

SuperSpiro

The complete solution to
respiratory diagnostics

Micro
Medical



With research grade gold standard transducer

Complete respiratory diagnostics

Developed for the professional, SuperSpiro is a new self contained, respiratory diagnostic system. Full spirometry, configurable Bronchial Challenge testing and Airways Resistance (Rint, option) are offered. These and many other advanced features are easily accessed using the unique high-resolution colour screen with its array of touch-screen icons and alpha numeric keyboard.

This next generation Spirometer employs Micro Medicals acclaimed Gold Standard Digital Volume Transducer, which is especially suited to measuring very low flow rates in patients with COPD.

The SuperSpiro is fully compatible via its serial and USB ports to Micro Medicals renowned Spida 5 and SpidaXpert PC software packages.

With its extensive array of features the SuperSpiro is clearly the most powerful yet user-friendly Spirometry system available today.



True colour 1/4 VGA touch-screen

High speed and high resolution printer



SuperSpiro Cat. No. SU6000

Features

- True colour 1/4 VGA screen
- Easy navigation with intuitive touch-screen and keypad
- Comprehensive Spirometry with 50 indices (33 forced (FVC) and 17 slow (SVC) test parameters)
- Fully configurable Bronchial Challenge testing
- Optional Airway Resistance module
- 32Mbyte memory (2500 patient test sessions)
- Child incentive device "Milkshake kid"
- Text quality control messages
- High speed and high resolution built-in printer



A simple test to measure airway resistance

Available for SuperSpiro is the optional MicroRint module for the easy measurement of airway resistance.

Micro Medical's unique design has taken a hither to specialised measurement out of the pulmonary function laboratory and into the clinic or home.

MicroRint enables airway resistance to be measured with the same ease as peak flow but without effort or technique from the patient. The subject simply breathes passively through a mouthpiece or facemask. The result is automatically computed and displayed against predicted normal values. The procedure, that can be performed on neonates to adults, takes only a few minutes.

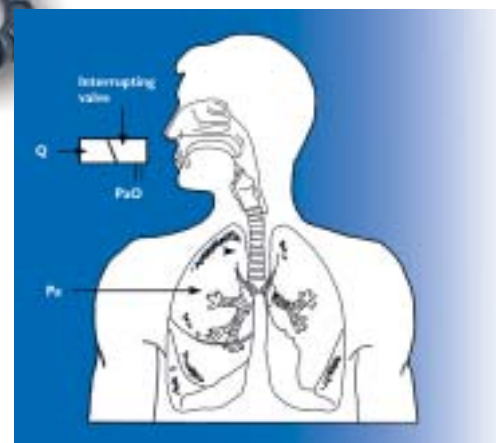
Available as an option for the MicroRint module is Rida, a comprehensive database and analysis software package.

In this method airway resistance is determined by a momentary interruption to flow (Q) in the airways. At this point alveolar pressure (P_a) equilibrates with the pressure in the airways and the mouth (P_{aO}) and airway resistance ($kPa/1/s$) is calculated from P_{aO}/Q (pressure/flow).

Results using MicroRint correlate well with other airway resistance methods⁷ and with other measurements of lung function such as $FEV_{1.8}$.

MicroRint Module Cat. No. MRT6000

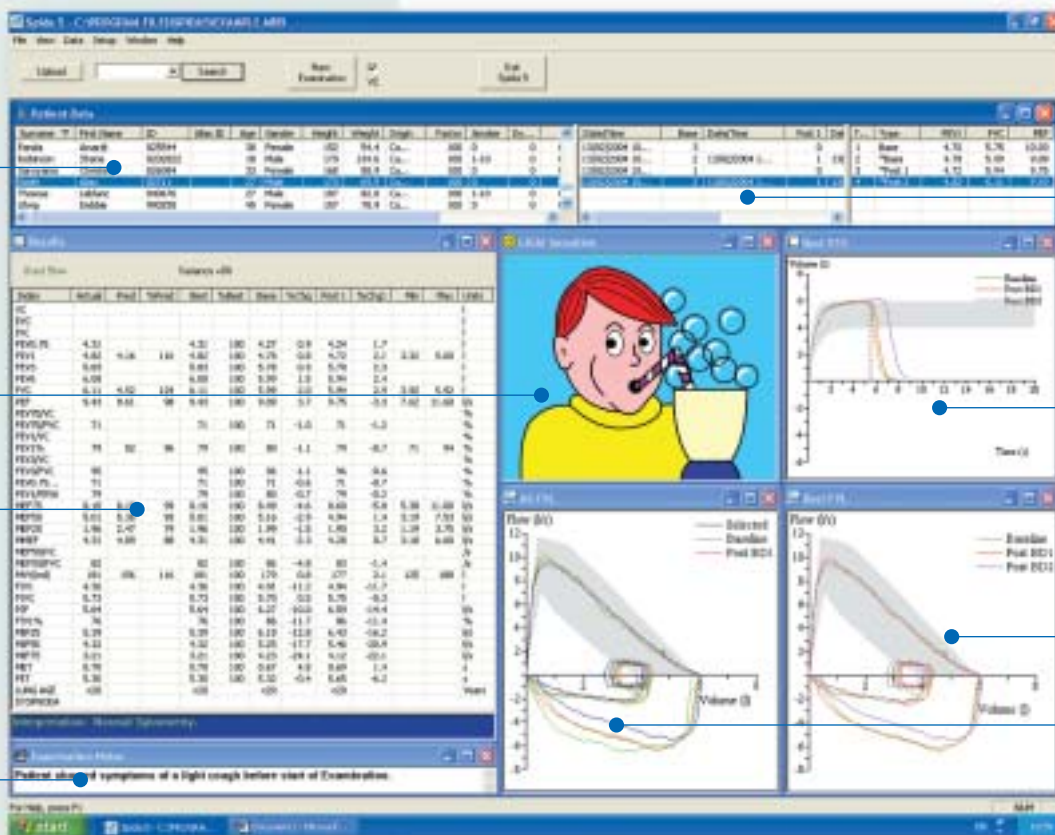
- Rechargeable battery or mains usage
- Bacteriological viral filters to eliminate cross infection fears
- Predicted values with pre-and post-bronchodilator analysis
- Configurable measurement methodology
- 2500+ test memory with results printout direct to Hewlett Packard printers – compatible models specified by Micro Medical
- Optional Rida PC software for pressure waveform and results display.



Spida5/SpidaXpert

Advanced, user-friendly
Spirometry PC software

Micro
Medical



Fully searchable
Patient Database

Previous tests

Animated child
incentive window

Best volume
time curve

Results analysis

Best flow
volume loop

All flow
volume loops

Amendable notes

Available as an option for SuperSpiro is Spida 5
an advanced yet user-friendly PC based software
package.

An enhancement option for Spida 5 is SpidaXpert
an advanced spirometry interpretation and
diagnostic module.

PC System requirements

- Pentium processor or higher
- 32 MB RAM
- 4 MB hard disc space
- One free USB or serial port
- Microsoft® Internet Explorer version 4.01 or above

SuperSpiro Software (Spida 5/SpidaXpert) is compatible with
Microsoft Windows 95, 98, 2000, ME, XP and NT providing the PC.
System requirements are adhered to.

Features

- Multi-window layout is extremely easy and fast to use
- Animated child incentive displays
- Real-time Flow/Volume and Volume/Time traces
- Open and closed Flow/Volume loop test technique is possible
- Overlaying of previous test curves for comparison
- Long term trending facility
- Lung age calculation and textual interpretation
- Powerful search capability
- Up to 50 spirometry parameters can be measured, (33 Forced (FVC) 17 Slow (SVC))
- Can be easily linked to other patient journal or GP administration systems, occupational health systems or other medical databases
- Configurable printout format
- Optional SpidaXpert Interpretation and diagnostics module.



Specifications

Spirometry

Measurements: VC, FEV_{0.75}, FEV₁, FEV₃, FEV₆, FVC, PEF, FEV_{0.75}/VC, FEV_{0.75}/FVC, FEV₁/VC, FEV₁/FVC, FEV₃/VC, FEV₃/FVC, FEV_{0.75}/FEV₆, FEV₁/FEV₆, MEF75, MEF50, MEF25, MEF25-75, FEF50/VC, FEF50/FVC, MVV_{pred}, FET, MET, IC, FIV₁, FIVC, PIF, FIV₁/FIVC, FIF25, FIF50, FIF75, FIF50/MEF50, V_F, ERV, IRV, EVC, IC, ERV, FRC, TLC, FRC/TLC, Ti, Ti/Ttot, VE, IVC, TV, IRV, RV, RV/TLC, FR, Te, TV/Ti [all expiratory measurements with baseline, post bronchodilator 1 and 2, % predicted, % change and normal range]

Tests per subject: VC-unlimited (best reported) FVC-unlimited (best 3 from baseline, post 1 and post 2 tests)

Predicted Values: Various – depends upon national preference (Including NHANES III)

Transducer: Micro Medical Gold Standard Bi-Directional Digital Volume or optional MicroRint module Cat. No. MRT6000

Resolution: 10ml volume 0.03l/s flow

Accuracy: +/-3%. To ATS recommendations – Standardisation of spirometry 1994 update for flows and volumes

General

Storage : 2500 patients' tests including Flow/Volume loops and Volume/Time curves

Printer Output: Internal high speed 832 dot thermal printer, 20 mm/sec print speed. Serial and USB output for all PLC3 compatible Hewlett Packard printers e.g. Deskjet 420, 695, 340, 880c and 895Cxi

Display: 1/4 VGA Colour Touch Screen (320 x 240) pixels

Power Supply: 100–240V, 0.3A, 47–63Hz. Output 9V DC 0.8A

Battery Pack: Rechargeable NiMH 7.2V

Dimensions: 150 x 251 x 40 mm. Transducer 50 x 60 x 90mm

Weight: Unit weight 0.75kg. Packed weight 2.55kg

Temperature: 0° to +40° C

Operating

Humidity: 30% to 90% RH

Storage Temperature: 0° to +70° C

Storage Humidity: 10% to 90% RH

The SuperSpiro (Cat. No. SU6000) is part of an extensive range of respiratory diagnostic equipment manufactured by Micro Medical Ltd.

Micro Medical Ltd pursues a policy of continuing improvement in design, production and performance of its products. The right is therefore reserved to vary details at any time and without notice.

Micro Medical Limited

PO BOX 6, Rochester,

Kent, ME1 2AZ, UK

Telephone 01634 893500

Fax 01634 893600

International +44 1634 893500

Email sales@micromedical.co.uk

www.micromedical.co.uk



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Micro Medical (Deutschland) GmbH

Kieler StraBe 675,
22527 Hamburg, Germany
Tel +49 (0) 405 770 970
Fax +49 (0) 405 770 9717
Email: info@micro-medical.de
www.micro-medical.de