

Spirobank II®

The most powerful, the most simple Pocket Lab for diagnostic spirometry and oximetry



There are several scenarios in which the SPIROBANK II® can be used:



Full Spirometer
for Primary Care,
Wellness and Prevention,
Occupational Medicine,
Professionals.

WALK Test - DATA	
Baseline DYSPNEA	2.0
Final DYSPNEA	2.0
Baseline FATIGUE	4.0
Final FATIGUE	7.0
DISTANCE (m)	540

Pulmonary Pocket Lab
A perfect combination:
spirometer + oximeter (opt.)
All data are immediately
available on screen for
consultation and analysis.



Home Lab
Customizable solutions for
remote follow up of patient
clinical parameters directly
at home.



Record Breaking Device
Tests can be carried out
in any condition.
Very large recording
capacity.

Spirobank II®



Full Spirometer

In a handheld device with 6,000 test memory
 FVC, VC, IVC, MVV, PRE-POST BD
 Automatically records the best 3 trials
 Internal temperature sensor for automatic BTPS
 Advanced spirometry test interpretation
 Lung age estimation
 Wide selection of languages available
 USB, Bluetooth® (optional).



Home Lab

Customized telemedicine solutions. The results can be easily transmitted from the patient at home to a gateway and hub or a mobile phone which automatically uploads the data to an e-Health Platform.



Spirobank II® is currently included in the emergency kits of airborne companies. It is certified according to the severe DO-160 standards.

Walk Test - DATA	
Baseline DYSPNEA	2.0
Final DYSPNEA	2.0
Baseline FATIGUE	4.0
Final FATIGUE	7.0
Distance (m)	540

6 Minute Walk Test data

Tot. Desat. Events	563
ODI (1/h)	57.7
Mean Duration(s)	37.3
Longest Duration(s)	108
Desaturation Peak(%)	81

Sleep desaturation parameters

Pulmonary Pocket Lab

Spirometer + Oximeter (optional).

All data are immediately available on screen for consultation and analysis.

Sleep disorder detection with events recording.

Six minute walk test (6MWT) with acoustic warning for rest, walk and recovery.

Parameters directly shown on the display: min, max, mean SpO2 and Pulse Rate, Δ Index, T90, T89, T88, T5, ODI (short desaturations), NOD (long desaturations), Desaturation Area etc. 1,000 hours of recording.



Record Breaking Device

“Abissi project”: a scientific team chose MIR Spirobank II® for continuous screening of two scuba divers who managed to break this new record of living underwater for ten days! Vital signs were successfully recorded by spirometry tests carried out in the hyperbaric chamber.

Pulse-oximetry was constantly screened by Spirobank II® always underwater.

New WinspiroPRO

High performance PC software for spirometry and oximetry

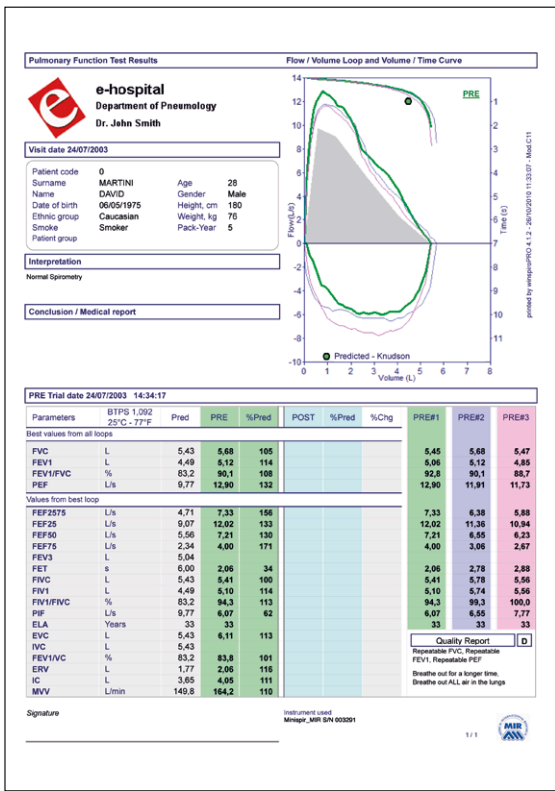
WinspiroPRO is a unique featured PC software, which comes standard with all MIR spirometers and oximeters.

All tests memorised in Spirobank II® can be downloaded into winspiroPRO and a patient data card is created automatically, with a preview of the spirometry curve.

Network Version available.

WinspiroPRO can easily be connected to a database or to an EMR, hospital or occupational health system.

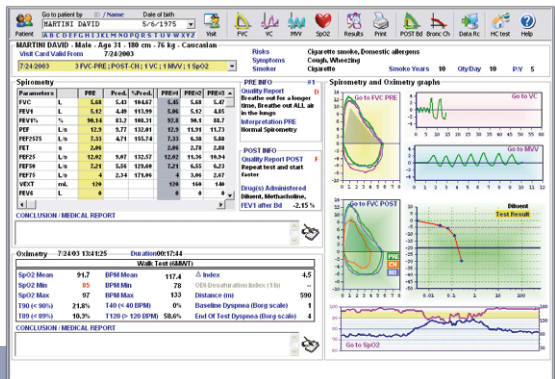
This software also gives trend of any parameter so is ideal for clinical trials and telemedicine.



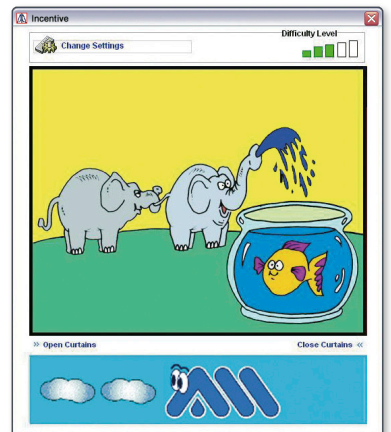
Printout: Spirometry report

Comprehensive patient records

All patient records are shown on simple, single-screen patient cards, with dynamic management of all data and graphs including SpO2 measurements during the corresponding test: spot, sleep and 6MWT.

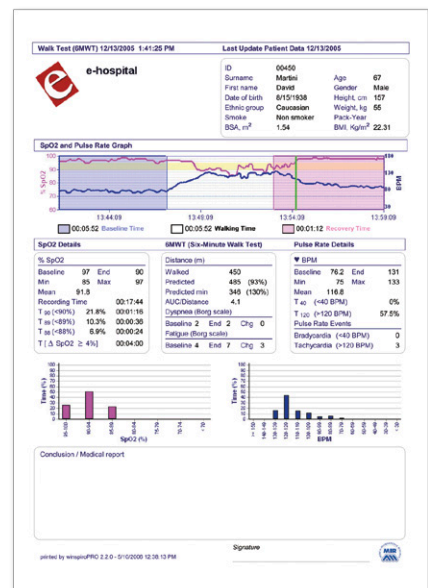


Summary of all tests carried out

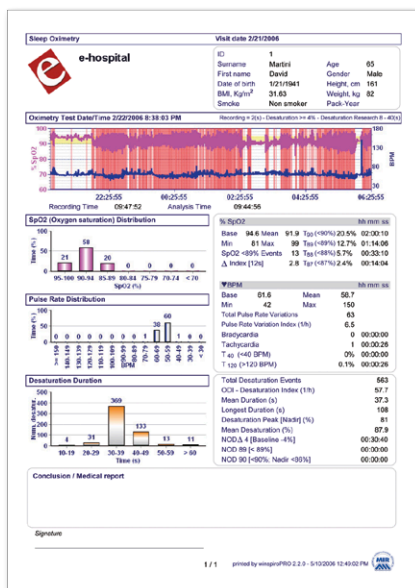


Pediatric incentive animations

The spirometry incentive routine (MIR exclusive patent), allows the user to select the patient's favourite image in order to get his maximum compliance.



Printout: 6 Minutes Walk Test (6MWT)



Printout: Sleep Oximetry with desaturation analysis

Spirobank II®

Standard price includes

- Spirobank II® base unit
- USB cable
- Carrying bag
- Plastic noseclip
- 4 × 1.5V, AAA battery
- winspiRO software CD



MIR Turbine Flowmeters (comply with ATS/ERS standards)



FlowMIR®: disposable turbine

Spirometry testing requires maximum accuracy and hygiene.

FlowMir® is the answer to both requirements. Each turbine is calibrated with a computerized system and it is packaged individually. After patient testing both the turbine and mouthpiece are thrown away. In this way 100% hygiene can be guaranteed.

Option available: reusable turbine

The accuracy and the precision of the reusable turbine remains unchanged even over time.



Spirobank II® Spirometer

Technical specifications

Temperature sensor: *semiconductor (0-45°C)*
 Flow sensor: *bi-directional digital turbine*
 Volume range: *10 L*
 Flow range: *± 16 L/s*
 Volume accuracy: *± 3% or 50 mL*
 Flow accuracy: *± 5% or 200 mL/s*
 Dynamic resistance at 12 L/s: *<0.5 cmH2O/L/s*
 Display type: *graphic LCD - FSTN*
 Display resolution: *128 × 64 pixel*
 Keyboard: *membrane, 6 Keys*
 Connectivity: *USB, Bluetooth® (optional)*
 Power Supply: *4 × 1.5V, AAA battery*
 Dimension: *2.4×5.7×1.2 inch (60×145×30 mm)*
 Weight: *6.4 Oz (180 gram) with batteries*

Measured parameters

FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV1/FEV6%, FEV6, PEF, FEF25%, FEF50%, FEF75%, FEF25-75%, FET, Vext, Lung Age, FIVC, FIV1, FIV1/FIVC%, PIF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MVV

Spirobank II® Spirometer with SpO2 Opt

Technical specifications

SpO2 range: *0-99%*
 SpO2 accuracy: *± 2% between 70-99% SpO2*
 Pulse Rate range: *30-254 BPM*
 Pulse Rate accuracy: *± 2 BPM or 2%*

Measured parameters

*Basic: SpO2 [Baseline, Min, Max, Mean],
 Pulse Rate [Baseline, Min, Max, Mean], T90 [SpO2<90%],
 T89 [SpO2<89%], T88 [SpO2<88%], T5 [ΔSpO2>5%],
 Δ Index [12s], SpO2 Events,
 Pulse Rate Events [Bradycardia, Tachycardia],
 6 Minute Walk Test: TΔ2 [SpO2≥2%], TΔ4 [ΔSpO2≥4%],
 Time [Rest, Walking, Recovery],
 Recording time, Walked Distance,
 Predicted Distance [Min, Standard],
 Desaturation Area/Distance,
 Borg Dyspnea [Baseline, End, Change],
 Borg Fatigue [Baseline, End, Change],
 Sleep Test: Desaturation Events, Desaturation Index (ODI),
 Desaturation [Value, Duration, Nadir], ΔSpO2 [Min Drop, Max Drop],
 Pulse Variations, Pulse Rate Index,
 NOD 89 [SpO2<89%; >5 min],
 NOD 4 [SpO2 Baseline-4%; >5 min],
 NOD 90 [SpO2<90%; Nadir <86%; >5 min]*

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