

DATA SHEET

Penetrometer, Fully Automatic Model - PIVOT



PIVOT Fully Automatic Penetrometer 81-PV0103

General description

A compact instrument, microprocessor controlled, using the latest technologies and programming tools. It includes a 6" lateral touch screen display, intuitive and easy to use, which shows the penetration/time curve and can display and average up to 6 tests.

The instrument reaches the test start point automatically, and it is supplied with an integrated led lamp.

The vertical movement is performed by a high precision stepper motor and measured by a contactless displacement transducer. The device also has the possibility to recall the vertical position for repeated tests.

The test should be performed placing the penetration cup in thermostatically controlled water, using a suitable device as our water bath with thermoregulator and immersed probe (see accessories).

The apparatus is supplied complete with outfit for penetration of bituminous materials (needle, needle holder, 50 g weight, 150 g additional weight and 6 containers), centering guide, anodized aluminium base plate with spirit level and adjustable leveling feet. USB flash drive for saving data and test reports included.

Main features

- Fully automatic operation. The entire test cycle (rapid approach, starting point determination, penetration and return to the initial position) is automatically performed by simply pressing the start button on the touch screen display
- Rapid approach and automatic starting point determination to eliminate any operator inaccuracy during needle position
- Penetration measurement via contactless displacement transducer, with 0.01 mm resolution
- Real time display of penetration/time curve
- 6" color touch screen display, easy to use thanks to the user friendly software
- High precision vertical movement by stepper motor
- Eight programmable reference positions for the holder assembly
- Saves time and grants first class results

Standards

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- EN 1426
- ASTM D5
- AASHTO T49
- JIS K 2207
- IP 49
- DIN 52210
- NF T66-004
- ASTM D217

Specifications

Programmable reference positions for holder assembly: 8

Programmable penetration time: 0-9999 sec

Programmable delay time: 0-999 sec

Penetration range: 0-50 mm

Penetration resolution: 0.01 mm

Tests simultaneously displayed: up to 6

Languages: English or Italian

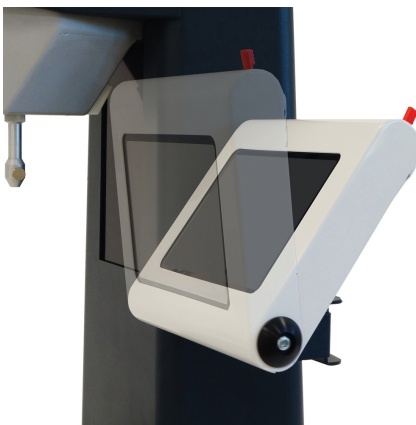
Connections: USB port for test database and Lan port for PC connection

Overall dimensions (wxdxh): 360x410x680 mm

Weight approx.: 21 Kg

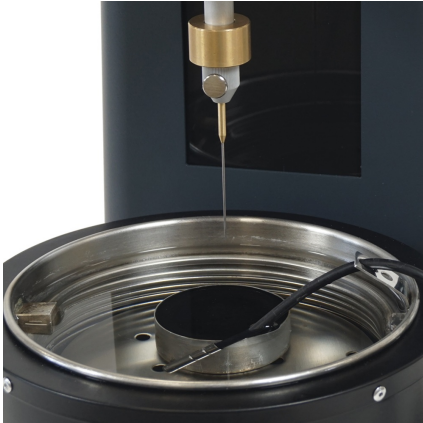


Rear connections: USB, LAN and power supply



Adjustable inclination of the touch screen display

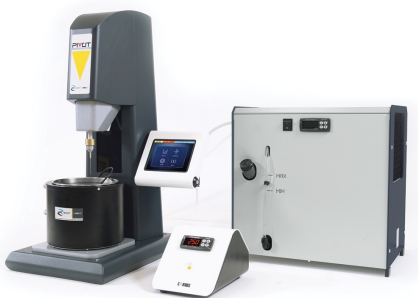
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Detail of the starting point determination in the digital water bath

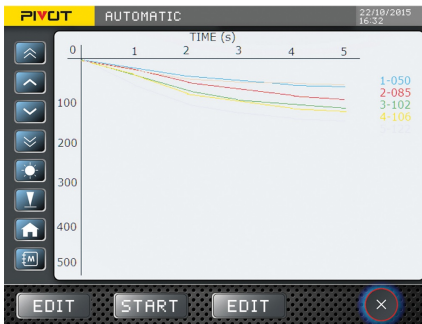


Pivot Automatic penetrometer with 81-PV0102 water bath with thermoregulator

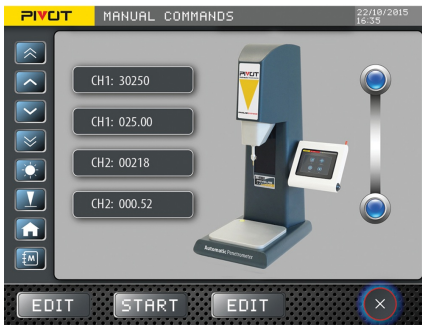


Pivot Automatic penetrometer with 81-PV0102 water bath with thermoregulator and 81-PV0102/CH chiller

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Graphical real time display of the penetration tests



Manual adjusting of the needle position (alternative to automatic mode)



Standard penetration cone 81-B0115

Products

81-PV0103

PIVOT Automatic Penetrometer, microprocessor controlled. 110-230V/50-60Hz/1ph

Accessories and consumables

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81-B0100/1

Mirror with adjustable holder

81-B0110/A

Sample cup dia 55x35 mm. Kit of 6.

81-B0110/B

Aluminium cup dia 70x45 mm. Set of 6

81-B0113

Penetration needle made from hardened polished stainless steel. Univocally traceable by engraved serial number. Conforming to ASTM D5 and EN 1426. Supplied with conformity certificate.

81-B0113/A

Penetration needle made from hardened polished stainless steel. Univocally traceable by engraved serial number. Set of 3. Conforming to ASTM D5 and EN 1426. Supplied with conformity certificate.

81-B0113/1

Penetration needle, fully hardened, tempered and polished stainless steel. Conforming to ASTM D5 and EN 1426. Supplied complete with official UKAS Verification Certificate

81-B0115

Standard penetration cone

81-PV0102/A

Water bath for penetration test complete with internal water coil, support for specimen and water connections. To be used with external chiller series 81-PV0102/CHx

81-PV0102/CH

Water chiller, with temperature controller with $\pm 0,1$ °C accuracy and fluid temperature range between 5 and 30 °C. Suitable for chilling penetrometer water baths or temperature controlled setting time tests. 230V/50-60Hz/1ph

81-PV0102/CHZ

Water chiller, with temperature controller with $\pm 0,1$ °C accuracy and fluid temperature range between 5 and 30 °C. Suitable for chilling penetrometer water baths or temperature controlled setting time tests. 110V/60Hz/1ph

82-B0100/6MF

Thermometer IP 38C range + 23 to 27°C, mercury free with alternative liquid

82-B0122/4MF

Thermometer ASTM S63C, range -8 to +32°C, mercury free with alternative liquid

82-B0125/2MF

Saybolt thermometer ASTM 17C, range +19 to +27°C, mercury free with alternative liquid.

81-PV0102

Water bath for bitumen penetration tests, including heating controller and cooling coil, immersion temperature probe, internal support grid and connections to mains water. Temperature range 25 to 60 ± 0.1 °C. 230 V, 50-60 Hz, 1 ph

81-PV0102/Z

Water bath for bitumen penetration tests, including heating controller and cooling coil, immersion temperature probe, internal support grid and connections to mains water. Temperature range 25 to 60 ± 0.1 °C. 110 V, 60 Hz, 1 ph

81-B0109/A

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Transfer dish with support and locking elements for 55 mm dia. and 70 mm dia. sample cups

81-PV0113/AM

Magnetic penetrometer needles for PIVOT automatic penetrometer, 2.5 ± 0.05 g. Set of 3.