

## AIR PERMEABILITY TESTER

# AIR TRONIC



Air-Tronic is an electronic instrument to determine the air permeability (meant as speed of the air flow that passes vertically to the sample under preset and known testing conditions) of woven, knitted and non-woven fabrics, industrial fabrics for technical use, artificial leather, felt, velvet and paper.

The air permeability value is expressed in mm/sec. and, thanks to the different testing template areas supplied with the instrument, the air permeability range is extremely wide and goes from a minimum of 1.4 mm/sec up to a maximum of 8056 mm/sec\*.

The air permeability value can be also expressed in m/sec. and l/minutes.

\* model 3240C the air permeability range is from a minimum of 180 mm/sec up to a maximum of 55555 mm/sec.

Mesdan code	Depressure [10 Pa = 1 mm]		Air flow l/h (min-max)	Mass meter l/h (min-max)	Test Area standard cm <sup>2</sup>	Test Area optional cm <sup>2</sup>
	Pa	mm H <sub>2</sub> O				
3240A	0-900	90	50-5800	10-100	2-5-10-20-50	100
3240B	0-2500	200	50-5800	10-100	2-5-10-20-50	38-100
3240C	0-2500	200	6500-100000	0-900	5-20-25-50	38-100

**Remark:** special enhanced SILENT models available (approx. 20-30 dB level reduction), **code 3240D** (instead of **code 3240A**) and **code 3240E** (instead of **code 3240B**).



COMPANY WITH  
MANAGEMENT SYSTEM  
CERTIFIED BY DNV  
= ISO 9001 =  
= ISO 14001 =

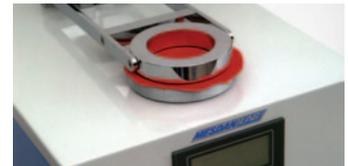
# AIR TRONIC

## Description / Testing procedure

The instrument is operated through a control panel that allows the operator to set the following test parameters:

- Testing area: the testing area value must be inserted, expressed in cm<sup>2</sup>.
- Pressure drop: the pressure drop must be inserted, expressed in Pascal (adjustable continuously from 0 Pa to the max value 900Pa).
- Air permeability measuring unit: select the desired measuring unit (mm/sec., m/sec., l/min.).
- Measuring volume: either 10 litres or 100 litres must be selected.

When a test is finished, by pressing a special key a test report with all test data can be printed (on the printer **code 3240.2** that is supplied as optional).



### Testing guidelines

Instrument	Testing area	Measuring range	Suggestions
3240A - 3240B	2 cm <sup>2</sup>	from 69.4 to 8056 mm/s	very low density knitted fabrics
	5 cm <sup>2</sup>	from 27.8 to 3222 mm/s	low density knitted fabrics
	10 cm <sup>2</sup>	from 13.9 to 1611 mm/s	high density knitted fabrics
	20 cm <sup>2</sup>	from 6.9 to 806 mm/s	woven fabrics
	50 cm <sup>2</sup>	from 2.8 to 322 mm/s	industrial fabrics and heavy velvets
3240C	100 cm <sup>2</sup>	from 1.4 to 161 mm/s	very low air permeability value
	5 cm <sup>2</sup>	from 3611 to 55555 mm/s	low density knitted fabrics
	20 cm <sup>2</sup>	from 903 to 13889 mm/s	woven fabrics
	25 cm <sup>2</sup>	from 722 to 11111 mm/s	very high density knitted fabrics
	50 cm <sup>2</sup>	from 361 to 5555 mm/s	industrial fabrics and heavy velvets
	100 cm <sup>2</sup>	from 180 to 2778 mm/s	very low air permeability value

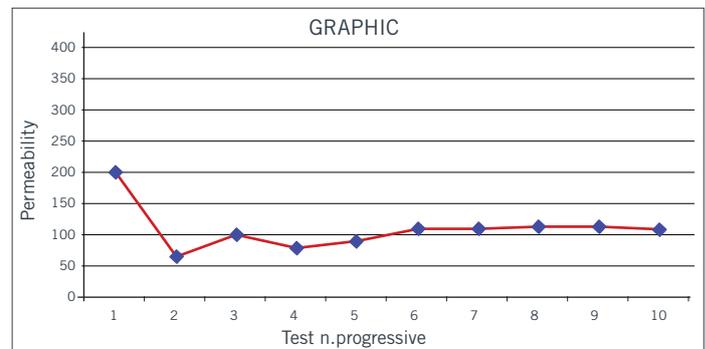
## Included accessories

- Calibration template, to check calibration.
- Reduction area templates, to carry out tests on samples of different permeability.

### Example of printed report

AIR PERMEABILITY REPORT		TESTS RESULTS			
Date [ggmmaa]		Test n.progressive	Test results	S= 50Cm <sup>2</sup>	
Time [hhmm]		1	200	sec.	61,63
Stock Nr.		2	65	lt/min	9,7355184164
Test Nr.		3	100	lt/min.m <sup>2</sup>	973,5518416356
Material		4	80	lt/sec.m <sup>2</sup>	16,2258640273
Operator		5	90	mm/sec	16,2258640273
Test result	32,45173	6	110	m/sec	0,016225864
Time sec.	61,63	7	112		
		8	114		
		9	115		
		10	111		
		AVERAGE	109,7		

### Example of printed report graphic



### OPTIONAL / ACCESSORIES

Calibration report of control template	<b>code 3240.CC1</b>
Template Area adapter for 38 cm <sup>2</sup> ASTM Standard (not available for 3240A)	<b>code 3240.8</b>
Special seal fixing ring for 50 cm <sup>2</sup> samples: recommended to avoid air leaks when carrying out tests on industrial fabrics and heavy velvets	<b>code 3240.6</b>
Special seal fixing ring for 100 cm <sup>2</sup> samples: recommended to avoid air leaks when carrying out tests on synthetic leather, microfibres fabric.	<b>code 3240.10</b>
Micro printer: for the printing of test results	<b>code 3240.2</b>
Data management Software	<b>code 3240 A.12</b>
Connection cable	<b>code 2510.836</b>
Control Lab, personal computer <b>code 237.92</b> , monitor <b>code 250.300</b> ink jet printer <b>code 250.4</b> , uninterruptible power source UPS <b>code 250.306</b> , or as alternative choice laptop <b>code 2532.150</b> ink jet printer <b>code 250.4</b> ; UPS <b>code 250.306</b>	

Photograph and description of the present leaflet have to be considered as purely indicative and not binding  
Rel. En 2015-11

### GENERAL CHARACTERISTICS

- Measure units: mm/s, m/s, l/min
- Pressure drop: continuous set
- Standard cup configuration: test area 100 cm<sup>2</sup>
- Test area standard for **code3240A** and **code 3240B**: 2 – 5 – 10 – 20 – 50 cm<sup>2</sup>
- Test area standard for **code3240C**: 5 – 20 – 25 – 50 cm<sup>2</sup>

### REFERENCE STANDARDS

- **code3240A**: UNI EN ISO 9237, UNI EN ISO 7231, BS 5636, DIN 53887, AFNOR G07-111, JIS L 1096 A, EDANA 140.1, TAPPI T251
- **code3240B** - **code3240C**: UNI EN ISO 9237, ASTM D737, UNI EN ISO 7231, ASTM D3574, ASTM D726, BS 5636, DIN 53887, AFNOR G07-111, JIS L 1096 A

### DIMENSIONS / POWER SUPPLY

Weight: 30 Kg  
Dimensions: (L) 390 x (W) 450 x (H) 540 mm.  
Power supply: 230 Vac, 50/60Hz single-phase