SPIRO AIR®

DRY ROLLING SEAL SPIROMETER

The gold-standard measurement

- A fast, accurate “One-stop” test center
- Software guided clinical excellence
- Expansive capability (DLCO, MIP/MEP, ...)
- More than 10 options
- Precision engineering of the highest quality
- Low cost of operation and maintenance
- No high-cost proprietary disposables
Stainless steel rolling seal, well known as the best technology

- Functional Residual Capacity (FRC) by closed circuit helium dilution method with oxygen compensation and CO2 absorption.
- DLCO He or DLCO CH4
- DLCO NO
- MIP/MEP & SNIP
- NEP
- RINT
- Automatic nebulizer (PROVO II)

Technical advantages

- Automated switch in to closed circuit
- Low maintenance
- Rugged construction
- Built to exacting construction methods
- Totally linear over full volume and flow range
- Traceable to world standards
with NEP, the pulmonary blood flow and its ability to recruit from the lung is increased. This measurement can be performed in conjunction with the Jones Meade method. Using a bag collection system, the subject is asked to perform a single breath using the helium trace gas He.

**Intra Breath diffusion**

The sample is taken during a slow and constant exhalation in the range of 200–500 ml/sec. Applying linear regressions to the data array of the expiratory gas, the alveolar concentrations are calculated. This method requires no breath holding, it will greatly benefit some subject groups.

**Steady State diffusion Tlco ss NEW & EXCLUSIVE**

Medi-soft has taken a new look at this method, using fast gas technology and replacing the older bulky instrumentation this is a "NEW" method for a new age of diffusion measurement. Requiring minimal subject effort, this method is especially helpful for obtaining measurements with children and reluctant subjects. Performed at a steady state breathing condition, the measurement is valid as soon as the subject ventilation is uniform and stabilized.

**NEP (OPTION) EXCLUSIVE**

A new and very sensitive test that is specific and reproducible for determining the degree of obstructive lung disease. The test applies a negative pressure to the mouthpiece during the expiratory phase, this permits the comparison of the flow volume loop with the tidal efforts when reviewed as a flow volume loop display.

**RINT (OPTION)**

Measurement of the total pulmonary resistance by the method of airflow interruption (during 80 to 120 ms) at each respiratory cycle.

- Visualization of the mouth pressure in real time.
- Choice between 3 mouth pressure calculation methods.
- Averaging of the value with rejection by "Gauss’s curve" method.
- Automatic functions identical to the spirometry ones for test and methods.

**VENTILATION MECHANICS (OPTION)**

- IMP - MEP : Maximum Inspiratory and Expiratory Pressure.
- SNIP : measurement of the maximal nasal inspiratory pressure.

**FENO (OPTION)**

External module for the measurement of exhaled endogenous NO by the off-line method

**PROVO II (OPTION)**

Equipment for fully automated bronchochallenge tests with automated nebulizer. This option provides full control of products and doses used and of test performing criteria for bronchochallenge testing.
FRC He measurement by the dilution method

DLCO He measurement by the single breath method

DLCO NO measurement

DLCO CH4 measurement by the single breath method

DLCO CH4 measurement by the simple expiration method

Steady state DLCO measurement

Forced spirometry measurement with incentive screen

Maximum Expiratory and Inspiratory pressures

Effect / Dose curve function (challenge test)

Historic graphic display function
EXPAIR
The most Intuitive, userfriendly and complete basic version
• A sophisticated and powerful data-base function and electronic storage function
• Trends Report (Historic function)
• Interpretation function
• Comment function
• Off Line input and on line data transfer
• Report designer
• Predicted value editor
• Choice of languages
• User defined calculated parameters
• Bronchial test generation
• Blood gases with blood chemistry analysis
• Measurement sequencing configuration
• Choice of units
• Measurement sequencing configuration
• Full calculation function : display of calculation points with manual correction capability
• Technical toolbox to enable diagnostic function and full program control
• Inbuilt quality control with calibration
• Conform to electrical req. IEC60601/1 and CE certified

The MediSoft factory is a state of the art modern facility with clinical research, precision engineering and computer design departments.