



ADVANCED PAVEMENTS TESTING SYSTEMS

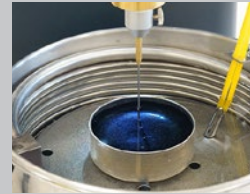
PIVOT

Fully Automatic Penetrometer



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 eliminate any operator inaccuracy during needle positioning
- > 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 our user-friendly software
- > Saves time and delivers first class results



Standards EN 1426 | EN13380-2 | ASTM D5 | ASTM D127 | AASHTO i49 | AFNOR T66-004 | DIN 52210 | IP 49 | JIS K 2207

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 & average up to six tests. The instrument reaches the test start point automatically and 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 the 81-B0102/D Digital circulation water bath with conditioning vessel. Please refer to our accessories on page 3.

Ordering information

81-PV0103

Automatic Penetrometer, microprocessor controlled

- Fully automatic test cycle including rapid approach and zero point determination
- Penetration range: 0-50 mm with 0.01 resolution, measured with contactless displacement transducer
- Intuitive and easy to use touch screen display (640 x 480 px)
- Real time display of penetration/time curve
- USB Port for test database and LAN port for PC connection
- Supplied with USB flash drive and outfit for penetration of bituminous materials: needle, needle holder, 50g weight, 150g additional weight and 6 containers
- 110–230V, 50–60 Hz, 1ph.

Standard outfit

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

Specifications

- Integrated automatic approach and positioning functions
- Intuitive and easy-to-use touch screen display
- Eight programmable reference positions for the holder assembly
- High precision vertical movement by stepper motor
- Programmable penetration time between 0 and 9,999 sec
- Programmable delay time between 0 and 999 sec
- Range: 0 to 50mm (penetration 500dmm)
- Penetration resolution: 0.01mm
- Possibility to recall the vertical position for repeated tests
- Penetration measurement by contactless displacement transducer
- Possibility to display and average up to six tests
- Anodized base plate with spirit level
- Connections: USB port for test database and LAN port for PC connection
- Adjustable leveling feet & led lamp included
- Overall dimensions (WxDxH): 360x410x680mm
- Weight approx.: 21kg

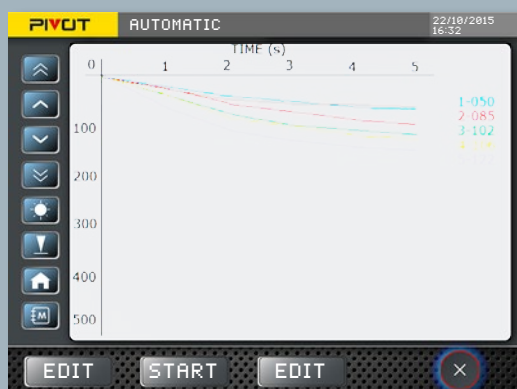
Software



Calibration of the contactless displacement transducer



Alternative manual adjustment of the needle position



Graphical real time display of the tests

Accessories

Penetrometer needles

81-B0113

Penetrometer needle, 2.5 ± 0.05 g. fully hardened, tempered and polished stainless steel. Conforming to ASTM D5 and EN 1426. Supplied complete with conformity certificate.

81-B0113/A

Penetrometer needles, 2.5 ± 0.05 g. fully hardened, tempered and polished stainless steel. Conforming to ASTM D5 and EN 1426. Supplied complete with conformity certificate. Set of three pieces.

81-B0113/1

Verified penetrometer needle 2.5 ± 0.5 g. fully hardened, tempered and polished stainless steel. Conforming to ASTM D5 and EN 1426. Supplied complete with official UKAS Verification Certificate.



81-B0113, penetrometer needle

81-PV0113/AM

Magnetic penetrometer needle, 2.5 ± 0.05 g. Set of three pieces.

81-B0115

Standard penetration cone conforming to ASTM D217 and EN 13880-2.



81-B0115

Sample cups

81-B0110/A

Sample cup, dia. 55x35 mm. Set of 6 pieces.

81-B0110/B

Sample cup, dia. 70x45 mm. Set of six pieces.



81-B0110

Glass transfer dish

81-B0109

Glass transfer dish with support, 100 mm dia. x 100 mm high.



81-B0109

Thermometers

82-B0100/6

IP 38 C Thermometer, range from $+23$ to $+26$ °C, 0.1 °C graduation.

82-B0125/2

EN thermometer, range from $+19$ to $+27$ °C, 0.1 °C graduation, type ASTM 17C.

82-B0122/4

EN thermometer, range from -8 to $+32$ °C, 0.1 °C graduation, type ASTM 63C.

Digital circulation water bath with cooling unit

81-B0102/D

Water temperature controller for penetration test, complete with heating and cooling controller, external temperature probe, internal support with locking elements for 55 mm dia. and 70 mm dia. sample cups 230V, 50–60Hz, 1ph.

81-B0102/DZ

As above but 110V, 60Hz, 1ph.

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www.controls-group.com/ipcglobal

IPC Global

E ipcglobalsales@controls-group.com www.controls-group.com/ipcglobal

CONTROLS Group

T +39 02 92184 1

F +39 02 92103 333

E sales@controls-group.com

www.controls-group.com

Italy (HEAD OFFICE)

www.controlsitalia.it

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