

NEW

VICAMATIC Automatic recording Vicat apparatus

MAIN FEATURES

- Automatic test cycle.
- Double recording: analogic on paper and digital by electronic sensor.
- Storing of test results, settings and data.
- Large graphic display to follow the test in real time.
- RS 232 C output to download to PC and printer.
- High flexibility in programming the test cycles as test start delay, dropping rate auto-mode, free or driven drop.
- RS 485 network facility for connection of up to 16 independent VICAMATIC apparatus for data acquisition and processing.
- Fully conforming to EN, ASTM, AASHTO, BS and similar standards.
- High versatility and vast applications: from the standard use in local laboratories to the multiple use in research and central laboratories.
- 5 languages: Italian, English, French, Spanish, German.



VICAMATIC complete with needle cleaning device and in-water testing kit.



Schematic view of a multiple Vicat testing systems (up to 16) connected to PC.

Introduction

The setting time determination of cement and mortars is one of the most important parameter for the quality inspection and verification. Furthermore the production and use of new mortars, admixtures and similar materials with the relative research activity has highlighted the need of sophisticated test apparatus capable of performing a variety of independent test cycles and procedures on numerous specimens.

Our new VICAMATIC apparatus fully satisfy these requirements being, for instance, capable of performing tests with start delay, adjustable dropping rate auto-mode and free or driven drop. The VICAMATIC apparatus can also be equipped by the needle cleaning device with water container for testing in water as prescribed by EN.

The installed firmware allows the PC connection via the RS 232 C port and the extension to a Multiple Testing System to up to 16 apparatus via the RS 485 port.

The high versatility and flexibility of the VICAMATIC apparatus is summarised below.

Use of a single apparatus

Main advantages:

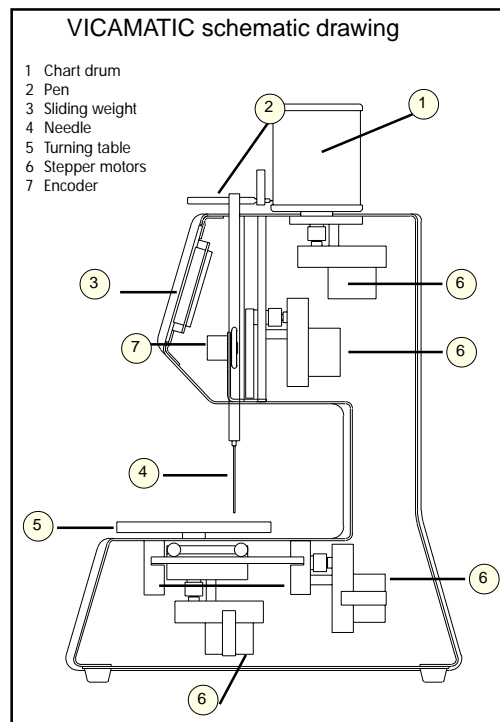
- **Production of a test graph report on paper.**
- **Display of test data in real time.** See description of this unique feature in the Firmware paragraph.
- **Possibility of connection to a simple serial printer (See accessories) to produce the test data report as a completion of the test graph.**
- **Possibility of connection to PC via RS 232 C port.**

All the above features represent the most advanced thus economical solution for general laboratory use.

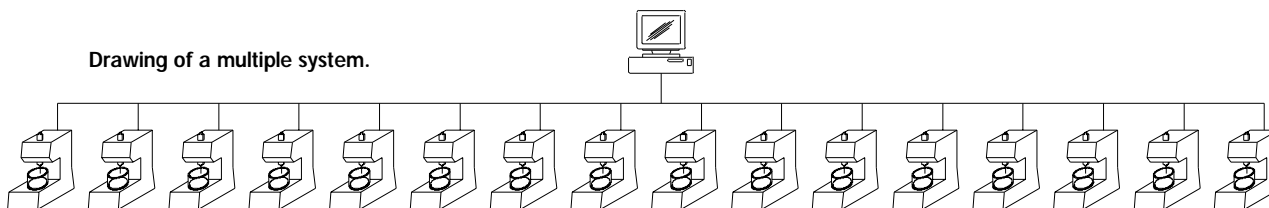
Use of a multiple system

Main advantages (in addition to the above):

- **Test system extendible any time to up to 16 units for PC connection.**
- **The single units to be connected to the PC network can be located in different places and not necessarily all together (See the Software paragraph).**
- **The possible stop (e.g. for maintenance) off a single unit does not prevent from the use of the other units.**
- **The units can be independently programmed.**



Drawing of a multiple system.



The needle cleaning device and in-water testing kit (see accessories).

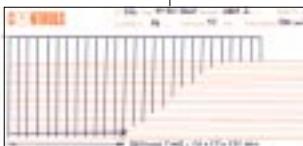


VICAMATIC connected to serial printer (see accessories).

VICAMATIC V1.02
Record Number 1

[11/10/02] [08:43]

Test number: 0000000134
Standard: EN 196
Operator: ROBERT RED
Customer: ALFA COMPANY
Preparation date: 11/10/02
Preparation time: 08:20
Cement Type: CEM I
Water Content: 52.00 %
Temperature: 20.0 Gr
Relative Humidity: 74.0 %
Dropping mode: Free Drop
Delay: 035 min
Dropping rate: Automatic Mode
T1: 0600s T2: 0300s
Threshold: 38.0 (mm)
Readings:-----
01 08:43(hh:mm) 39.5 (mm)
02 08:53(hh:mm) 39.3 (mm)
03 08:03(hh:mm) 39.8 (mm)
04 09:13(hh:mm) 39.4 (mm)



Report printed after test execution with serial printer and setting curve plotted on paper diagram.

General description

The apparatus consists essentially of a mechanism which moves by four different stepper motors, the sliding weight with needle, the rotation and displacement of the table and the chart drum. The displacement of the sliding weight with needle is recorded by a pen in the chart drum and also read by an encoder for the data acquisition.

The automation of the system is obtained by an electronic control card with microprocessor. The front control panel includes the membrane keyboard with large graphic display.

Technical specifications

Total rating: 25 W

Dimensions (lxwxh): 180x300x440 mm

Weight approx.: net ... kg

Voltage: 230 V, 50-60 Hz, 1 ph. or 110 V, 60 Hz, 1 ph.

Firmware specifications

The test parameters to be set are the following:

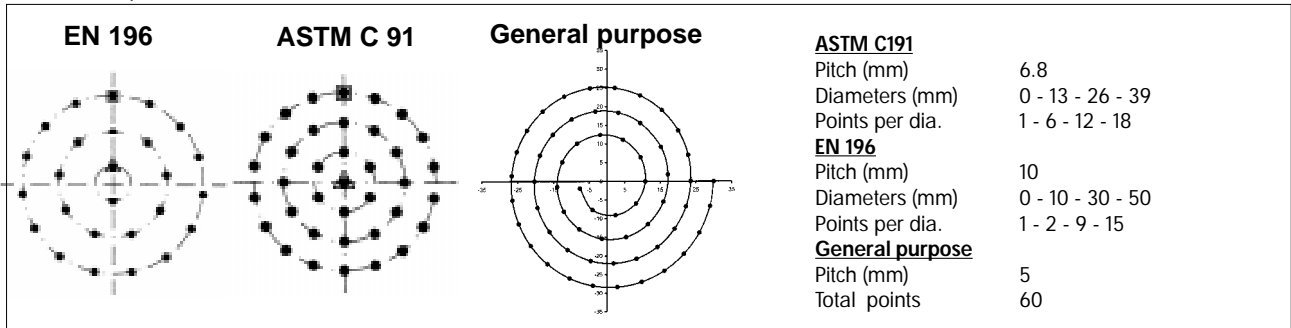
- Reference standards: EN, ASTM, General purpose, single drop.
- Frequency of penetrations (to be selected between frequency input by user or calculated semiautomatically).
- Free fall mode or driven fall mode.
- Adjustable test start delay.
- Penetration measurement by encoder.
- Test data: test number, operator, client, date, hour, cement type, water percentage, humidity, delay, mode (automatic or manual).
- Permanent memory for data storage.
- Clock calendar.
- 5 languages: Italian, English, Spanish, French, German.



Display sample screens.



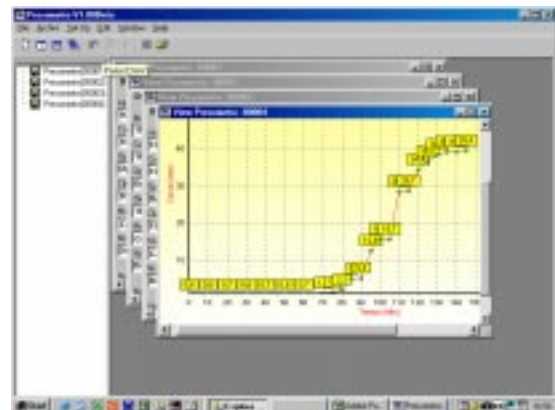
Available test paths



Multiple configuration: Test software

The multiple option (from 2 to 16 units) has been carried out for PC connection with the testing software (See accessories) giving the following performances:

- real time display of the setting curve of all connected units.
- Zoom and curve displacement option and measurement of intervals between two selected points by graphic cursors.
- Each curve window can be changed to the display of test data
- Memory storage of all test data and diagrams by exportable database.
- Generation of test files.
- Printing of test certificate including logo and client letterhead, setting curve and test data.
- 5 versions for the following languages: English, Spanish, French, German, and Italian. To be specified at time of order.



PC software - Data screen.

Ordering information

Apparatus

Code	Description
63-L0027/E (63-L0027/EZ)	VICAMATIC automatic electronic apparatus for setting time measurement comprehending needle 1.13 mm dia, plastic mould to EN, glass base plate, pack of 5 pens, 100 recording charts. 230 V, 50-60 Hz, 1 Ph (110 v, 60 hZ, 1 Ph).
63-L0027/F (63-L0027/FZ)	VICAMATIC automatic electronic apparatus for setting time measurement comprehending needle 1 mm dia, plastic mould to ASTM/AASHTO, glass base plate, pack of 5 pens, 100 recording charts. 230 V, 50-60 Hz, 1 Ph (110 v, 60 hZ, 1 Ph).



VICAMATIC.

Accessories

Code	Description
63-L0027/E10	Accessory for needle continuous cleaning and in-water testing. Complete kit
63-L0027/E11	Kit for the PC connection in a network logic of up to 16 VICAMATIC apparatus comprising data acquisition and elaboration software and RS 232 - RS 485 conversion module
63-L0027/E12	RS 485 serial cable for the PC and network connection of VICAMATIC apparatus. Single piece length 5 m
63-L0027/E17	RS 232 serial cable for the PC connection of a single VICAMATIC apparatus. Length 3 m
63-L0027/E13	40 columns serial printer complete with serial cable for the machine connection
63-L0027/E14	Needle for final setting test to EN
63-L0027/E15	Cylindrical probe for consistency test complete with weight calibrated dropping needle bearer
63-L0027/E16	Additional weight 700 g



Serial printer 63-L0027/E13.



Consistency probe 63-L0027/E15.

Spare parts

Code	Description
63-L0027/E20	1.13 mm diameter needle to EN
63-L0027/E21	1 mm diameter needle to ASTM/AASHTO
63-L0027/E22	Plastic mould to EN
63-L0027/E23	Plastic mould to ASTM/AASHTO
63-L0027/E24	Glass base plate
63-L0027/E25	Glass base plate for the in-water testing device
63-L0027/E26	100 recording charts
63-L0027/E27	Pack of 5 pens including one pen holder



Moulds and glass base plates.



Needles 1.13 mm, 1 mm, final setting.



Recording charts and pens.



Additional weight 700 gr.

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