

Micro

SuperSpiro

Medical

The complete solution to
respiratory diagnostics



Focus on the Future

Medical

Complete respiratory
diagnostics

Developed for the professional, SuperSpiro is a 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 it's array of touch-screen icons and keyboard.

This next generation Spirometer employs Micro Medical's 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 Medical's renowned Spida 5 and SpidaXpert PC software packages.

With it's 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

GOLD STANDARD

Setting new standards in Spirometry

The Gold Standard transducer from Micro Medical gives you the most precise volume and flow measurements for your Asthma and COPD patients.

Especially effective at low flows, it complies with all current ATS and other recognised international standards for accuracy. This means that Micro Medical's world leading spirometers are the definitive benchmark for accurate respiratory measurement.

Digital Volume Transducer Spirometers are NOT ALL THE SAME.



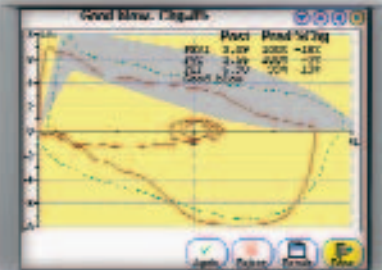
Keyboard touch-screen data entry

Additional navigation keyboard

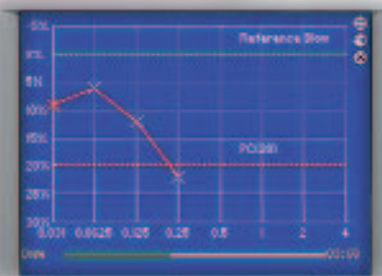
- Textual interpretation and 'Lung Age'
- Powerful trending and search facilities
- Re-chargeable battery and mains operation
- Language and normal values selectable
- Highly portable
- Gold Standard Transducer
- Optional Spida 5 and SpidaXpert (diagnostic/ interpretation) Software Packages
- PC connection via Serial or USB ports



1. Simple navigation using touch-screen icons



2. Open and closed loop spirometry techniques



3. Fully configurable Bronchial Challenge testing

Parameter	Status	Parameter	Status
VC	OK	REV.75	OK
FEV1	OK	FEV3	OK
FEV6	OK	FVC	OK
FEV9	OK	FEV.75VC	OK
FEV.75PVC	OK	FEV.75VC	OK
FEV.75VC	OK	FEV.75FEV6	OK
FEV.75VC	OK	MEF.25	OK
MEF.50	OK	MEF.75	OK
MMF	OK	MMFVC	OK
FEF.50FVC	OK	MMF.75	OK
PVI	OK	PVC	OK
PE	OK	FEV.75VC	OK

4. Simple selection of parameters



5. Child incentive screen (Milk shake kid)

Medical

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 hitherto 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 (Pa) equilibrates with the pressure in the airways and the mouth (PaO) and airway resistance (kPa/l/s) is calculated from PaO/Q (pressure/flow).

Results using MicroRint correlate well with other airway resistance methods⁷ and with other measurements of lung function such as FEV1.⁸



SuperSpiro Cat. No. SU6000

Features

- Rechargeable battery or mains usage
- Bacteriological viral filters to eliminate cross infection fears
- Predicted values with pre-and postbronchodilator 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.



To know more about MicroRint
please visit www.micromedical.co.uk

Advanced, user-friendly
Spirometry PC software

The screenshot displays a multi-windowed software interface. At the top, there's a menu bar with 'File', 'Data', 'View', 'System', and 'Help'. Below it, a 'Patient List' window shows a table of patient records. A central window features an animated child blowing bubbles into a spirometer. To the right, there are several graphs: 'Best Volume Time Curve' and 'All Flow Volume Loops'. A large table in the middle-left shows detailed test results for various parameters like FEV1, FVC, and TLC. At the bottom, there's a text area for 'Amendable notes'.

Labels pointing to specific features in the screenshot:

- Fully searchable patient database (points to Patient List)
- Animated child incentive window (points to child blowing bubbles)
- Results analysis (points to the large table of test results)
- Amendable notes (points to the notes text area)
- Previous tests (points to a table of test history)
- Best Volume Time Curve (points to a graph showing volume over time)
- Best Volume Time Curve (points to another graph showing volume over time)
- All Flow Volume Loops (points to a graph showing flow-volume loops)

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 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
- 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, FEF50FVC, MVV_{ind}, FET, MET, IC, FIV₁, FIVC, PIF, FIV₁/FIVC, FIF25, FIF50, FIF75, FIF50/MEF50, V_T, 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

3000 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, 50–60Hz. Output 9V DC 1.12A

Battery Pack

Rechargeable NiMH 7.2V

Dimensions

140 x 335 x 45 mm. Transducer 50 x 60 x 90mm

Weight

Unit weight 1.5kg. Packed weight 3.8kg

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.

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