Oscilink V
All-in-one Spiro-Impedancemeter

The first compact size spirometer measuring total respiratory impedance :
- *Global lung-function testing with only one transportable system.*
- *Fully computerised operation through a friendly Windows™ software.*

Slow and forced (flow/volume loops) ventilation measurement coupled with the most complete method of impedance measurement :
- *Assessment of airways resistance with excellent repeatability.*
- *Easily outperforms bodyboxes Raw and flow interrupters Rint !*
- *Indicates if obstruction is central or peripheral.*
- *Computes also respiratory system reactance (inertance & compliance).*
- *Runs quickly (Raw measurement takes 17 seconds) and <u>without patient's co-operation</u>.*
- *Condition of patient does not degrade during repeated (response vs. dose) tests.*

Combination of an open circuit spirometer with a multifrequency forced oscillations total respiratory impedancemeter : Measures slow and forced (flow vs. volume loops) vital capacity as well as resistance, inertance, compliance, resonant frequency... of the thoraco-pulmonary ensemble. Uses pseudo-random noise (PRN) method. Impedance measurement is performed whilst patient quietly ventilates at rest. No further patient co-operation is required. Measurement of resistance at several frequencies helps to localize obstruction (central, peripheral or total).

Quality of measurement without compromise : Digitally linearized triple screen Lilly (Hans Rudolph) pneumotachometer with optional temperature control - High sensitivity pressure measurement subsystem uses best technologies including variable magnetic reluctance transducers (Validyne) and digital signal processing electronics. Proprietary patient circuit is fully removeable for easy cleaning and accepts both single use cardboard mouthpieces and bacterial filters.
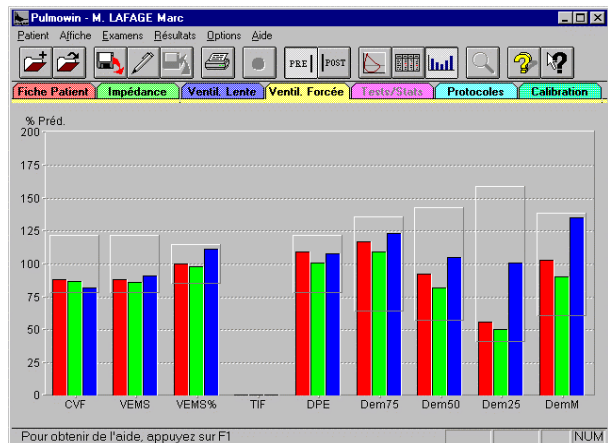
Runs on any Windows™ based computer. Conects to serial port or USB. Upgradeable software enables easy access to the different functions through either mouseclics or keystrokes. Tests can be edited on any quality color printer.
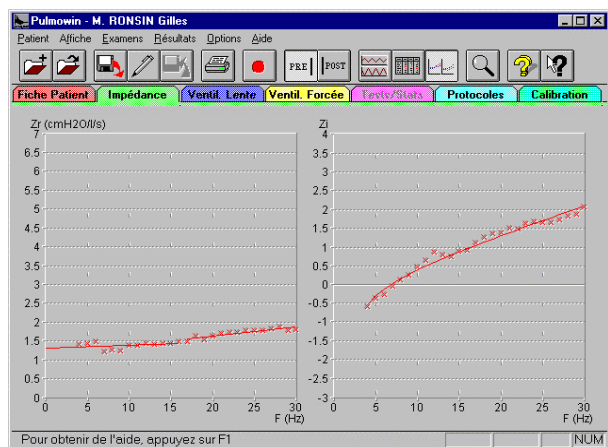
Screen sample : Impedance graph
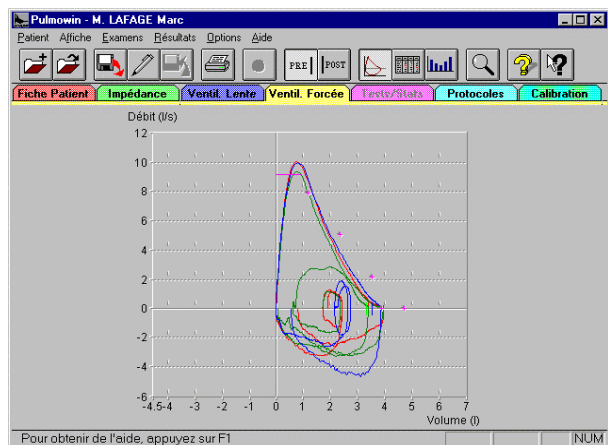
Screen sample : Flow/Volume loops

Screen sample : PulmoChart™ trend graph

System description :

One piece device integrating an electronic oscillation generator with loudspeaker, a flow/pressure acquisition subsystem with grid pneumotachometer and a computer interface. This ensemble is held in position by a height adjustable stand in order to perfectly match the patient's morphology. Supply : 110 - 240 Volts AC.

The link with the computer being a simple serial cable (no sloted card required), notebook computers can be used. A serial to USB converter is included.

Operating software (main functions) :

Calibration with real time display of sensor signals.
Patient data and test conditions keyboard input.
Slow and forced (flow-volume loops) ventilation measurement.
Total respiratory impedance measurement by the pseudo-random noise forced oscillations method.
Display of curves with zoom feature and tests superimposition.
Comparison with predicted values - Pre/Post bronchodilator mode.
Results can be displayed as numbers, or graphically (trend charts).
Patients and tests data base management on the computer hard disk.
Tests printouts are user configurable.
Complies with ATS recommandations.
Runs on Windows 3.1, 3.11, 95, 98, 2000, ME or XP

Options :

Powered vertically adjustable stand.
Pressure calibration kit.
Flow calibration syringe.
Pneumotach heating.
Automatic nebulizer.
Broncho-motricity protocols software.

Included : Upgradable software with operation manual, 400 single-use cardboard mouthpieces, 20 bacterial filters, 2 nose-clips, one dose of cleaning agent.

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Engineered and built by :

DATALINK
électronique médicale depuis 1985

Groupe MSR

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