

## No. 2040-H

### Oken type smoothness and air-permeability tester (water column type)

This machine has its characteristic in using a 500 mm water column air manometer to measure airflow between the surface of a specimen and the standard surface, with certain conditions, while Bekk type smoothness tester depends on the measurement of time that is needed to inflow a certain amount of air.

The standard surface is constituted of multiple concentric rings, and the air of 500 mm water column-adjusted low pressure is let to flow between the standard surface and the specimen for measurement. On the way of the air passage, is provided a capillary orifice to convert airflow into pressure for display. This testing method consumes little time in measurement, so it is suitable for site management. The standard type measures smoothness and air permeability. The tester for smoothness or air permeability only is available.

#### <Features>

1. Ease of maintenance for the specimen measurement section: it is easy to inspect and replace the measurement head and the specimen-pressing plate.
2. The air pressure-adjusting water column (manometer) is made of stainless steel to prevent corrosion and rusting, considering long stability.
3. The dimensions of an orifice are determined through measurement of airflow at the air pressure medium value. Use of this method allows KRK to produce the testers of almost no inter-machine error in smoothness and in air permeability.



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Median	Measurement range	Maximum scale	Measurement specimens
100	5 to 3000 seconds	5000 seconds	Newspaper, gravure and wood-free paper
500	20 to 10,000 seconds	30,000 seconds	Wood-free paper, gravure and coated paper
1000	50 to 30,000 seconds	50,000 seconds	Coated paper and art paper
2000	100 to 50,000 seconds	100,000 seconds	Coated paper and art paper

According to the kind of your specimen, select a relevant range from the above table. However, the median of 2000 seconds is for air permeability only. With this machine, it is possible to freely combine different degrees of smoothness and air permeability.

**Measurement area for smoothness:** 8.08 cm<sup>2</sup>

**Measurement load for smoothness:** 8.08 kg

**Total length of a measurement ring:** 733 mm

**Measurement area for air-permeability:** 645.16 mm<sup>2</sup> (1.00 in<sup>2</sup>)

**Measurement range (change of nozzles)**

**Median of smoothness:** 100, 500, 1000 seconds

**Median of air permeability:** 100, 500, 1000, 2000 seconds

**Referential standard:** J. TAPPI No.5

**Air source:** 0.5MPa

**Outer dimensions:** 280×410×790 mm

**Instrument weight:** 43 kg