

B038 UNITRACKER SINGLE WHEEL TRACKING APPARATUS

STANDARDS: EN 12697-22 | BS 598:110 | Comparable to NF P98-251-1, P98-251-4

This machine is used in laboratory, for evaluating the deformation (rut) depth of a bituminous mixture subjected to cycles of passes of a loaded rubber wheel under constant and controlled temperature conditions. To perform the test, a wheel tracking apparatus is used to simulate the effect of traffic and to measure the deformation susceptibility of the bituminous sample.

Matest wheel tracker fully satisfies both EN 12697-22 and BS 598:110 specifications and may perform the test following both procedures A and B, clearly specified by the EN Standard.



B038 with open doors

MAIN FEATURES

- Accepts mould up to 500x400 mm, 180 mm high.
- Perfectly fit for slabs made by Matest ARC Asphalt Roller Compactor.
- Continuous realtime rut depth measurement.
- Three temperature probes for temperature control and adjustment.
- Automatic control of machine and test.
- Realtime display of: number of cycles, rut depth, temperatures.
- Realtime cycle rate also displayed when using a serial connection to PC.



B038 detail

TECHNICAL SPECIFICATIONS

- Travel of the table: 230 ± 5 mm
- Table cycle frequency: adjustable 15 to 40 cycles per minute.
- Hard rubber tyred wheel having outside diameter 200 mm
- Wheel load on the sample:
700N ±10N (EN 12697-22) or 520N (BS 598:110)
The load is applied on the sample through a lever.
The effective load applied on the sample can be adjusted by micrometrical weights positioning.
- Continuous real time rut depth measurement (penetration of the wheel into the sample) through a linear transducer 40 mm travel by 0.01 mm accuracy.
- The test frame is made of robust aluminium alloy and it is contained in a climatic cabinet **with adjustable temperature from 30 to 65 °C ± 1.0 °C**
The cabinet is equipped with two doors with insulated glass for inspection
- The sample table has dimensions: 400x390 mm and can accept rectangular slabs of several sizes:
305x305 mm, 50 or 100 mm high
400x305 mm, 50 or 100 mm high
200 mm dia. core samples, 50 mm high
The sample confinement frames are not included and have to be ordered separately (see accessories)
- Matest wheel tracker accepts also samples with dimensions up to 500x400 mm, 180 mm high (this mould can be compacted with Matest ARC: Asphalt Roller Compactor)
- The machine is supplied complete with adaptors for a correct mould positioning and locking
- The wheel tracker is equipped with 3 temperature probes:
1 probe, connected to the thermoregulator, for the control and adjustment of the cabinet temperature.
2 probes for temperature measurement inside the specimen.

HARDWARE

- Data acquisition and processing system fully managed by micro-processor.
- Multifunctions keyboard with encoder for easy and rapid setup
- Large graphic display 320x240 pixel.
- RS 232 port for connection to PC.

FIRMWARE

The multilingual testing firmware allows:

- Management and automatic control of machine and test.
- Setup of all test parameters.
- Test data acquisition and processing
- Real time display of: number of cycles, rut depth, temperatures. Real time cycle rate will also be displayed when using a serial connection to PC
- Calibration menu for setting and checking all test data.
- From the control board, it is possible to select parameters, set data acquisition and processing according to EN and BS test procedures, with:
 - Identification data of the sample (slab) under test.
 - Cycle frequency.
 - Number of passes to end the test.
 - Max rut depth to end the test.
 - Sampling frequency of the rut depth.
 - Testing temperature.
 - Sample (slab) thickness.

Power supply: 230V 50-60Hz 1ph 2200W

Power rating of the table: 500W

Dimensions: 1580x650x1790 mm

Weight: 400 kg approx.

ACCESSORIES

- * **B038-09** MOULD with HANDLES size 320x260x180 mm
- * **B038-10** MOULD with HANDLES size 305x305x50 mm
- * **B038-11** MOULD with HANDLES size 305x305x100 mm
- * **B038-12** MOULD no HANDLES size 400x305x50 mm
- * **B038-13** MOULD with HANDLES size 400x305x100 mm
- * **B038-14** MOULD for core sample 200 mm diameter, 50 mm high
- * **B038-18** MOULD with HANDLES size 500x400x180 mm
- * **B038-19** MOULD with HANDLES size 400x305x120 mm
- * **B038-20** MOULD with HANDLES, size 320x260x50 mm
- * **H009-01** PC complete with LCD monitor 22", keyboard, mouse, cables, installation.

Note:

- * These moulds are suitable to be used also with Matest ARC: Asphalt Roller Compactor. Insert plates to reduce the thickness of the mould are available on request.



B038-13

B038-18



B038 with closed doors