



AUTO VICAT

Automatic Vicat Needle

NEW DESIGN

Reference 111-100399

Application

The AUTO-VICAT automatic Vicat needle is a 32 bits equipment, of the last generation which enables to perform the following tests automatically:

- Initial and final setting time in cement, as per EN 196-3: 2005 and ASTM C191.
- Setting times in gypsum as per EN 13.279-2.
- Normal consistency as per EN 196-3: 2005 and ASTM C187.
- Setting times in additives for concretes, mortars and pastes, as per EN 480-2.
- Any other standard or testing procedure, by means of **standard editor** incorporated and easily programmable by the user himself.

The AUTO-VICAT automatic Vicat needle, developed by the R&D department of S.A.E IBERTEST, combines the following main features:

- Attractive design and extremely easy to use
- Light with reduced dimensions
- Components of the last generation.
- Maximum performance qualities. Completely reliable.
- The test is completely registered in the graphic screen as in the integrated printer.
- Free fall or guided fall, can be selected by the user
- Total connectivity via USB 2.0 for external control and data acquisition via PC by means of specific software, under WINDOWS.

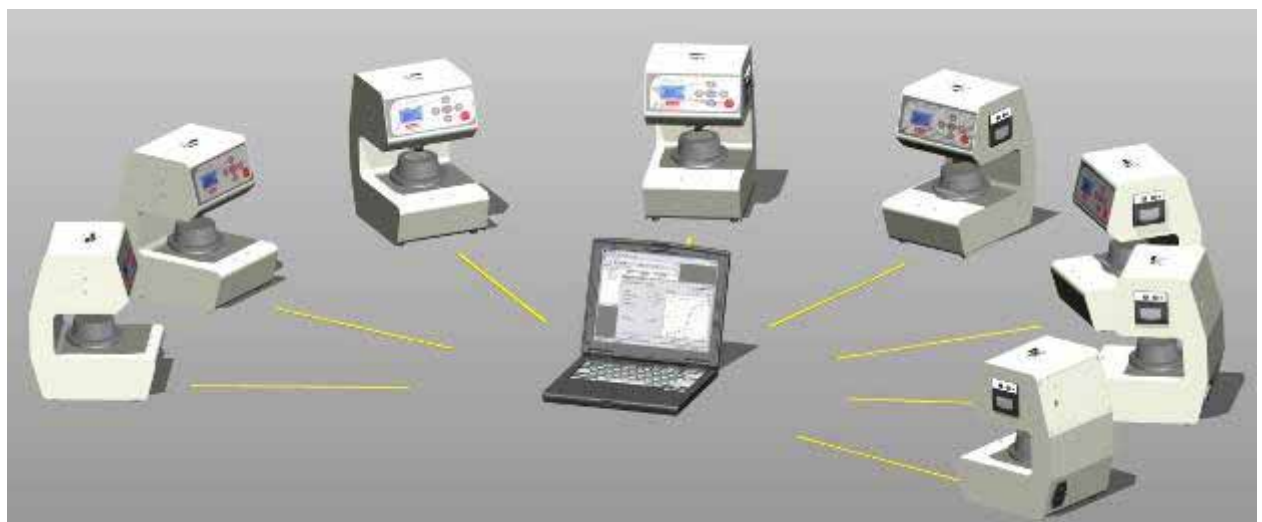


- Possibility of configuration by the user, depending on his particular test needs.

The user can choose the time between penetrations, the number of penetrations in each interval, the distance between concentric and repeated penetrations, the distance of penetration to the mould edge, if a second operation is required, etc.

An algorithm calculates the maximum number of penetrations to comply with the conditions imposed by the user and applies it automatically.

- Possibility of forming groups, in battery, of practically an unlimited number of equipment and commanded by one sole PC (thanks to a multiport USB 2.0 hub) and a software pack VICATEST, of 32 bits, under WINDOWS XP.





Detail of the front panel with 6-keys sensitive keyboard and graphic screen.

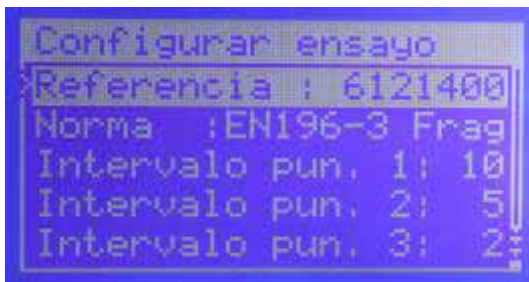
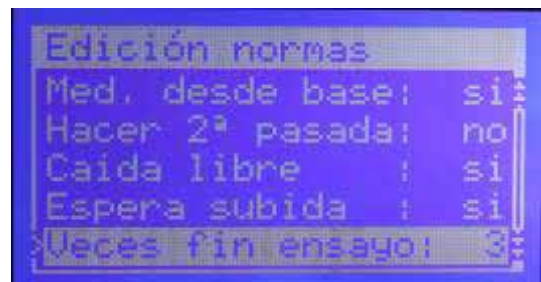
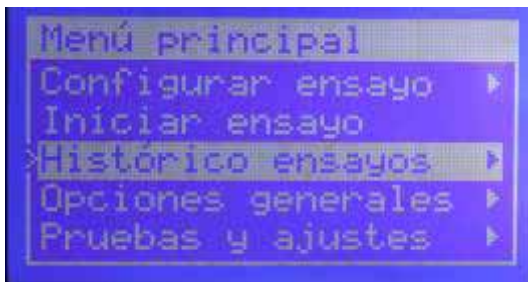


Detail of the integrated printer. The user can choose himself the impression sense in the paper.



Technical characteristics

- **Multi-standard.** 6 standards (EN and ASTM) configured and pre-recorded and 9 additional standards programmed by the user according to his specific needs, directly on the equipment menus or externally from a PC by means of an application for WINDOWS.
- Controlled by a 32 bits **microprocessor** of the last generation.
- High resolution (128 x 64 points) **LCD graphic screen** in inverted blue, with retro – illumination.
- Frontal membrane board, with 6-keys **sensitive keyboard**. It protects display and allows surfing menus, select and / or configure tests, parameters, start the test, etc.
- **Control** of the exact position of penetration by **stepping motors**.
- Extraordinarily precise **measure** (better than +/- 0.1 min) of **penetration depth by digital encoder**.
- **High resolution graphic printer**, which allows the printing of complete test reports (parameters, graphs, individual measures and results: initial and final setting time, duration of test, etc). Paper width: 58 mm. Printing width: 48 mm.
- **Needle automatic cleaning** device.
- **Language selectable** by user: Spanish, English, French or Portuguese.
- Time between penetrations can be **modified by user** from 1 to 99 minutes at any time during test.
- **EEPROM memory** (non volatile) that stores user different configurations and the **last 100 complete tests performed**, even in those cases of electrical supply failure.



- **Connection to computer by USB**, allowing remote control from the PC as well as automatic data acquisition (by means of optional software package, of 32 bits, under Windows) realization of graphs, complete test reports, statistics, etc.
- Mains: single phase 220 V, 50 / 60 Hz or 110 V, 60 Hz (to be specified)
- Rated power: lower than 40 W.
- Dimensions: 230 x 290 x 355 mm (width x depth x height)
- Weight: 16 kg
- Working temperature: from -10 to +40° C
- Working relative humidity: from 20 to 80%.

Standard delivery

The equipment is supplied complete with:

- ✓ 1 stainless steel sliding weight needle-holder for setting tests as per EN 196-3 or ASTM C191 (according to the needle mounted).
- ✓ 2 needles: 1.13 mm diam as per EN or 2 needles: 1 mm diam as per ASTM (to be specified).
- ✓ 3 truncoconical moulds as per EN or ASTM (to be specified)
- ✓ 1 immersion bath with centring ring for mould and glass plate.
- ✓ 1 circular glass plate.
- ✓ 1 needle cleaning device.
- ✓ 1 thermal printer with 5 rolls of paper.
- ✓ 1 USB port for a connexion to the PC.



Mould, glass and sliding weight with needle as per EN-196-3.



Mould, glass and sliding weight with needle as per ASTM C191



Immersion bath, centring ring and glass plate (EN and ASTM).



Mould, glass and sliding weight with conical needle for gypsum as per EN 13.279-3.



Mould, glass and sliding weight with needle and counterweight for additives as per EN 480-2

Accessories and Spare parts

111-101055. Stainless steel sliding weight needle-holder for setting tests as per EN 196-3 or ASTM C191, according to the needle mounted (EN or ASTM). These needles are interchangeable. Total weight of the mobile set 300 g. (Fig. 1).

111-100376. Light alloy sliding weight and stainless steel conical needle (total weight of the mobile set 100 g) for gypsum tests as per EN 13.279-2 (Fig. 2).

111-100409 Stainless steel sliding weight probe-holder, with a 10 mm diameter x 50 mm length probe (total weight of the mobile set 300 g), for consistency tests as per EN 196-3 and ASTM C-187 (Fig. 3).

111-100410 Stainless steel sliding weight needle-holder with 1,13 mm diameter needle and total weight of the mobile set of 1000 g (for setting times tests in additives for concrete, mortar and paste, as per EN 480-2) (Fig. 4).



Fig. 1



Fig. 2



Fig. 3



Fig. 4

111-100258 1.13 mm diam needle as per EN 196-3 and EN 480-2 (for codes 111-101055 and 111-100410)

111-101167 1 mm diam. needle as per ASTM C191 (for code 111-101055)

111-100411. Stainless conical needle for gypsum as per EN 13.279-3 (for code 111-100376)

111-100412. Stainless probe, 10 mm diameter x 50 mm length, for consistency tests as per EN 196-3 and ASTM C-187 (for code 111-100409).

111-100110. Truncoconical mould as per EN 196-3, EN 480-2 and EN 13.279-2

111-100109. Truncoconical mould as per ASTM C191 and C187

111-100311 Immersion bath with centring ring for moulds as per EN and ASTM

111-100348 Circular glass plate 109 mm diam

111-100413 Set of 2 Brushes for the needle cleaning device.

210-100920 Pack of 5 rolls of printer paper.

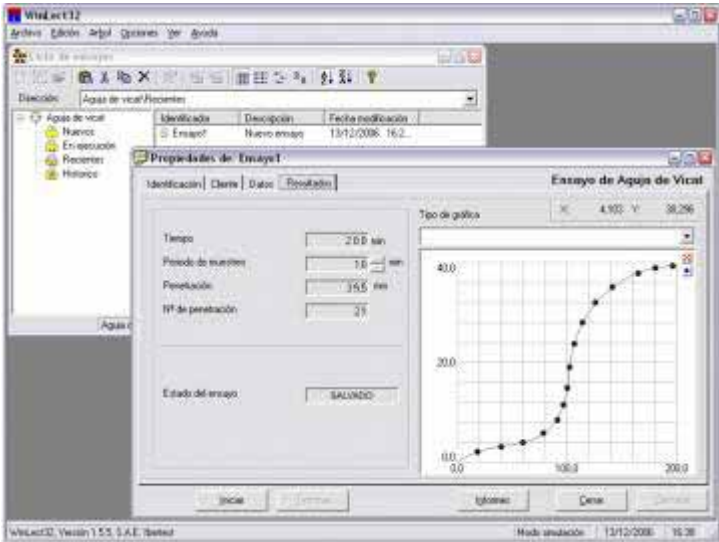
Complementary equipment:

111-100398 Software pack VICATEST, 32 bits, for WINDOWS XP.

It allows programming, control and data acquisition (results and test graphs, curves comparison, statistics, etc) of practically an unlimited number of AUTO-VICAT equipment, simultaneously, from one sole PC, through a multiport USB 2.0 hub.

It includes a tests editor which enables to program and display the division and number of resulting penetrations to send directly the data to the equipment once they are validated.

Results screen of VICATEST software, with graphs of the test.



Examples of configuration of different standards achieved with the VICATEST software testing editor



Cement setting as per EN 196-3



Cement setting as per ASTM C-191



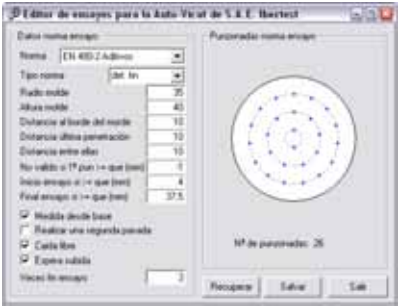
Gypsum setting as per 12.379-2



Cement consistency as per EN 196-3



Cement consistency as per ASTM C-187



Additives setting as per EN 480-2

S.A.E. IBERTEST se reserva el derecho de modificar la presente información técnica sin previo aviso.