AIR PERMEABILITY TESTER

AIR TRONIC PLUS

AIR TRONIC PLUS is a fast and silent electronic instrument to determine the air permeability (meant as speed of the air flow vertically passing through 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. It can calculate also the average pore size of woven fabrics, a unique feature important for the filtration industry, their evaluation and classification.
AIR TRONIC PLUS is equipped with wheels, as well as a user-friendly touch screen display, a built-in suction unit with cooling system (granting a noise level reduction of about 20-30 dB, in comparison with the "standard models"), and a digital Flux Meter (to perform fast tests).
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.

Code	Depressure [10 Pa = 1 mm H_2O]		Air flow	Flux meter	Standard Test Area	Optional Test Area
	Pa	mm H_2O	l/h (min-max)	cm^2	cm^2	cm^2
3240D	0-900	0-90	50-5800	Digital	2-5-10-20-50-100	38*
3240E	0-2500	0-250	50-5800	Digital	2-5-10-20-50-100	38
3240C	0-2500	0-250	6500-100000	Analogic	5-20-25-50-100	38

* Conforms to ASTM D737 and JIS L1096-A Standards, which require 2500 Pa capacity range.

Remarks: bench models are also available on demand, i.e. **Code 3240A** (instead of **Code 3240D**), and **Code 3240B** (instead of **Code 3240E**).

** The air permeability range of model 3240C (special high capacity model available on demand), goes from a minimum of 180 mm/sec up to a maximum of 55555 mm/sec.

MESDAN LAB

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

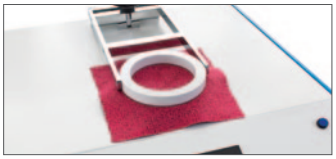
AIR TRONIC PLUS CODE 3240C, 3240D, 3240E

Description / Testing procedure

The instrument is operated through a user-friendly touch screen display, that allows the operator to set and enter the following test parameters:

- Testing area (expressed in cm²).
- Pressure drop, expressed in Pascal, continuously adjustable (from 0 Pa to the max. value of 900 Pa for model 3240D, and up to the max. value of 2500 Pa for models 3240C and 3240E).
- Air permeability measuring unit (expressed in mm/sec., m/sec., l/min.).
- Measuring volume (either 10 litres or 100 litres must be selected).

At the end of the testing procedure, a test report can be printed by means of the built-in **Micro printer** (Code 3240.2), available as optional.



Testing guidelines

Instrument	Testing area	Measuring range	Suggestions
3240D - 3240E	2 cm²	from 69.4 to 8056 mm/s	very low density knitted fabrics
	5 cm²	from 27.8 to 3222 mm/s	low density knitted fabrics
	10 cm²	from 13.9 to 1611 mm/s	high density knitted fabrics
	20 cm²	from 6.9 to 806 mm/s	woven fabrics
	38 cm²	from 3.7 to 424 mm/s	woven and knitted fabrics
	50 cm²	from 2.8 to 322 mm/s	industrial fabrics and heavy velvets
	100 cm²	from 1.4 to 161 mm/s	very low air permeability value
3240C	5 cm²	from 3611 to 55555 mm/s	low density knitted fabrics
	20 cm²	from 903 to 13889 mm/s	woven fabrics
	25 cm²	from 722 to 11111 mm/s	very high density knitted fabrics
	38 cm²	from 475 to 7310 mm/s	industrial fabrics and heavy velvets
	50 cm²	from 361 to 5555 mm/s	industrial fabrics and heavy velvets
	100 cm²	from 180 to 2778 mm/s	very low air permeability value

Testing areas listed above - except for the 38 cm² area - are included

Example of test report

MESDAN SPA

Raffa di Puegnago (BS)
ITALY

TEST REPORT

Date:	08/06/2017
Operator:	Lab
Material:	Poly
Supplier:	Example 1
Code No.:	12345
Sample No.:	5
Notes:	Example 2

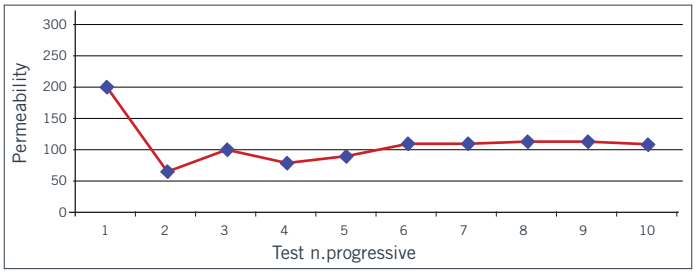
T.1	12,7	Lt/min
T.2	12,8	Lt/min
T.3	13	Lt/min
T.4	12,7	Lt/min
T.5	12,9	Lt/min
T.6	12,7	Lt/min
T.7	12,9	Lt/min
T.8	12,8	Lt/min
T.9	12,9	Lt/min
T.10	12,7	Lt/min

Signature: .....

Included accessories

- **Calibration template**, to check calibration.
- **Reduction area templates**, to carry out tests on samples of different permeability.
- **Digital flux meter**, Code 3240.20, for fast testing (only for 3240D and 3240E).

Example of printed report (graphic)



OPTIONAL ACCESSORIES

Calibration report of control template	code	3240.CC2
Template Area adapter for 38 cm² ASTM Standard	code	3240.8
Seal Fixing Ring 50 cm² area, for sample thickness up to 10 mm, recommended to avoid air leaks when carrying out tests on industrial fabrics and havy velvets	code	3240.6
Seal Fixing Ring 100 cm² area, for sample thickness up to 10 mm, recommended to avoid air leaks when carrying out tests on synthetic leather and microfibres fabric	code	3240.10
Seal Fixing Ring 100 cm² area, for sample thickness over 10 mm and up to 20 mm, recommended to avoid air leaks while testing high thickness samples	code	3240.26
Seal Fixing Ring 50 cm² area, for sample thickness over 10 mm and up to 20 mm, recommended to avoid air leaks while testing high thickness samples	code	3240.28
Built-in **Micro printer** (to print test results)	code	3240.2
Data management Software	code	3240A.12
PLC Software Option for average pore size calculation	code	3240.30
Automatic pressure drop regulation (for self-regulation at set point - except for 3240C)	code	3240.22

CONTROL LAB: Laptop (Code 2532.150), or - as alternative - **Personal Computer** (Code 237.92); **Monitor** (Code 250.300); **Ink Jet Printer** (Code 250.4); **UPS** - Uninterruptible Power Source (Code 2341.900)

GENERAL CHARACTERISTICS

- Measure units: mm/sec, m/sec, l/min
- Pressure drop: continuous set
- Standard cup configuration: test area 100 cm²
- Standard test area for Code 3240C: 5 - 20 - 25 - 50 - 100 cm²
- Standard test area for Code 3240D and Code 3240E: 2 - 5 - 10 - 20 - 50 - 100 cm²

REFERENCE STANDARDS

- **Code 3240D**: UNI EN ISO 9237
- **Code 3240C** and **Code 3240E**: UNI EN ISO 9237, UNI EN ISO 9073-15, UNI EN ISO 7231, ASTM D737, ASTM D3574, JIS L 1096 meth A, NWSP 070.1 RO (15)

DIMENSIONS / POWER SUPPLY

Weight: 76 kg
Dimensions: (L) 620 x (W) 620 x (H) 1170 mm
Power supply: 230 Vac, 50/60Hz single-phase

Mesdan

MESDAN S.p.A. - Via Masserino, 6
25080 Puegnago del Garda (BS) - Italy
Phone +39 0365 653142
Fax +39 0365 651011
sales@mesdan.it - **www.mesdan.com**