

**B059M
SMARTIP
FULLY AUTOMATIC PENETROMETER**

SMARTIP is an automatic apparatus for the determination of the needle penetration in a bitumen sample, avoiding any operator error and providing high repeatability of results. It is a smart instrument adopting the latest technologies, integrated microprocessor control and user-friendly interface.



The instrument automatically reaches the contact point before starting the test and the penetration result is measured by a high performance contactless displacement transducer.

Cyber Plus Progress
7" colour touch screen with smart interface.

Ultra-bright LED lamp helps the operator to detect the touch point of the needle while a stepper motor controls the vertical movement to reach exactly the desired point without any manual adjustment of the plunger.

MAIN FEATURES

- Fully automatic test simply pressing the START button: approach, touch point, penetration.
- Automatic identification of the needle contact point and needle positioning, avoiding any operator error and providing high repeatability of results.
- Electro-magnetic needle probe release.
- Automatic zeroing before starting penetration.
- Penetration measurement by a high-tech contactless displacement transducer with 0.01 mm resolution, range 0 - 50 mm.
- 7" touch screen display with user-friendly and clear interface.
- Real time display of penetration/time curve, average result and test temperature.

TECHNICAL SPECIFICATIONS

- Measuring range: 0 – 50 mm;
- Resolution: 0,01 mm;
- 7" touch screen display;
- Test time 5 s (adjustable from 0 to 9999 s);
- Programmable delay: from 0 to 999 s;
- Programmable reference positions for holder assembly: 8;
- Test simultaneously displayed: up to 10;
- Connection: USB port and LAN port for PC connection;

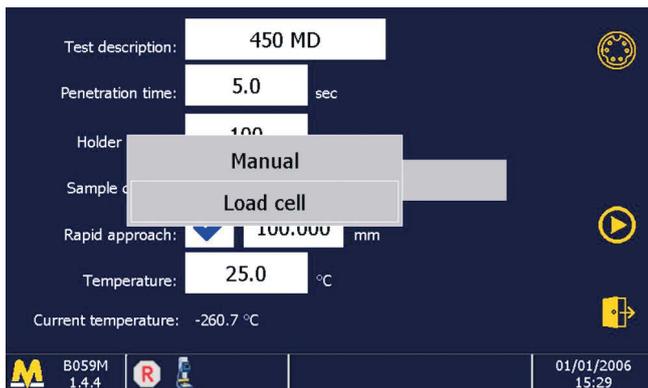
Power supply: 110-230V 50-60Hz 1ph

Overall dimensions: 325x400x730 mm

Weight approx.: 25 Kg approx.

- STANDARDS: EN 1426 | ASTM D5 | AASHTO T49 | ASTM D217 | BS 1377-2 | NF T66-004 | DIN 52210 | IP 49 | JIS K 2207
- SMARTIP CAN BE UPGRADED WITH A DEVICE FOR AUTOMATIC MEASUREMENT OF ELECTRICALLY CONDUCTIVE SAMPLES
- THE TEST IS ALSO SUITABLE FOR BITUMINOUS BINDERS RECOVERED FROM BITUMINOUS MIXES, E.G. BY EXTRACTION OR AGED WITH RTFOT AND PAV

CYBER PLUS PROGRESS - USER INTERFACE AND EASY TO USE STEP-THROUGH OPERATION



Possibility to choose the contact mode automatic by load cell or manual.



The plunger returns at the initial position at the end of each test by a simple recall command in order to re-positioning the needle before the new measurement.



Real time penetration/time graph, test temperature and average result from a batch of tests.



SMARTIP is supplied complete with the accessories for determination of the needle penetration according to standards.

SPECIMENS CONDITIONING

The machine can be equipped with optional devices for conditioning the specimens in water. Including water bath for temperature 25 ° C and water chiller for temperature between 5 ° C and 30 ° C.

