

# PTA-LINE BENDTSEN

Measures the air permeability and surface roughness according to Bendtsen

- 1, 2, or 3 heads available in one device
- Standard measuring range: 25-5,000 ml/min (other measuring ranges also available, e.g. 1-5,000 ml/min)
- Simultaneous measurement with all 3 measuring heads
- Fully automated measuring cycle, sample is not influenced manually



**Applicable standards:**

- ISO 8791-2
- ISO 5636-1
- ISO 5636-3



2 Measuring heads (Porosity and Roughness)



Measuring head for Roughness



Test program

Electricity	110–230 V, 50–60 Hz
Water supply	None
Compressed air	400–600 kPa
Dimensions (WxDxH)	27x68x60 cm
Net weight	1-head 23 kg, 2-head 28 kg, 3-head 34 kg
Gross weight	1-head 38 kg, 2-head 43 kg, 3-head 49 kg

## Description

The sturdy and stable instrument possesses an industrial PC and a touchscreen. It is available with up to 3 heads: top roughness, bottom roughness and air permeability. The large display indicates single values and statistics. The measurement is performed quickly and automatically. The menu navigation is clear.

## Test description

### Surface roughness:

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.

### 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 in ml/min or  $\mu\text{m}/\text{Pa}\cdot\text{sec}$ . 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.

## Specifications

- Measuring ranges:
  - 25-5,000 ml flow rate
  - Pressure difference:  $\pm 0.5\%$  of the final value
- Measuring accuracy:
  - Pressure differential:  $\pm 0.005$  kPa linear
  - Flow:  $\pm 0.5\%$  of the final value
  - Accuracy of test duration:  $\pm 0.5$  s
- Flow sensors (optionally):
  - 15-3,000 ml/min
  - 5-1,000 ml/min
  - 1-5,000 ml/min
- Air permeability:
  - Measuring area:  $10 \pm 0.2$  cm<sup>2</sup>
  - Test duration: 1-40 seconds (adjustable)
  - Display in ml/min or  $\mu\text{m}/\text{Pa}\cdot\text{sec}$
- Roughness:
  - Measuring land:  $\varnothing 31.5$  mm, 150  $\mu\text{m}$ , 267 g
  - Test duration: 1-40 seconds (adjustable)
- Touchscreen for easy handling
- Parallel printer interface
- Serial data interface (RS 232)
- Compatible to PaperLIMS and MiniStat
- Compatible to PTA-Line