

Bendtsen Roughness & Air Permeability Tester

RL-BRAPT-A

The RL-BRAPT-A is used for measuring the air permeability and surface roughness according to Bendtsen method.

To evaluate surface roughness with this machine, the operator places the sample below the measuring head. By pushing the start button, the measuring head lowers onto the sample and gently clamps it. The test starts. As soon as the preset flow rate (e.g. 1,47 ml/min) is stable, the measuring value is displayed. The test time is adjustable from 1-40 seconds. After test performance, the sample is released. The measuring head returns to its initial position and the device is ready for further measurements.

When used for air permeability the operator places the sample below the measuring head. By pushing the start button, the measuring head lowers onto the sample and gently clamps it. Air flows through the sample at a selected pressure (e.g. 1,47 KPa). As soon as the preset flow rate is stable, the measuring value is displayed. The test time is adjustable from 1-40 seconds. Gurley values are calculated according to the standard and are displayed in Gurley seconds by default.

Machine Configuration Options:

Bendtsen Roughness:

1 x Roughness measuring head

Bendtsen/Gurley Porosity:

1 x Porosity measuring head

Bendtsen Roughness-Porosity:

1 x Roughness measuring head and
1 x Porosity measuring head



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FEATURES

- Fully automated measuring cycle
- Measuring range from 25-5000 ml/min (other ranges upon request).
- Up to two measuring heads: roughness top and air permeability
- Electricity: 110-230 V, 50-60 Hz (40W)
- Air: 400-600 kPa
- Dimensions (W x D x H): 27 x 68 x 60 cm
- Net Weight: 1 head: 23kg; 2 head: 28kg
- Gross Weight: 43kg (95lbs)

Applicable Standards

ISO 8791-1, ISO 8791-2, ISO 5636-1, ISO 5636-3, SCAN P21, SCAN P84, IS 9894, DIN53108, BS 4420



SPECIFICATIONS

- Fully automated measuring cycle, sample is not influenced manually.
- Adjustable feet for the equipment leveling.
- Big Color Touch Screen 7"
- Full Statistics, with graphs, average, deviation, min and max value, etc.
- Automated system for aligning measuring and positioning head on sample under constant pressure of 98Kpa. (490 kPa Optional).
- Test Pressures according to standard: 0.74, 1.47, or 2.20 kPa
- Glass measuring surface attached to the equipment.
- Photocell for automatic test when positioning the sample, or manual test.
- RS-232 interface & USB connection for maintenance and printer.

Measuring Ranges:

- 25 - 5.000 ml flow rate
- Pressure difference: $\pm 0.5\%$ of the final value

Measuring Accuracy:

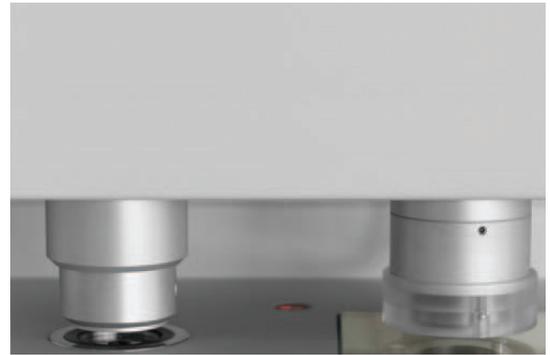
- 25 - 5.000 ml flow rate
- Pressure differential : $\pm 0.005\text{kPa}$ linear
- Flow : $\pm 0.5\%$ of the final value
- Accuracy of test duration: $\pm 0.5\text{s}$

Roughness:

- Measuring land: $\text{Ø}31.5\text{mm}$, $150\mu\text{m}$, 267g
- Test duration, Dwell time: 1-40 seconds (adjustable)

Air Permeability:

- Measuring area : $10 \pm 0.2 \text{ cm}^2$
- Test duration, , Dwell time: 1 -40 seconds (adjustable)
- Display in ml/min or $\mu\text{m}/\text{Pa}*\text{sec}$
- Gurley Value: Seconds



▲ Testing heads for air permeability and roughness with photo detection cell

User Interface

- Touch screen and Auxiliary Button.
- Easy and intuitive operation of the control menu, configurable in different languages.
- Two result tables with a maximum of 10 result types and 20 test results per table.
- Possibility of display a diagram showing different test results.
- Mean value, standard deviation and maximum and minimum values.
- Value in $\mu\text{m}/\text{Pa}*\text{sec}$ shown in statistics.
- Periodic program updating (without additional costs)
- Maintenance Menu, Set-Up and Calibration.

