

Personal Smart

# SPIROBANK<sup>TM</sup>

## OXI

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App-Based Spirometer with  
embedded Oximeter.

The simplest device for accurate  
Remote Patient Monitoring and  
Homecare. Real time test available on  
Smartphone via Bluetooth 5-ready



# MAIN features



## AUTOMATIC PAIR AND PLAY

Automatic pairing via Bluetooth. Real-time test result on your Smartphone



## MEASURED PARAMETERS

**Spirometry Parameters:**  
PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FET, FEF25, FEF50, FIVC, FIV1, PIF, FEV3, FEV05, FEV075, FEV2

**Oximetry Parameters:**  
%SpO2min, %SpO2mean, %SpO2max, BPMmin, BPMmean, BPMmax, Ttotal



## COMPLIANCE ATS/ERS 2019

And other Standards including ISO 26782 (for Spirometry), ISO 23747 (for PEF), ISO 80601-2-61 (for Oximetry) and more. CE0476, FDA Cleared.



# DISTINCTIVE features



## SPIROMETRY GUIDELINES

Suitable for all ages from 5 to 93 years and multi-ethnic groups (GLI predicted sets)



## REAL-TIME OXIMETRY

Innovative reflectance pulse-oximetry sensor (Touch). Easy to use and accurate.



## LIVE VIDEO EXAM

Connect with your Healthcare provider in real-time, from the comfort of your home



## COVID-19 PANDEMIC

Avoid going to the hospital or medical offices during COVID-19 pandemic

## GO-TO-MARKET TOOLKIT

Software Development Kit available for System Integrators and App Developers.  
OEM service available for Spirometry and Oximetry.



Learn more about available SDK and OEM



Up- to 30 Spirometry parameters and 8 Oximetry parameters available via SDK!

## Always INCLUDED

- 2x AAA 1.5V Batteries
- Single Patient Reusable Turbine
- Plastic reusable mouthpiece
- User manual
- App for Smartphone (iOS and Android)

# Compatible SOFTWARE

## MIR SPIROBANK APP

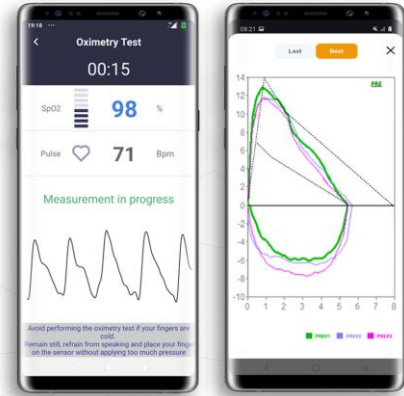
Mobile App (iOS and Android), for real time **spirometry and oximetry** test, directly on your Smartphone via Bluetooth 5-ready



### REAL TIME TEST

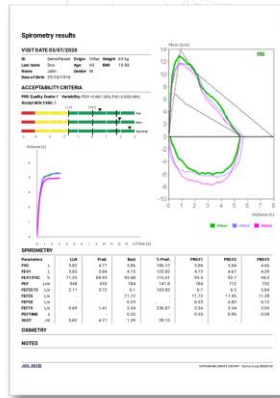
Spirometry: PEF, FVC, FEV1, FEV1/FVC ratio, FEF25/75, FEV6, VEXT, DTPEF, FEF75, FEF25, FEF50.

Oximetry: SpO2% (mean), Pulse BPM (mean)



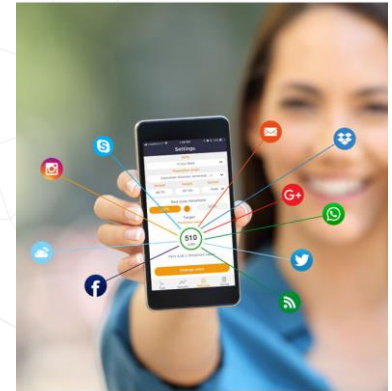
### MEDICAL REPORT

Professional PDF report Including Acceptability Messages, Quality Control Grade, Acceptable Trials, Variability of FEV1 and FVC, Pictograms



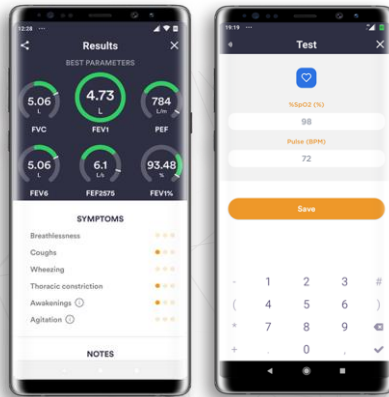
### SHARE RESULTS

Share results in PDF With anyone at anytime via eMail, Whatsapp, SMS, Cloud, Drive Bluetooth, Airdrop and other Apps



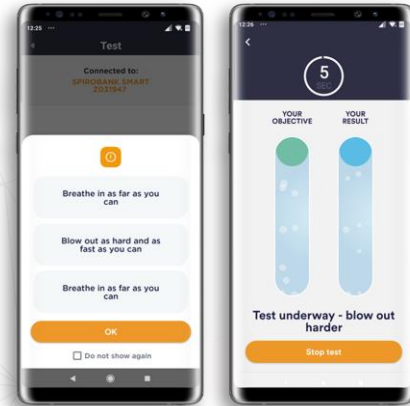
### PERSONAL TREND

E-diary, symptoms and notes can be added for each test. Oximetry results can also be added manually on the App



### INCENTIVE

Real time animation on Smartphone, to improve personal compliance during the test



# Compatible TURBINES

**Single Patient Reusable Turbine**



Mouthpiece

Included Reusable

Turbine Disinfection

Not required

Turbine Calibration

Not required

Packaging

Individually sealed: 1 unit / box

Antiviral Filter

Not required

**flowMIR™ Disposable Turbine**



Included Disposable

Not required

Not required

Individually sealed: 60 or 10 units / box

Not required



PLAY VIDEO REVIEW



SCIENTIFIC PUBLICATIONS



# TECHNICAL datasheet

PRODUCT CODE 911125

## Technical specification

<b>Width</b>	49 mm
<b>Length</b>	109 mm
<b>Thickness</b>	21 mm
<b>Weight</b>	60.7 g (batteries included)

### Turbine



Reusable Turbine with plastic Mouthpiece (code 910013)



Disposable Turbine (code 910004)

<b>Mouthpiece</b>	Ø 30 mm (1.18 inches)
<b>Power supply</b>	2 batteries AAA 1.5 V
<b>Consumption</b>	max 12 mA average 8 µA (Stand by) 5-10 years
<b>Autonomy</b>	5-10 years
<b>IP protection level</b>	IP22
<b>Connectivity</b>	Bluetooth® 5-ready
<b>Type of electrical protection</b>	Internally powered
<b>Safety level for shock hazard</b>	Type BF Apparatus
<b>Conditions of use</b>	Apparatus for continuous use

<b>Storage conditions</b>	Temperature:	MIN -25 °C, MAX + 70 °C
	Humidity:	MIN 10% RH; MAX 93% RH

<b>Operating Conditions</b>	Temperature:	MIN + 5 °C, MAX + 40 °C
	Humidity:	MIN 15% RH, MAX 93% RH

<b>Shipping conditions</b>	Temperature:	MIN -25 °C MAX + 70 °C
	Humidity:	MIN 10% RH; MAX 93% RH

<b>Applicable standards</b>	ATS/ERS: 2005, 2019 Update ISO 26782: 2009 ISO 23747: 2015 ISO 14971: 2019 ISO 10993-1: 2018 2011/65/UE Directive EN ISO 15223: 2016 IEC 60601-1: 2005+Amd1:2012 EN 60601-1-2: 2015 IEC 60601-1-6: 2010+Amd2013 EN 60601-1-11: 2015 ISO 80601-2-61: 2017
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## Spirometry

<b>Flow sensor</b>	bi-directional digital turbine
<b>Flow range</b>	16L/s (960 L/m)
<b>Volume range</b>	10 L
<b>Volume accuracy</b>	±2.5% o ±0.05L
<b>Flow accuracy</b>	±5.0% o 0,20 L/s
<b>Dynamic resistance</b>	<0.5 cm H <sub>2</sub> O/L/s (a 12 L/s)
<b>Temperature sensor</b>	none
<b>Available test</b>	FVC
<b>Measured parameters</b>	FEV1, PEF, FVC, FEV1/FVC, FEV6, FEF2575
<b>Additional parameters available with F/V version</b>	FIVC, FIV1, PIF FEF25, FEF50, FEF75, EVol, FEV05, FEV075, FEV2, FEV3, FET, PEF Time
<b>Memory capacity</b>	the application on the remote device (smartphone/tablet) memorizes data

## Oximetry

<b>Measuring method</b>	double wavelength
<b>%SpO<sub>2</sub> range</b>	70%-100%
<b>%SpO<sub>2</sub> accuracy</b>	±1.9%
<b>Average number of beats for the %SpO<sub>2</sub> calculation</b>	12 beats
<b>Pulse Rate range</b>	30-200 BPM
<b>Pulse Rate accuracy</b>	±3%
<b>Average interval for Pulse rate calculation</b>	12 seconds
<b>Quality signal indicator</b>	0-8 lines
<b>Available tests</b>	spot
<b>Measured parameters</b>	%SpO <sub>2</sub> MIN, %SpO <sub>2</sub> MEAN, %SpO <sub>2</sub> MAX, BPM <sub>MIN</sub> , BPM <sub>MEAN</sub> , BPM <sub>MAX</sub> , T <sub>TOTAL</sub>
<b>Wavelength sensors</b>	Red 660 nm Infrared 880 nm
<b>Maximum optical output power</b>	1.2 mW

## Certification & Registration

<b>CE 0476</b>	MED 9826
<b>FDA 510 (k)</b>	cleared
<b>Health Canada</b>	pending
<b>Codice CND</b>	Z12150102
<b>Codice GMDN</b>	46906

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