Bendtsen Roughness & Air Permeability Tester

Code: 11.205.110

For measuring the roughness and the air permeability according to the Bendtsen method, Gurley porosity is calculated from the measured values.

Standards: ISO 5636/3, 8791/2, TAPPI UM535, SCAN P21, P60

Picture shows Bendtsen tester with porosity and surface roughness heads.
Device Description:

This device comes with a built in touch-screen and an industrial computer. All the parts are built into a sturdy aluminum frame. The device is equipped with up to 3 measuring heads for top and bottom roughness measurements as well as for air permeability. Flow rate range is 25 - 5000 ml/sec. Other flow rates ranges upon request.

Test Description:

The sample to be tested is placed in the measuring area. By pushing the start button on the touch screen the measurement cylinders lower onto the sample. The measuring head is set free and actuated by gravity on the sample. A pressure difference is generated between the inner measuring head and the environment. The device detects the air that’s flowing out between the blade of the measuring head and the sample. As soon as the flow is stable the device shows the values in ml/sec on the display. The air permeability head lowers on the surface of the sample as well and locks the measuring area towards the outer air. An air stream through the paper is established and as soon as the flow rate is stable the device shows the values in ml/min and in Gurley seconds (calculated) on the display.

Specifications:

- Fully automated measuring cycle
- Flow rate of 5 – 1000 ml, other or extended flow rates upon request.
- Up to 2 measuring heads: roughness top and air permeability
- Test pressure selectable acc. to standard: 0.74 kPa, 1.47 kPa, 2.20 kPa
- Stabilizing time selectable between: 1 – 40 sec.
- Statistic with graphs, max, min, mean, standard deviation
- Photocell detection of the sample, automatic start of the measurement
- RS232 and USB port, Windows based software, CE mark
- Holder for automatic alignment of the sample made from acrylic glass
- Automatic compensation of atmospheric pressure
- Paper thickness range from 60 g/m² up to 200 g/m² and from 40 µm to 200 µm thickness
Display of the values (Instrument with 2 heads) and calculation of the Gurley values in seconds

Code:

| 11.205.110 | 2 heads: roughness top & air permeability |

Delivery content:
- Instrument with standard flow cell of 5 – 1.000 ml
- Calibration standards (paper) for Porosity and for Roughness measurement (each 20 pcs) for quick verification of the instrument
- Connection cable
- User manual

Optional:
- Selection of another flow sensor 25 – 5.000 ml / 15 – 3.000 ml / 1 – 500 ml

Dimensions:
Width / depth / height: 270 / 680 / 600 mm  
Gross: 450 / 800 / 800 mm

Weight net: 28 kg  
Weight gross: 43 kg

Connections:
Electricity: 110 - 230 V / 50 – 60 Hz AC
Air: 600 kPa