

# **Automatic Vicat Apparatus**

Standards: EN 196-3, EN 480-2, ASTM C191, AASHTO T131, ASTM C187, EN 13279-2, DIN 1168, NF P15-414, NF P15-431





#### **Description**

The Automatic Vicat Apparatus, also known as a cement consistency and setting time tester, is a precision instrument used in the cement and concrete industries. It is specifically designed to determine the standard water consistency requirement and the setting time of cement paste.

Our apparatus is applicable of testing a wide range of cement types, including but not limited to: Portland cement, ordinary Portland cement, slag Portland cement, fly ash Portland cement, pozzolanic Portland cement, and composite Portland cement, as well as other designated cement varieties.

YouTube Video: https://youtu.be/xYGNJG0nE7c

The testing process is based on the principle that cement paste with standard consistency offers a specific resistance to the penetration of a standard test rod. By measuring the penetration depth of the rod in cement paste samples with varying water contents, the apparatus accurately determines the amount of water required to produce a standard consistency cement paste.

#### **Automatic Vicat Apparatus Features**

- **One-Key Position Calibration:** Fully automated calibration process. After rough • positioning, the system performs precise position calibration automatically.
- **Position Memory Function**: Once calibration is completed for each test position, the system automatically stores the data. Recalibration is not required for repeated tests at the same position.
- Automated Measurement Process: With one-key operation, the apparatus automatically performs the measurement and lifts the components after test completion.
- Accurate Time Control: Precisely controls the 30-second settling time countdown during testing.
- Result Evaluation: Automatically evaluates and displays results in accordance with the • relevant test specifications.
- Integrated Data Storage: Standard consistency and setting time data are stored systematically and can be exported as needed.

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• **Data Output Interface**: Supports RS485 output and allows data import into standard-format test report software on a computer.

### **Automatic Vicat Apparatus Technical Specifications**

Model	Automatic Vicat Apparatus
Displacement	High-precision LVDT displacement sensor, split structure; frictionless needle drop; range: 0–50 mm; display precision: 0.01 mm; relative displacement accuracy: ≤ ±0.1 mm
Data Storage	Up to 200 groups
Sliding Component	300 g $\pm 1$ g (including needle and rod)
Data Interface	RS485
Dimensions	15.35x12.20x22.65 in (390x310x575 mm)
Voltage	220 V ±10%, 50Hz
Power Consumption	40 W
Net Weight	26.5 lbs. / 12 kg

## **Automatic Vicat Apparatus Structural Components**

- Chassis bracket
- Touchscreen display
- Screw lifting system
- Sliding component
- Displacement measurement system

#### \* Request a <u>formal quotation</u> or send an e-mail to <u>sales@nextgentest.com</u> for the most up-to-date pricing and applicable discounts and incentives.

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