scalable Testing Options

The Automatic Vicat offers unparalleled flexibility, allowing users to test multiple samples simultaneously or at different intervals. It supports unlimited test result storage, enabling easy tracking and comparison over time. The modular design allows for custom feature additions upon request, making the system adaptable to specific laboratory requirements.

The system is available in single, 6-sample, and 12-sample configurations, accommodating a variety of testing needs. Users can configure the number of impacts and starting positions through the software, with each mold customizable for specific cement and water mix ratio

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## Key Features

- Fully automated testing for cement and mortar setting time.
- Real-time monitoring and PDF report generation for detailed analysis.
- Penetration precision of 0.01 mm for highly accurate results.
- Multi-sample testing capability, allowing for simultaneous or independent tests.
- Unlimited test result storage for long-term tracking and comparison.
- Testing in both dry and water pool environments for enhanced control.
- Automatic needle cleaning device for easy maintenance.
- Advanced software with dynamic penetration step adjustments.
- Integrated printer for immediate test report output.

## Spare Parts and Accessories

To ensure long-term usability and easy maintenance, the Automatic Vicat is compatible with a range of spare parts and accessories, including:

- Centering rings for EN and ASTM molds.
- 1.13 mm dia. needle for initial setting tests.
- 1 mm dia. needle for ASTM setting time tests.
- Plastic molds for EN and ASTM testing.
- Glass base plate and spare plates for in-water testing kits.

## Reliable and Future-Proof Cement Testing

The Automatic Vicat Apparatus is the ideal solution for modern cement laboratories, combining automated precision, advanced software capabilities, and flexible testing options. Designed to meet the demands of high-accuracy cement testing, it ensures reliable, repeatable, and standardized results, making it a must-have for quality control and research applications.