



## Automatic Vicat Apparatus – Vicatronic

### Standards

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



ULTIMATE USER-  
FRIENDLINESS



LEADING  
DEPENDABILITY  
AND RELIABILITY



STRICT COMPLIANCE  
WITH INDUSTRY  
STANDARDS



STOCKED  
CONSUMABLES  
AND SPARES



TRUSTED AFTER  
SALES TECHNICAL  
SUPPORT



LIFETIME PRODUCT  
SUPPORT ADVANTAGE



### Description

[Vicatronic](#) is an automated, computerized tropicalized Vicat recording device designed and manufactured using the latest and most advanced technology. It is used to determine the initial and final setting times of cements or mortar pastes. The unit is manufactured with anti-corrosion and tropicalized components, allowing its use in environments with humidity levels not falling below 90% and temperatures of at least 20°C, in compliance with EN Specifications.

Accurate determination of the setting time for cement, mortar, and gypsum is a crucial parameter in ensuring quality during inspection and verification. Our machine operates on the innovative CVI-TECH philosophy. A needle (or probe) descends freely at regular intervals and fixed positions into a cement sample. The penetration depth is meticulously measured by a sensor with a 0.1 mm resolution.

As the hardening process evolves, the penetration depth decreases. When it aligns with pre-defined thresholds set by standards, the initial and final setting times are precisely measured and recorded. This method ensures meticulous monitoring and adherence to quality standards throughout the setting process.

### Automatic Vicat Apparatus Features

- **Innovative Design:** Functionality and ergonomics are at the forefront of our design, rooted in the groundbreaking CVI-TECH philosophy.
- **Advanced Electronics:** Harnessing cutting-edge electronic technologies, our system delivers superior performance and unparalleled flexibility, seamlessly blending sophistication with user-friendly simplicity.



- **Intuitive Interface:** Boasting a dual-interface system, our device offers a user-friendly experience. Navigate effortlessly through the local mode using the large 4.3" touchscreen color display, or switch to the remote mode via PC for added convenience.
- **Comprehensive Software:** Supplied complete with VICASOFT-BASIC for data processing, our system also offers an optional VICASOFT-PREMIUM software, allowing connection of up to 32 independent units to a single PC via LAN port and hub. This facilitates remote control, maximizing laboratory productivity through a multi-test network concept.
- **Integrated Graphic Printer:** Opt for the optional accessory of an integrated graphic printer, displaying results in both numerical format and a setting time plot, enhancing data visualization.
- **User-Friendly Configuration:** Easily set and store user-defined test profiles, enabling swift test initiation and ensuring flexibility in adapting to varying testing requirements.
- **Spacious Test Space:** Enjoy large accessibility to the test space, promoting convenience during testing procedures.
- **Optional In-Water Testing Accessory:** For added practicality, consider the optional in-water testing accessory, offering the versatility of the system.
- **Automatic Setting Time Determination:** Improve your testing process with automatic determination of both initial and final setting times, ensuring precision and efficiency.

### Automatic Vicat Apparatus Technical Specifications

Model	Vicatronic
Display	4.3" Touch Screen Color Display
Connection	LAN port for direct connection to PC of a single unit or connection to a LAN hub for creating a network with up to 32 independent units all controlled by a single PC. 1 LAN cable is included
Storage Connection	USB Data Output and Storage on USB Drive
Test Procedure	Customized test procedures and based on user-defined requirements



<b>Data Output</b>	Optional integrated graphic printer shows the test results and setting time plot
<b>Test Space</b>	Large testing area
<b>Calculation</b>	Automatic calculation of initial and final setting time at programmable penetration depth limits
<b>Accessories</b>	EN and ASTM/AASHTO parts, in-water testing kit, needle cleaning device, integrated printer and probes for testing the consistency of gypsum
<b>Penetration Rate</b>	10 seconds
<b>Penetration Measurement</b>	Measured with an encoder
<b>Penetration Resolution</b>	0.1mm
<b>Power</b>	230V 1ph 50/60Hz 50W
<b>Dimensions</b>	15.8 x 7.9 x 16" / 40 x 20 x 41cm
<b>Approximate Weight</b>	29lbs / 10kg

## Software Specifications

- Easy programming of customized test profiles, recallable for future tests, including:
- Adjustable test start delay
- Positions of penetration points
- Manual or automatic penetration rate
- Free or driven dropping mode
- Holding intervals within the sample
- Automatic end-test detection
- Automatic measurement of initial and final setting time
- Test data: test number, operator, client, date, hour, cement type, water percentage, delay
- User-friendly calibration menu
- Clock calendar
- Multi-language support



## Automatic Vicat Apparatus Accessories

- Accessory for Continuous Needle Cleaning and In-Water Testing
- LAN hub enabling PC connection for up to 7 VICAMATIC-2 units, or up to 6 units in a multi-hub network. The LAN cable from the hub to the PC is included, and each VICAMATIC-2 unit is supplied with a complete LAN cable.
- Upgrade option for incorporating a graphic printer into the VICAMATIC-2 unit's head. The factory-installed upgrade includes plotting test settings and results in both numerical and graphical formats, including a penetration depth/time diagram.
- Needle designed for Final Setting Test EN
- Cylindrical Probe for Consistency Test
- Water thermostatic unit for VICAMATIC-2, allowing connection of up to 2 units. Operates on 230 V, 50-60 Hz, 1 ph.
- Conical penetration probe with a diameter of 8 mm and a length of 50 mm, complete with a 100g calibrated weight for gypsum testing to EN 13279.
- Cylindrical probe and additional weight for the consistency test to ASTM C807.
- 2 mm diameter needle for ASTM C807
- Brass cylindrical mould for ASTM C807
- VICASOFT-PREMIUM Software for PC connection of up to 32 VICAMATIC-2 units, enabling remote control of each unit, data acquisition, processing, filing, and printout of test reports. Communication via LAN port (each VICAMATIC-2 unit is supplied complete with a LAN cable). Direct connection of one VICAMATIC-2 unit via the PC LAN port, and for more units (up to 32), LAN hubs with a total number of ports equal to or greater than the number of VICAMATIC-2 units in the network are required (LAN hubs not included).

## Automatic Vicat Apparatus Spare Parts

- Thermo-paper roll for printer (pack of 10 rolls)
- Tang
- Probe 300g
- Needle Ø 1 mm, ASTM
- Needle Ø 1.13 mm, EN
- Plastic mould Ø 60/70 mm, ASTM
- Glass base plate
- Plastic mould Ø 70/80 mm, EN, NF

**\* Request a [formal quotation](#) or send an e-mail to [sales@nextgentest.com](mailto:sales@nextgentest.com) for the most up-to-date pricing and applicable discounts and incentives.**