

Digital Density Balance (semi-automatic)

ASTM D 71, DIN 51757-2, IP 59-A (obs.), IP 59-B (obs.)

Product group(s): Density & Gravity, Fuel

User group(s): Density, Gasoline, Gravity, Kerosene

Scope: The Displacement Method for the determination of the density or relative density of hard pitches and asphalts with softening points above +70°C.

The Balance Method is suitable for determining quickly and accurately the density or relative density of petroleum products, such as gasoline, kerosene and gas oil, particularly when the quantities available for test are small.

Displacement Method:

The sample is suspended from a thin wire and weighed, first in air, then submerged in water at +25.0°C.

The relative density is calculated from these weights.

Balance Method:

To determine the density at test temperature, a balance is measuring the buoyancy of a bob suspended from a thin wire and immersed in a liquid sample at ambient temperature.



Digital Density Balance

to be composed of:

- Digital Density Test Rig
- Serial Printer

Technical Data

<u>Density measuring range:</u>	0.0 to 2.1 g/qcm
<u>Resolution:</u>	0.0001 g/qcm
<u>Balance weighing range:</u>	max. 320 g : 0.001 g
<u>Weighing plate:</u>	135 x 135 mm, stainless steel
<u>Interface:</u>	RS232
<u>Dimensions / Weight:</u>	35 x 37 x 60 cm (W x D x H), 20 kg

Main Unit

26-0019

Digital Density Test Rig

Bitumen: ASTM D 71 (IP 59-B)
Fuel/Oil: DIN 51 757-2 (IP 59-A)

Consisting of:

- 1 digital balance with electronic computation module to convert measured buoyancy to density
- 1 stand with platform for balance
- 1 lift for test cylinder with silicone mat

Supplied with:

- 1 test cylinder (120 ml)
- 1 thermometer (+10 to +30:0.1 °C)
- 1 underfloor hook
- 1 bob (10 ml)
- 1 test weight, 100 g with storage container (for balance control)

Power supply: 110/230 V, 50/60 Hz

26-0020

Digital Density Test Rig

Like 26-0019 but:
Power supply: 115 V, 60 Hz and with US-plug

25-0282



Impact Printer (mono)

for single sheets & continuous paper
to record data like test results, duration of test, etc. (instead of a PC)

Supplied with: 2 data cables (9-pin 25-0304, USB 25-0918), 1 ink ribbon (black)

Technical Data:

Line spacing: 80 characters per line (10 cpi)
Page size : 257 x 364 mm (sheet), 254 x 558.8 mm (roll)
Ports: serial (9-pin), USB (1.1)
Dimensions: 37 x 28 x 16 cm (WxDxH)
Weight: 5 kg
Power supply: 220/240 V, 50/60 Hz

25-0283

Impact Printer

Like 25-0282 but:

Power supply: 110/130 V, 50/60 Hz

Spare Parts

25-0308

Printer Ink Ribbon

25-0417

Thermometer for Density-Applications

Range: +10 to +30 : 0.1 °C

25-0418

Test Cylinder, 120 ml

25-0420

Sinker-Bob with nickel suspension wire (169 mm)

glass-bob, 10 ml, Ø 15 x 80 mm

50-5243

Mat, silicone (120 x 160 mm)

Order Guideline

Minimum equipment: 1x 26-0019, 1x 25-0282
Spares (approx. 1 year): 25-0308, 25-0417
Additional requirements: