

B063-10 PARTICLE CHARGE TESTER

PARTICLE POLARITY OF BITUMEN EMULSIONS

STANDARDS: EN 1430 | ASTM D244 | CNR N. 99

This apparatus is used to identify the particle charge of bitumen emulsions.

The equipment comprises:

- Milliammeter scale up to 10 mA on support base
- Variable resistor
- Two stainless steel electrodes
- Insulating device
- Beaker 250 ml capacity to EN spec.
- Glass rod

Power supply: 250V 1ph 50-60Hz

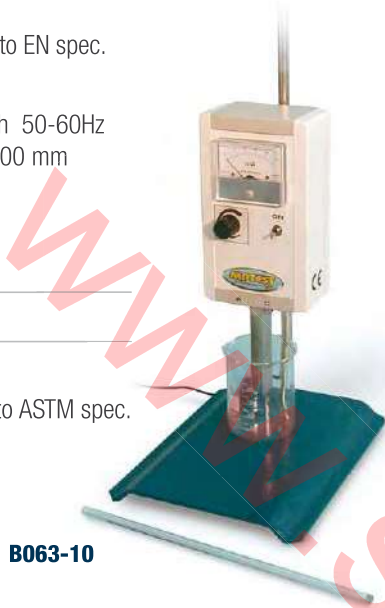
Dimensions: 200x200x600 mm

Weight: 3 kg approx.

ACCESSORY

B063-11

BEAKER 500 ml capacity to ASTM spec.



B063-10

B072-20 WILHELMI SOFTENING POINT APPARATUS

STANDARDS: EN 1871 | DIN 1996-15

Used for determining the softening point of bituminous materials for road construction, according to Wilhelmi method.

The softening point is the temperature where a layer of thermoplastic material has a deformation given by a steel sphere weighting 13.9 g. The apparatus comprises a ring divided in two halves on a metal support frame, glass beaker, steel ball 15 mm diameter.

Weight: 2 kg approx.



B072-20 + B072-02

ACCESSORIES for B072-20

B072-02

THERMOMETER, ASTM 16C, scale +30 °C +200 °C, subd. 0.5 °C.

B073-02

ELECTRIC HEATER WITH MAGNETIC STIRRER, suitable for still water and glycerine tests, with softening point up to 150 °C.

Power supply: 230V 1ph 50-60Hz 700W

Weight: 4 kg approx.

See p. 150

B063 KIT EMULSIFIED ASPHALT DISTILLATION APPARATUS

STANDARDS: EN 1431 | ASTM D 244 | AASHTO T 59 | CNR N° 100

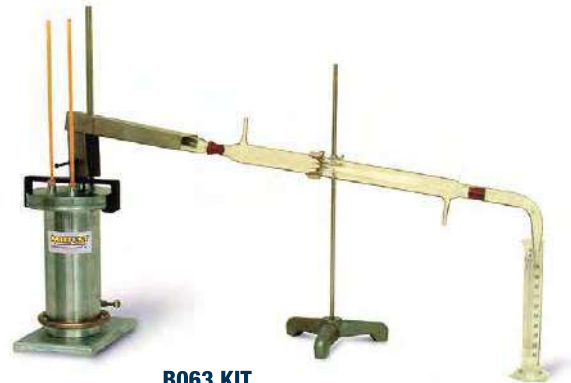
Used for the determination of cut-back asphaltic materials by the distillation test. The set is formed by: aluminium still container, glass connectors including condenser, stands, graduated cylinder, two thermometers ASTM 7C range -2 to +300 °C, gas ring burner with gas stop valve controlled by a flame sensor.

It can be sold on CE markets, but not usable in closed spaces.

Weight: 12 kg approx.

SPARE

B063-01 Thermometer -2 to +300 °C ASTM 7C



B063 KIT

B063-05 STORAGE STABILITY OF ASPHALT EMULSIONS

STANDARD: NF T66-022

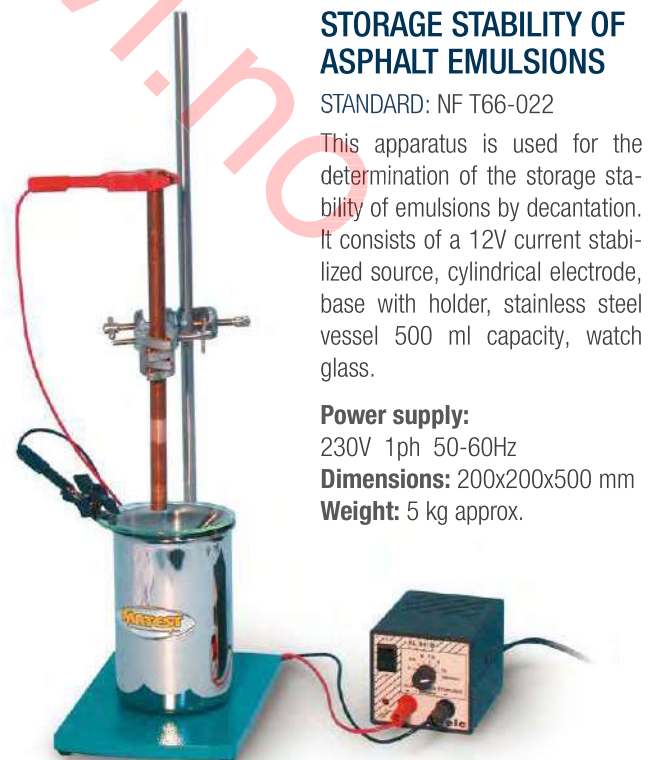
This apparatus is used for the determination of the storage stability of emulsions by decantation. It consists of a 12V current stabilized source, cylindrical electrode, base with holder, stainless steel vessel 500 ml capacity, watch glass.

Power supply:

230V 1ph 50-60Hz

Dimensions: 200x200x500 mm

Weight: 5 kg approx.



B063-05

B054 DUCTILOMETER

STANDARDS: EN 13398, EN 13589 | ASTM D113, D6084 | AASHTO T51

Used to determine the bituminous ductility, that is the distance to which a briquette of molten bitumen can be extended under controlled conditions, before breaking. The Ductilometer basically consists of a moving carriage travelling along guide ways. The carriage is driven by an electrical motor, inside a large tank fitted with digital thermostat, immersion electric heater, cooling coil for cold water circulation and pump unit. Max. traction force: 300 N, accuracy: ± 0.1 N

The ductilometer can accept up to 3 specimens simultaneously. Supplied complete **except** for the briquette mould and base plate that must be ordered separately (see accessories).

Power supply: 230V 1ph 50Hz 750W

Dimensions: 1880x360x680 mm

Weight: 95 kg approx.



B055

B054

MAIN FEATURES

- Works automatically.
- Speed 50 mm/min.
- Max stroke 1500 mm.
- Stainless steel made with fibreglass insulation.
- Digital thermoregulator for a constant water bath temperature ($25\text{ }^{\circ}\text{C} \pm 0.5\text{ }^{\circ}\text{C}$).
- Dual safety thermostat to prevent accidental over-temperature.
- Cyber-plus 8 evolution data acquisition and processing system available in B055-10 and B055-20N models.

ACCESSORIES

B054-01

DUCTILITY BRIQUETTE MOULD - STANDARDS: ASTM, AASHTO, GOST
 Used to prepare the specimen, it is brass made, accurately machined. Supplied without base plate. Weight: 300 g

B054-03

DUCTILITY BRIQUETTE MOULD - STANDARD: EN 13398
 Used to prepare the specimen, it is brass made, accurately machined. Supplied without base plate. Weight: 300 g

B054-04

DUCTILITY BRIQUETTE MOULD - STANDARD: EN 13589
 Used to prepare the specimen, it is brass made, accurately machined. Supplied without base plate. Weight: 300 g

B054-02 BASE PLATE for ductility briquette mould.

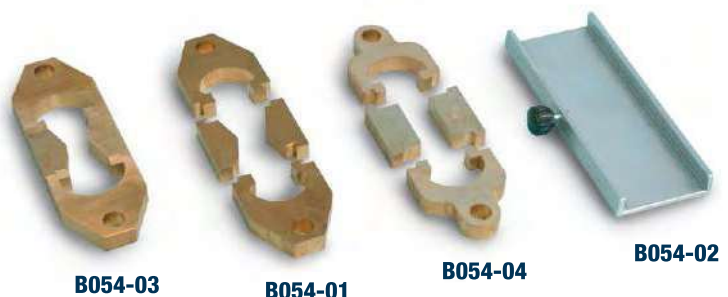
B055

DUCTILOMETER WITH COOLING SYSTEM

Same as for mod. B054 but equipped with incorporated refrigerating unit for tests with water temperature from $+ 5^{\circ}$ to $+ 25\text{ }^{\circ}\text{C}$.

Dimensions: 1880x360x680 mm

Weight: 130 kg approx.



B054-03

B054-01

B054-04

B054-02

B055-10 DUCTILOMETER WITH DATA ACQUISITION HIGH PERFORMANCE

STANDARDS: EN 13398 | EN 13589 | EN 13703 | ASTM D113, D6084 | AASHTO T51 | GOST 11505-75, 33138-2014

Same as mod. B054, but upgraded with:

- Cyber-plus Progress data acquisition and processing system, **colour touch screen display** ¼ VGA, 24 bit resolution. It automatically performs data acquisition and processing. Directly connected to printer (accessory) via USB it prints the test certificate. Equipped with slots for external pendrive or SD card infinite memory support with direct connection to PC. Hardware details: see p. 19, 225
- Software UTM NET to unload and visualize test data to PC.
- One electric load cell 50 N capacity complete with installation and calibration. (Possibility to install later on up to 3 cells directly by the end user). Supplied **without** briquette mould and base (see accessories).



ACCESSORIES

B055-15

LOAD CELL electric, 50 N capacity, complete with installation and calibration (possibility to install up to 3 cells).

B055-16

REFRIGERATING UNIT, incorporated into the machine, for tests with water temperature from +5 °C to +25 °C (not possible to fix on later).

Ductility moulds and base plate:
see p. 144



B055-20N DUCTILOMETER WITH DATA ACQUISITION FOR RESEARCH HIGH PERFORMANCE

STANDARDS: EN 13589, 13703, 13398 | ASTM D113, D6084
AASHTO T51, T300, T301
GOST 11505-75, 33138-2014

Developed and manufactured for ductility tests and for research purposes. Stepper motor providing a variable speed range from 1 to 400 mm/min with digital displacement measuring system.

Up to 3 samples can be tested simultaneously.

One electric high capacity load cell 500 N (possibility to install later on up to 3 cells directly by the end user).

Automatic positioning of start test.

Visualization of the elongation in mm and load/elongation chart.

Max elongation recording before breaking failure.

Absorbed energy elaboration.

Temperature setting and visualization of the test execution with continuous recording during the test.

Test certificate print-out (USB connector or local printer).

Cyber-plus Progress data acquisition and processing system **colour touch screen display** (technical details: p. 19, 225).

Software UTM2 to unload and display test data to PC.

Glass upper cover.

Supplied **without** briquette mould and base (see accessories).

Power supply: 230V 1ph 50-60Hz 1000W

Dimensions: 2140x400x650 mm

Weight: 110 kg approx.

ACCESSORIES

B055-15

LOAD CELL electric, 50 N capacity, complete with installation and calibration, suitable for soft bitumen.

B055-25

LOAD CELL electric, 500 N capacity, complete with installation and calibration (possibility to install up to 3 cells).

B055-26

REFRIGERATING UNIT, incorporated into the machine, for tests with water temperature from +5 °C to +25 °C. (Not possible to fix later on).

C128

LASER PRINTER, bench model, for graphics and certificates with direct connection via USB.

Ductility moulds and base plate:
see p. 144



Detail: 3 load cells 500 N