

# New Minispir® Line

**USB Spirometers**

COPD and Asthma screening  
has never been so intuitive  
and inexpensive

Ideal for integrated  
custom applications



**Minispir®**  
for complete  
respiratory analysis

**Minispir® *Light***  
for essential  
spirometry testing

# Minispir®

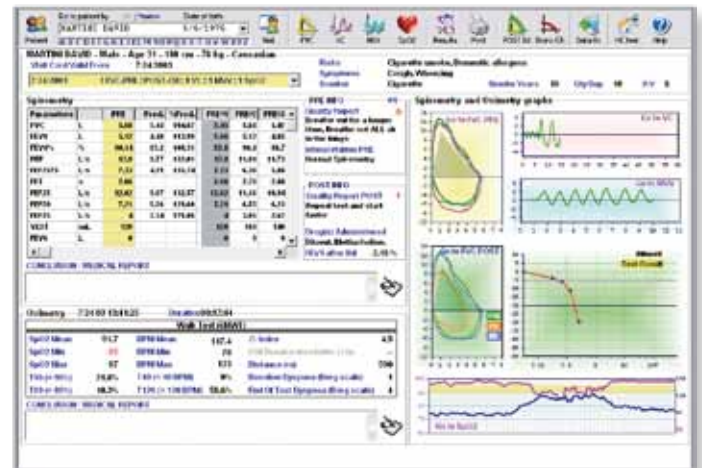
mini-laboratory  
for spirometry and oximetry

# WinspiroPRO®

high performance  
PC software



**Pediatric Incentive Animations**



Plugs directly into the USB port.  
Real time Flow/Volume loop and Volume/time curve with PRE/POST comparison.  
Advanced spirometry test interpretation.  
Pediatric incentive animations.  
Estimated Lung Age (ELA).

Bronchial provocation test including new **Mannitol** protocol with FEV1 response curve.  
Temperature sensor for BTPS conversion.

**Option available: Oximeter module**  
(it can be purchased separately)

**WinspiroPRO®** is a unique spirometry and oximetry software, which comes standard with **Minispir®**

All patient records are shown on simple, single-screen patient cards with dynamic management of all data and graphs.

**WinspiroPRO®** can easily be connected to a hospital database or EMR and occupational health system. **(HL7 interface)**

**Supports NHANES III standard.**  
**Network Version available on request**

# Minispir® *light*

## COPD and Asthma

### intuitive screener

# Winspiro® *light*

## simplified spirometry

### PC Software

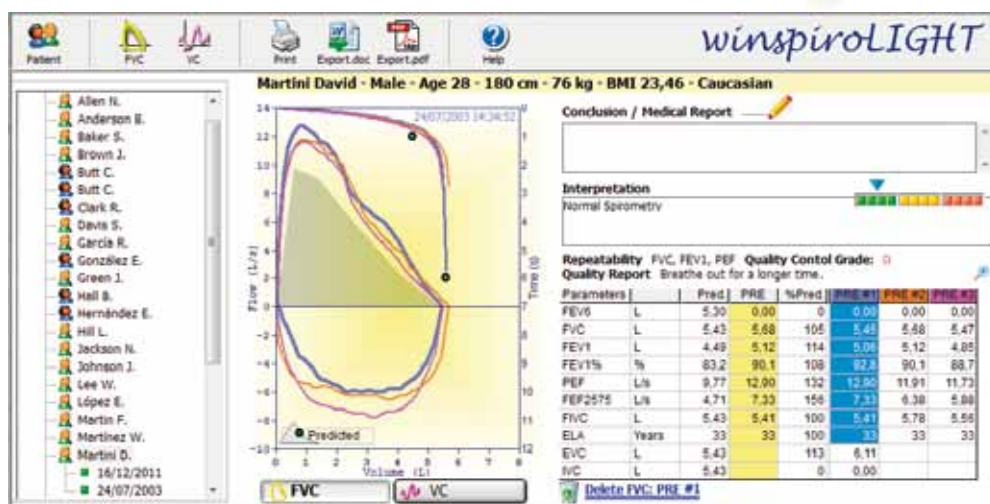


All spirometry functions in one screenshot

Patient Data

Spirometry Test

Print and Export



**Minispir® *light*** measures the essential parameters for a diagnostic spirometry:

FEV6, FVC, FEV1, FEV1%, PEF, FEF2575, FIVC, Lung Age, VC, IVC.

Flow/Volume loop and Volume/Time curve.

Spirometry test interpretation.

Temperature sensor for BTPS conversion.

Inexpensive and easy to use, Minispir® *light* meets the requirements of integrated healthcare platforms and tablet applications.

**Special edition available for POST BD test**

**Winspiro® *light*** is an intuitive and efficient software, which comes standard with **Minispir® *light*** for complete diagnosis.



Data export  
also via Email

**Pediatric Incentive Animations**

### Minispir® Spirometer

#### Technical specifications

Temperature sensor: semiconductor (0-45°C)  
 Flow sensor: bi-directional digital turbine  
 Flow range:  $\pm 16$  L/s  
 Volume accuracy:  $\pm 3\%$  or 50 mL  
 Flow accuracy:  $\pm 5\%$  or 200 mL/s  
 Dynamic resistance at 12 L/s:  $<0.5$  cmH<sub>2</sub>O/L/s  
 Communication port: USB  
 Power Supply: line powered from USB port  
 Dimension: 142x49.7x26 mm  
 Weight: 65 gram (2.5 Oz)



#### Measured parameters

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

### Minispir® Light Spirometer

#### Technical specifications

Temperature sensor: semiconductor (0-45°C)  
 Flow sensor: bi-directional digital turbine  
 Flow range:  $\pm 16$  L/s  
 Volume accuracy:  $\pm 3\%$  or 50 mL  
 Flow accuracy:  $\pm 5\%$  or 200 mL/s  
 Dynamic resistance at 12 L/s:  $<0.5$  cmH<sub>2</sub>O/L/s  
 Communication port: USB  
 Power Supply: line powered from USB port  
 Dimension: 142x49.7x26 mm  
 Weight: 65 gram (2.5 Oz)



#### Measured parameters

FVC, FEV1, FEV1%, FEV6, PEF, FEF25-75%,  
 FIVC, Lung Age, VC, IVC

### Minispir® Spirometer with SpO2 option

#### Technical specifications

SpO<sub>2</sub> range: 0-99%  
 SpO<sub>2</sub> accuracy:  $\pm 2\%$  tra 70-99% SpO<sub>2</sub>  
 Pulse Rate range: 30-300 BPM  
 Pulse Rate accuracy:  $\pm 2$  BPM or 2%

#### Measured parameters

SpO<sub>2</sub> [Baseline, Min, Max, Mean],  
 Pulse Rate [Baseline, Min, Max, Mean],  
 T90 [SpO<sub>2</sub><90%], T89 [SpO<sub>2</sub><89%], T88 [SpO<sub>2</sub><88%],  
 T5 [ $\Delta$ SpO<sub>2</sub>>5%],  $\Delta$  Index [12s], SpO<sub>2</sub> Events, Pulse Rate  
 Events [Bradycardia, Tachycardia]



### FlowMir® disposable turbine Complies with ATS/ERS standards



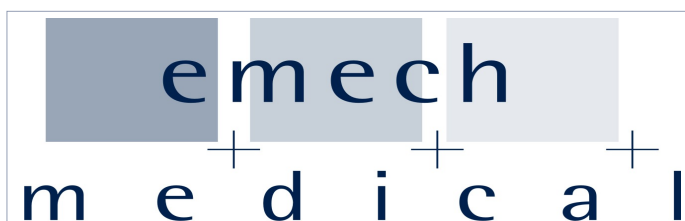
Spirometry testing  
 requires maximum  
 accuracy and hygiene.

FlowMir® is the answer to  
 both requirements.

Each turbine is factory calibrated with a computerized  
 system and packaged individually.

After patient testing both the turbine and mouthpiece  
 are discarded.

**The only solution to guarantee 100%  
 cross contamination free testing!**



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