



# Spirometry, Oximetry and MedTech solutions

[www.spirometry.com](http://www.spirometry.com)  
[www.mirsmartone.com](http://www.mirsmartone.com)



# Global MIR Market

MIR distributes its products in over 100 countries and it has been ranked among the top 5 Spirometry manufacturers in the world!

MIR is identified as a **visionary leader** for the strength of product portfolio, distribution network across the globe and business strategy excellence.

## Distribution

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**100**

**countries**  
in the world

## Experience

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**30**

**years**  
**of experience**  
in Spirometry

## Patents

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**8**

exclusive  
international  
**patents**

## Research

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**16%**

annual turnover  
invested in **R&D**

# Professional Use Products

Spirolab  
Spirodoc  
Spirobank II Smart

Spirobank II Basic  
Minispir  
Minispir Light



PROFESSIONAL

## Spirolab™

Complete Touchscreen Desktop Spirometer with built-in printer  
Stand Alone and PC connection via USB

\*  
with  
Oximetry  
option

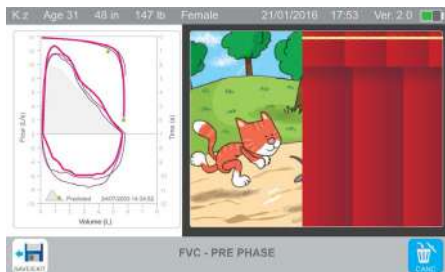


7" LCD Color  
Touchscreen

Fast operating system and data entry

Real-time tests

GLI predicted sets



**Pediatric incentive** available on display

**Built-in printer** with customizable  
printout format

**Long-lasting** rechargeable battery  
and **massive** internal storage

 ATS/ERS 2019, CE 0476, FDA 510(k)

 Available with both **disposable** or **reusable**  
turbine flowmeter

 MIR Spiro New Spirometry Software for **Windows** and **MacOs**  
Spirometry test: FVC, VC, IVC, MVV, PRE/POST Bronchodilator  
comparison with a wide range of selectable parameters

PROFESSIONAL

# Spirodoc™

Portable Touchscreen Spirometer with 3D Oximetry option  
Stand Alone and PC connection via USB

\*  
with  
Oximetry  
option



Patient data entry



Detachable flowmeter head to  
facilitate Oximetry test.

## 6MWT, Sleep Test

Real-time tests

**Long-lasting** rechargeable battery  
and **massive** internal storage

Triaxial accelerometer for verification of the  
patient's ability to move and positioning  
during recording.

CE 0476, FDA 510(k)

Available with both **disposable** or **reusable**  
turbine flowmeter



MIR Spiro New Spirometry Software for **Windows** and **MacOs**



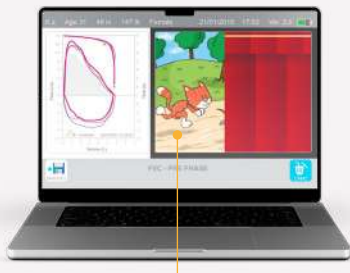
Spirometry test: FVC, VC, IVC, MVV, PRE/POST Bronchodilator  
comparison with a wide range of selectable parameters

PROFESSIONAL

# Spirobank II™ Smart

Portable Spirometer for iPad and PC  
Stand Alone and PC connection via Bluetooth and USB

\*  
with  
Oximetry  
option



Pediatric Incentive



Real-time tests

**SpO2% and pulse rate** (optional) directly on the display (including **plethysmographic curve**)

**Long-lasting** rechargeable battery and **massive** internal storage



ATS/ERS 2019, CE 0476, FDA 510(k)



Available with both **disposable** or **reusable** turbine flowmeter



MIR Spiro New Spirometry Software for **Windows** and **MacOs**



Spirometry test: FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison with a wide range of selectable parameters

PROFESSIONAL

## Spirobank II™ Basic

Portable and easy to use spirometer  
Stand Alone and PC connection via USB



**Ideal for family doctors,**  
occupational medicine, screenings

Real-time tests

**Spirometric parameters:** FVC, FEV1, FEV1%,  
PEF, FEV25–75, FET, Extrap. Volume, Estimated  
Lung Age, VC, IVC, IC, ERV.



ATS/ERS 2019, CE 0476, FDA 510(k)



Available with both **disposable** or **reusable**  
turbine flowmeter



MIR Spiro New Spirometry Software for **Windows**  
and **MacOs**



Spirometry test: FVC, VC, IVC, PRE/POST  
Bronchodilator comparison with a wide range  
of selectable parameters

PROFESSIONAL

## Minispir™

PC-based  
Spirometer



**Real time Flow/Volume and Volume/Time curves** on your PC for a comprehensive Spirometry

**Real time COPD and Asthma screening**

Powered via USB, no display, no internal memory, no maintenance

Includes a wide range of selectable parameters

PROFESSIONAL

## Minispir™ Light Post BD

Simplified PC-based Spirometer



**Real time Flow/Volume and Volume/Time curves** on your PC for a comprehensive Spirometry

**Real time COPD and Asthma screening** have never been so **intuitive** and **inexpensive!**

Powered via USB, no internal memory, no display, no maintenance



ATS/ERS 2019, CE 0476, FDA 510 (k)



Available with both **disposable** or **reusable** turbine flowmeter



MIR Spiro New Spirometry Software for Windows and MacOS



Spirometry test: FVC, VC, IVC, MVV, PRE/ POST Bronchodilator comparison with a wide range of selectable parameters



ATS/ERS 2019, CE 0476, FDA 510 (k)



Available with both **disposable** or **reusable** turbine flowmeter



MIR Spiro New Spirometry Software for **Windows** and **MacOs**



Spirometry test: FVC, VC, IVC, PRE/ POST Bronchodilator comparison



## MIR Spiro

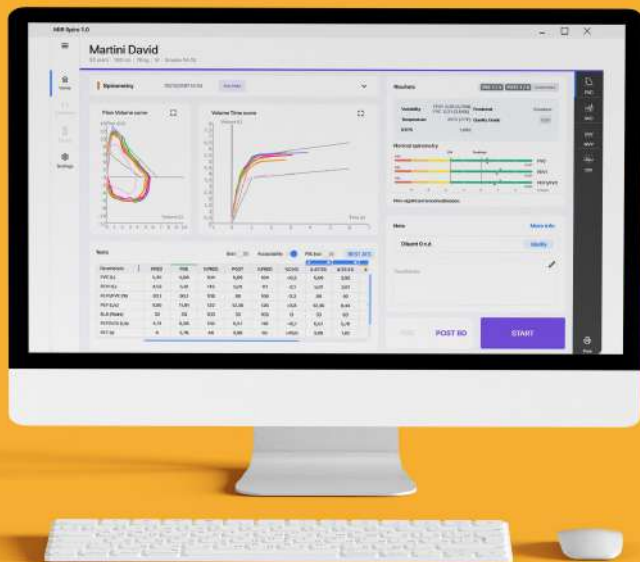
A completely innovative software  
for Spirometry and Oximetry

**MIR Spiro** is the **next-generation software** for **Spirometry** and **Oximetry**. It complies with **ATS/ERS 2019** guidelines and it is compatible with all professional MIR clinical spirometry products.

**Powerfull** and **advanced**, **MIR Spiro** provides a **wider range** of features in a **new style graphic** and **customizable settings**. Featuring a **new user interface**, **MIR Spiro** is much more user **intuitive**, **easy-to-use** and offers **easier interoperability** for **EHR/EMR integration**.

Plus the **automatic update** feature allows having the most up-to-date version of software available.

By upgrading to the **MIR Spiro Platinum**, the **premium software version** of **MIR Spiro**, you will **unlock** many **other features** and open a **wider range** of **extra contents**, such as: different selectable printouts, fully customizable settings and parameters view, Tests previews, MVV Management, PRE, POST and printing, Data sharing in different formats, Data migration from multiple databases and more.



Enjoy all functions unlocked!

# MIR Spiro Platinum

Switch to Platinum and enjoy all functions unlocked!

		BASIC	PLATINUM
TEST	FVC Pre/Post	✓	✓
	VC Pre/Post	✓	✓
	Oximetry Spot	✓	✓
	MVV Pre/Post	✗	✓
	Oximetry 6MWT	✗	✓
	Oximetry Sleep	✗	✓
PATIENT MANAGEMENT	New patient/Patient List	✓	✓
	Patient Search	✓	✓
	Patient Session Summary	✗	✓
	Patient Risk factors/Symptoms	✓	✓
	Test cronology comparison	✗	✓
	Worklist	✗	✓
PRINTOUTS	FVC Printout STD	✓	✓
	FVC Printout ATS 2019	✓	✓
	FVC Printout STD NIOSH/OSHA	✗	✓
	Oximetry Printout	✗	✓
	Calibration Printout	✗	✓
	VC Printout	✗	✓
	Quality Grade Printout	✓	✓
DATA MANAGEMENT	Data sharing/Interoperability	✓	✓
	Data import from Legacy db	✓	✓
	Data Import from third parties sfw db	✓	✓
	Data Export in Excel/csv/ATS/HL7/GDT	✗	✓
	Data Recovery	✗	✓

# FlowMIR

Disposable Turbine Flowmeter MIR exclusive product International patent



Each turbine, which includes a cardboard mouthpiece, has been individually factory tested with a computerized system

For each patient, after the Spirometry test, both **turbine** and **mouthpiece** are **thrown away**

**100% hygienic**

INTERNATIONAL PATENT

VOLUME ACCURACY  $\pm 2,5\%$  OR 50 ML

FlowMIR Dispensers (60 pcs)

 Comfortable Packaging

 Singulary Tested and Packed

 Eliminates staff clean-up time

 No Sterilisation

 No Calibration needed

 No Cross Contamination

 No Antibacterial Filter

 Always 100% accurate and hygienic

 ATS/ERS Compliant for accuracy

 Not affected by Vapour Condensation

 Not affected by Ambient conditions

 The Best Sensor for Spirometry

# Personal Use Products

Spirobank Smart  
Spirobank Oxi

Smart One  
Smart One Oxi



PERSONAL APP-BASED SPIROMETER

## Spirobank Smart

The simplest device for cost-effective Spirometry on your smartphone



PERSONAL



## Spirobank Oxi

Available with SpO2% and BPM



### Common features Spirobank Smart and Oxi:

Real time test on Smartphone

**Test results** and Spirometry guidelines are **easy to understand**

**Ready to Connect:** designed for **Remote Patient Monitoring**, Homecare, Clinical Trials and 3rd party software integration

### Additional features Spirobank Oxi:

**Innovative reflectance Pulse Oximetry Sensor** (Touch)

**Real-Time plethysmographic curve** on Smartphone



 **Smart:** ATS/ERS 2019, CE 0476, FDA 510 (k)

**Oxi:** ATS/ERS 2019, CE 0476, FDA Pending

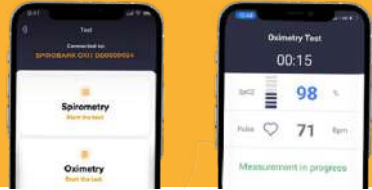
 Available with both **disposable** or **reusable** turbine flowmeter

 Spirometry test: PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FEF25, FEF50



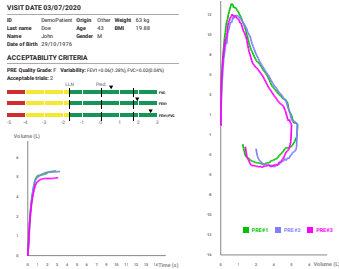
# MIR Spirobank App

Real-time Spirometry and Oximetry test on patient's Smartphone



**Go-To-Market toolkit:** Software Development Kit (SDK) available for App developers

### Spirometry results



### SPIROMETRY

Parameter	U/L	Pre	Post	% Pred	PRE#1	PRE#2	PRE#3
FVC	L	2.82	4.77	166.12	5.88	5.86	4.66
FEV1	L	2.03	3.84	4.73	123.00	4.73	4.67
FEV1/FVC	%	71.25	80.80	90.46	115.01	81.3	92.7
PEF	L/min	348	553	764	161.6	764	712
FEF275	L/s	-	-	4.1	-	6.1	6.5
FEF275	L/s	2.11	3.72	11.72	114.5	114.5	112.8
FEF275	L/s	-	-	15.25	-	6.22	6.12
FEF75	L/s	0.69	1.41	3.34	236.87	3.34	3.54
PEFR	L/s	-	-	9.55	-	9.55	9.6
VEVT	ml	3.82	4.77	1.26	29.15	-	0.58

### OXIMETRY

Parameter	U/L	Pre	Post
SpO2	%	98	98

### NOTES

Parameter	U/L	Pre	Post
SpO2	%	98	98

Parameter	U/L	Pre	Post
SpO2	%	98	98

Parameter	U/L	Pre	Post
SpO2	%	98	98

Parameter	U/L	Pre	Post
SpO2	%	98	98

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SpO2	%	98	98

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SpO2	%	98	98

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SpO2	%	98	98

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SpO2	%	98	98

Parameter	U/L	Pre	Post
SpO2	%	98	98

Parameter	U/L	Pre	Post
SpO2	%	98	98

Parameter	U/L	Pre	Post
SpO2	%	98	98

## Main Features

- Spirometry and Oximetry test in one App
- Automatic connection via Bluetooth Smart BLE 5.0
- Suitable for all ages excluding newborns and infants
- GLI-2012 predicted sets for Spirometry reference value

## Distinctive Features

- Acceptability Messages and real time animation on Smartphone to improve personal compliance during the test
- E-diary, symptoms and notes can be added for each test
- Easy-to-read graphic trends for self-monitoring of Spirometry and Oximetry
- Flow/Volume loop and real-time plethysmographic curve on screen

## Professional PDF Report

Share PDF report via WhatsApp, e-mail and other applications

## Live Video Exam

App for remote Spirometry and Oximetry

Always up-to-date



**PERSONAL** APP-BASED SPIROMETER

## Smart One™

Peak Flow and FEV1 on your Smartphone and Tablet



**PERSONAL**

## Smart One Oxi™

Now available with SpO2% and BPM



### Common features Smart One and Oxi:

Ideal in the **self-management of Asthma, COPD, Lung Transplant Care, Cystic Fibrosis** and for use in Clinical Trials

**Easy-to-read** test results. Symptoms scoring and notes can be added to each test.

**Ready-to-Connect** with 3rd party Apps for Personal Care

### Additional features Smart One Oxi:

**Innovative reflectance Pulse-Oximetry sensor** (Touch)

**Real time plethysmographic curve** on Smartphone and Tablet



**Smart One:** ATS/ESR 2019, CE0476, FDA 510(k) – O.T.C.

**Oxi:** ATS/ESR 2019, CE0476, FDA Pending



Available with **reusable** single patient turbine flowmeter



Spirometry test: PEF, FEV1





android  iOS

# Smart One App

Measurement of peak flow and oximetry for basic self-screening on your Smartphone



Date	Time	PEF (L)	FEV1 (%)	FEV1 (L)	PEF (L)	Compliance/Notes
10 Sep 2020	08:30:00 AM	520	80	1.20	5.00	
11 Sep 2020	08:30:00 AM	490	80	1.10	4.80	
10 Sep 2020	08:30:00 AM	460	80	1.00	4.60	
10 Sep 2020	08:30:00 AM	430	80	0.90	4.30	
10 Sep 2020	08:30:00 AM	400	80	0.80	4.00	
10 Sep 2020	08:30:00 AM	370	80	0.70	3.70	
10 Sep 2020	08:30:00 AM	340	80	0.60	3.40	
10 Sep 2020	08:30:00 AM	310	80	0.50	3.10	
10 Sep 2020	08:30:00 AM	280	80	0.40	2.80	
10 Sep 2020	08:30:00 AM	250	80	0.30	2.50	
10 Sep 2020	08:30:00 AM	220	80	0.20	2.20	
10 Sep 2020	08:30:00 AM	190	80	0.10	1.90	
10 Sep 2020	08:30:00 AM	160	80	0.00	1.60	
10 Sep 2020	08:30:00 AM	130	80	0.00	1.30	
10 Sep 2020	08:30:00 AM	100	80	0.00	1.00	
10 Sep 2020	08:30:00 AM	70	80	0.00	0.70	
10 Sep 2020	08:30:00 AM	40	80	0.00	0.40	
10 Sep 2020	08:30:00 AM	10	80	0.00	0.10	

## Main Features

- Spirometry and Oximetry test in one App
- Automatic connection via Bluetooth Smart BLE 5.0
- Suitable for all ages excluding newborns and infants
- GLI-2012 predicted sets for Spirometry reference value

## Distinctive Features

- Acceptability Messages and Real-time animation on Smartphone and Tablet to improve personal compliance during the test
- E-diary, for symptoms and notes can be added for each test
- Easy-to-read graphic trends for self-monitoring of Spirometry and Oximetry
- Acceptability Messages, "Traffic Light" result interpretation for Peak Flow

Always up-to-date



**Go-To-Market toolkit:** Software Development Kit (SDK) available for App developers

android  iOS  Windows 

## Live Video Exam

App for remote Spirometry and Oximetry



**Live Video Exam** is a Windows-based **PC software** dedicated for Health Care Providers to support the patient (connected via Smartphone to the **MIR Spirobank App**) in performing spirometry and oximetry test remotely in real time.

Live Medical Supervision increases patient cooperation in performing the test and is essential in obtaining optimal test results.

The App include **real-time video support** of the Health Care Provider.

Peer-to-Peer connection is **secure** and **protected** by end-to-end-encryption.

HCP receives data in real-time on the PC, can add notes and therapeutic plans, save and share results in PDF. Patient only needs to focus on the test. The software will transfer data automatically.

Live Video Exam: **monitor your patients remotely!**



# MIR SDK

Software Development Kit (SDK) for iOS and Android  
Develop your own Spirometry and Oximetry App  
with limited time and efforts!



## MIR Software Development Kit

The MIR Software Development Kit allows you to easily connect and handle MIR spirometers and oximeters into your application.

Ideal for remote patient monitoring, clinical trials and more Develop your own Spirometry and Oximetry App with limited time and efforts.

### Complete FVC Test

For Apps designed to Detect, Diagnose,  
Manage the most common respiratory disease

### Include SVC test

Additional Health Surveillance as requested by  
many Hospitals and Clinics

### Continuous flow monitor

Retrieve a Flow point each 10 milliseconds  
of Time, to develop Apps for Clinical Trials,  
Respiratory Rehabilitation and Games

### PEF & FEV1 Test

Expiratory flows in 1 second to develop Asthma  
and COPD monitoring Apps

### Oximetry Test

Plethysmographic curve and real-time SpO2%  
and BPM for Oximetry

## Main Features

### ✓ **Bluetooth connection**

Device discovery, connection, start test,  
perform test, battery level, firmware/Csr  
version and more

### ✓ **Effortless Development**

Only native language (Java/Kotlin, Objective-C/  
Swift). SDK libraries reduce the time-to-  
market, no medical engineering skills required

## Distinctive Features

### ✓ **Spirometry Guidelines**

Not only raw data: SDK include “reference”  
values for Spirometry and get predicted,  
LLN and Z-Score values

### ✓ **Interactive and intuitive**

“Acceptability” warnings and instructions for  
patients, according to the latest ATS 2019  
guidelines

### ✓ **Global and multi-ethnic**

GLI-2012 equations for multi-ethnic groups  
and the 5-93 age range. Develop a global  
App for international customers

### ✓ **Always Up-To-Date**

Subscribe and join MIR Developer Program,  
receive SDK updates and MIR developer badge

# Our new business: Cardiology

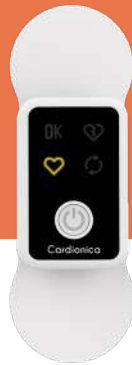
Cardionica



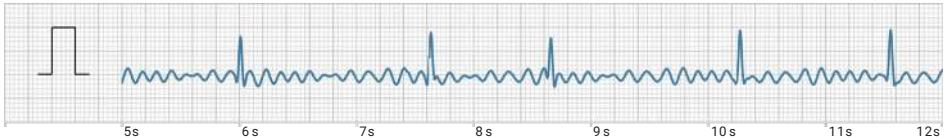
PERSONAL

# Cardionica

Medical – grade portable,  
single – lead ECG



Atrial Fibrillation  
Date/time: 30/03/22 14:38  
Heart rate: 65 bpm




Ideal for **heart rhythm check**, the **detection of atrial fibrillation**, **tachycardia**, **bradycardia**, as well as **stroke prevention**.

Brand-new portable single-lead ECG to measure the rhythm of your heart beats every day.

**Easy to use**, track your heart health in **one minute**, everywhere you are and with the accuracy of a clinical setting.

The first personal ECG you can use in **stand-alone** mode (embedded display with colored LED indicators and internal memory up-to 120 test) and **via Bluetooth® directly from your Smartphone** (free mobile App always included).

Personal ECG tracing in PDF and EDP format to be shared with anyone via E-mail, WhatsApp, cloud server and other apps




 EKG analysis in line with 2020 AF guidelines (ECG, P-wave, RR irregularity)

 Accurate in compliance with international Standard IEC 60601-2-47




 Always included: 4X patches and personal App (Cardionica) for iOS and Android Smartphones

 Noise reduction and motion artifact detection

# Comparison Matrix – General features




	Spirolab 	Spirodoc 	Spirobank II Smart 
<b>Dimensions</b>	8.6x8.3x2" (220x210x51 mm)	4.2x2.4x1.0" (101x48x16 mm)	6x2x1" (160x55x25 mm)
<b>Display</b>	7"	3"	2.5"
<b>Weight</b>	51 Oz (1450 g)	4 Oz (116 g)	5 Oz (140 g)
<b>Carrying Case</b>	Included	Included	Included
<b>Device Type</b>	Desktop	Pocket Size	Pocket Size
<b>Real Time PC</b>	Yes	Yes	Yes
<b>Real Time Tablet</b>	No	No	Yes
<b>Power Supply</b>	Rechargeable battery	Rechargeable battery	Rechargeable battery
<b>Battery Charger</b>	Included	Not included	Not included
<b>Thermal Printer</b>	Internal	No	No
<b>Connectivity</b>	USB	USB, Bluetooth 2.1	USB, Bluetooth 4.0
<b>USB to Printer</b>	Yes	No	No
<b>Post BD</b>	Yes	Yes	Yes
<b>Memory Spiro</b>	10.000 tests	10.000 tests	10.000 tests
<b>Pulse – Oximetry</b>	Optional	Optional	Optional
<b>Sensor Type</b>	Turbine	Turbine	Turbine
<b>Disposable Sensor</b>	Yes	Yes	Yes
<b>Reusable Sensor</b>	Yes	Yes	Yes
<b>Software name always included</b>	MIR Spiro	MIR Spiro	MIR Spiro
<b>USB to PC</b>	Yes	Yes	Yes
<b>Bluetooth to PC</b>	Yes	No	Yes

MIR products comply with the latest ATS/ERS standardization of spirometry (September 2019 update), Volume accuracy  $\pm 2.5\%$  or 50 ml

Spirobank II Basic 	Minispir 	Minispir Light Post BD 
6x2x1" (160x55x25 mm)	5.5x1.9x1" (142x49,7x26 mm)	5.5x1.9x1" (142x49,7x26 mm)
2,5"	Not Required	Not Required
5 Oz (140 g)	2.2 Oz (65 g)	2.2 Oz (65 g)
Included	Included	No
Pocket Size	PC Based	PC Based
Yes	Yes	Yes
No	No	No
Rechargeable battery	USB Socket of PC	USB Socket of PC
Not included	Not Required	Not Required
No	No	No
USB	USB	USB
No	No	No
Yes	Yes	Yes
10.000 tests	Uses PC memory	Uses PC memory
No	No	No
Turbine	Turbine	Turbine
Yes	Yes	Yes
Yes	Yes	No
MIR Spiro	MIR Spiro	MIR Spiro
Yes	Yes	Yes
No	No	No




MIR products comply with the latest ATS/ERS standardization of spirometry (September 2019 update), Volume accuracy  $\pm 2,5\%$  or 50 ml

# Comparison Matrix – Spirometry Parameters

	<b>Spirolab</b> 	<b>Spirodoc</b> 	<b>Spirobank II Smart</b> 
<b>STAND ALONE</b>	<p>FVC, FEV1, FEV1/ FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25–75, FEF75–85, Lung Age, Extrapolated Volume, FET, Time to PEF, FEV0.5, FEV0.5/F-VC, FEV0.75, FEV0.75/ FVC, FEV2, FEV2/ FVC, FEV3, FEV3/ FVC, FEV6, FEV1/ FEV6, FEV1/PEF, FEV1/FEV0.5, FIVC, FIV1, FIV1/ FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, tl, tE, VT/tl, tE/tTOT, MVV (measured), MVV (calculated)</p>	<p>FVC, FEV1, FEV1/ FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25–75, FEF75–85, Lung Age, Extrapolated Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/ FVC, FEV2, FEV2/ FVC, FEV3, FEV3/ FVC, FEV6, FEV1/ FEV6, FEV1/PEF, FEV1/FEV0.5, FIVC, FIV1, FIV1/ FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, ERV, IRV, Rf, VE, VT, tl, tE, VT/tl, tE/tTOT, MVV (measured), MVV (calculated)</p>	<p>FVC, FEV1, FEV1/ FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25–75, FEF75–85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/ FVC, FEV2, FEV2/ FVC, FEV3, FEV3/ FVC, FEV6, FEV1/ FEV6, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/ FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, tl, tE, VT/ tl, tE/tTOT, MVV (measured), MVV (calculated)</p>
<b>PC WITH MIR SPIRO (WIN/MAC)</b>	<p><b>Basic:</b> FVC, FEV1, PEF, FEF75, FEF 2575, FET, FEV1/FVC, FEV6, FEV1/FEV6, FEF25, FEF50, FIVC, FEV1/VC, ELA, MVV (cal), PEFTIME, FEV05/ FVC, FEV075, FEV075/FVC, FEF7585, Extr. Vol, VC, EVC, IVC, IC, VC, ERV</p> <p><b>In addition with platinum version:</b> FEV3, FIV1, FIV1/FIVC, PIF, FEV3/FVC, PIF, FEV2, FEV2/ FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV05 (RFEV), TV, VE, RR, tl, tE, TV/tl, tl/Ttot, IRV, te/ti, VTTI, MV,MVV</p>	<p><b>Basic:</b> FVC, FEV1, PEF, FEF75, FEF 2575, FET, FEV1/FVC, FEV6, FEV1/FE- V6, FEF25, FEF50, FIVC, FEV1/VC, ELA, MVV(cal), PEFTIME, FEV05, FEV05/FVC, FEV075, FEV075/FVC, FEF 7585, Extr. Vol, VC, EVC, IVC, IC, VC, ERV</p> <p><b>In addition with platinum version:</b> FEV3, FIV1, FIV1/FIVC, PIF, FEV3/F- VC, PIF, FEV2, FEV2/FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV05 (RFEV), TV, VE, RR, tl, tE, TV/tl, tl/Ttot, IRV, te/ti, VTTI, MV,MVV</p>	<p><b>Basic:</b> FVC, FEV1, PEF, FEF75, FEF 2575, FET, FEV1/FVC, FEV6, FEV1/FEV6, FEF25, FEF50, FIVC, FEV1/VC, ELA, MVV(cal), PEFTIME, FEV05, FEV05/FVC, FEV075, FEV075/FVC, FEF 7585, Extr. Vol, VC, EVC, IVC, IC, VC, ERV</p> <p><b>In addition with platinum version:</b> FEV3, FIV1, FIV1/FIVC, PIF, FEV3/FVC, PIF, FEV2, FEV2/ FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV05 (RFEV), TV, VE, RR, tl, tE, TV/tl, tl/Ttot, IRV, te/ti, VTTI, MV,MVV</p>
<b>IPAD WITH MIR SPIRO APP</b>	No	No	FVC, FEV1, PEF, FEF25–75, FET, ELA, IVC, EVC

MIR products comply with the latest ATS/ERS standardization of spirometry (September 2019 update), Volume accuracy  $\pm 2.5\%$  or 50 ml



<b>Spirobank II Basic</b> 	<b>Minispir</b> 	<b>Minispir Light Post BD</b> 
<p>FVC, FEV1, FEV1%, PEF, FEF25–75, FET, Extrap. Volume, Lung Age, VC, IVC, IC, ERV</p>	<p>No</p>	<p>No</p>
<p><b>Basic:</b> FVC, FEV1, FEV1%, PEF, FEF25–75, FET, Extr. Vol, Lung Age, VC, IVC, IC, ERV</p> <p><b>In addition with platinum version:</b> MVV</p>	<p><b>Basic:</b> FVC, FEV1, PEF, FEF75, FEF2575, FET, FEV1/FVC, FEV6, FEV1/FEV6, FEF25, FEF50, FIVC, FEV1/VC, ELA, MVV(cal), PEFTIME, FEV05, FEV05/FVC, FEV075, FEV075/FVC, FEF7585, Extr. Vol., VC, EVC, IVC, IC, VC, ERV</p> <p><b>In addition with platinum version:</b> FEV3, FIV1, FIV1/FIVC, PIF, FEV3/FVC, PIF, FEV2, FEV2/FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV05 (RFEV), TV, VE, RR, tl, tE, TV/tl, tl/Ttot, IRV, te/ti, VTTI, MV, MVV</p>	<p><b>Basic:</b> FVC, FEV1, PEF, FEF75, FEF2575, FET, FEV1/FVC, FEV6, FIVC, ELA, VC, EVC, IVC</p> <p><b>In addition with platinum version:</b> MVV</p>
<p>No</p>	<p>No</p>	<p>No</p>

# Comparison Matrix – Oximetry Parameters (Option)


	<b>Spirolab</b> 	<b>Spirodod</b> 	<b>Spirobank II Smart</b> 	
<b>OXIMETRY</b>	<b>Spot Test Parameters</b>	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia], Time-Tot, Time- misured	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90, T89, T88, T5, Index [12s], SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia], Time-Tot, Time- misured	SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean]
	<b>6 MWT Parameters</b>	No	O2-Gap, Estimated distance, Distance walked, Predicted distance [Min, Standard], TΔ2% [SpO2≥2%], TΔ4% [ΔSpO2≥4%], Time [Rest, Walking, Recovery], Desaturation Area/ Distance Optional data entry: Borg Dyspnea [Baseline, End, Change], Borg Fatigue [Baseline, End, Change], Arterial blood pressure [Systolic Diastolic], Oxygen administered, SpO2/BPM (Med. Min. Max. In. Fin.), T90, T89, T88, T87, SpO2/BPM Events.	No
	<b>Sleep Test Parameters</b>	No	SpO2 Events, Pulse Rate Events [Bradycardia, Tachycardia] Desaturation index (ODI), Desaturation [Mean Value, Mean duration Longest duration, Nadir Peak], ΔSpO2 [Min Drop, Max Drop], Total Pulse Variations, Pulse Rate Index, Time NOD(4%, 89%, 90%), SpO2/BPM (Med. Min. Max. In. Fin.),	No
	<b>Memory Pulse Ox</b>	900 Hours Pulse-Oximetry	900 Hours Pulse-Oximetry	900 Hours Pulse-Oximetry

MIR products comply with the latest ATS/ERS standardization of spirometry (September 2019 update), Volume accuracy  $\pm 2.5\%$  or 50 ml

Spirobank II Basic 	Minispir 	Minispir Light Post BD 
No	No	No
No	No	No
No	No	No
No	No	No

MIR products comply with the latest ATS/ERS standardization of spirometry (September 2019 update), Volume accuracy  $\pm 2.5\%$  or 50 ml

# Comparison Matrix – Spirobank Smart and SmartOne

	Spirobank Smart 	Spirobank Oxi 	SmartOne 	SmartOne Oxi 		
DEVICE	Dimensions	1,93x4,29x082"(49x109x21mm)	1,94x4,29x082"(49x109x21 mm)	1,93x4,29x082"(49x109x21mm)	1,93x4,29x082"(49x109x21mm)	
	Display	No	No	No	No	
	Weight	2,14 Oz (60.7 g)	2,14 Oz (60.7 g)	2,14 Oz (60.7 g)	2,14 Oz (60.7 g)	
	Carrying Case	N/A	N/A	N/A	N/A	
	Device Type	Smart	Smart	Smart	Smart	
	Real Time PC	No	No	No	No	
	Real Time Smartphone	Yes	Yes	Yes	Yes	
	Power Supply	2 batteries AAA 1,5V	2 batteries AAA 1,5V	2 batteries AAA 1,5V	2 batteries AAA 1,5V	
	Battery Charger	N/A	N/A	N/A	N/A	
	Thermal Printer	No	No	No	No	
SENSOR	Connectivity	Bluetooth 5.0	Bluetooth 5.0	Bluetooth 5.0	Bluetooth 5.0	
	Memory on Device	No	No	No	No	
	Pulse-Oximetry	No	Yes	No	Yes	
	Sensor Type	Turbine	Turbine	Turbine	Turbine	
	Disposable	Yes	Yes	No	No	
	Reusable	Yes	Yes	Yes	Yes	
	APP	App Name	MIR Spirobank	MIR Spirobank	MIR SmartOne	MIR SmartOne
		Android	Yes	Yes	Yes	Yes
		iOs	Yes	Yes	Yes	Yes
		Memory Spiro on App	Yes	Yes	Yes	Yes
Memory Oxi on App		No	Yes	No	Yes	
BT to Printer	Yes	Yes	Yes	Yes		
PARAMETERS	Parameters Spiro	PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FEF25, FEF50	PEF, FEV1, FVC, FEV1/FVC, FEF2575, FEV6, VEXT, DTPEF, FEF75, FEF25, FEF50	PEF, FEV1	PEF, FEV1	
	Parameters Oxi	No	SpO2 (%), Pulse (BPM) Plethysmographic curve	No	SpO2 (%), Pulse (BPM) Plethysmographic curve	
	Symptoms scoring	Yes	Yes	Yes	Yes	

MIR products comply with the latest ATS/ERS standardization of spirometry (September 2019 update), Volume accuracy  $\pm 2,5\%$  or 50 ml

## Consumables/ Accessories





**Reusable Turbine**  
Reusable turbine with mesh.

**Code:** 910002  
**MIR Model:** All professional use Spiro



**Single patient reusable turbine with reusable mouthpiece**  
Reusable turbine, compatible with reusable bacterial/viral filter and mouthpiece.

**Code:** 910013  
**MIR Model:** Spirobank Smart, Smart One



**Paper adult disposable mouthpiece**  
Disposable, individually packed paper adult mouthpiece (CE marked).

**Code:** 910300\_B  
**MIR Model:** All Spiro



**Reusable mouthpiece**  
Plastic adult reusable mouthpiece.

**Code:** 910307  
**MIR Model:** All Spiro



**Plastic paediatric reusable mouthpiece**  
Plastic paediatric reusable mouthpiece.

**Code:** 910310  
**MIR Model:** All Spiro



**Bacterial/viral filter**  
Bacterial/viral filter, disposable, packed in individual bag.

**Code:** 910306  
**MIR Model:** All professional use Spiro



**Paper roll for printer**

Standard thermal paper roll for printer.

**Code:** 910350

**MIR Model:** Spirolab

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**Plastic noseclip**

Plastic noseclip.

**Code:** 910322

**MIR Model:** All Spiro

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**Calibration syringe 3L**

3L calibration syringe.

**Code:** 919000

**MIR Model:** All professional use Spiro

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**Oximetry finger sensor**

Reusable, adult.

**Code:** 919024

**MIR Model:** All professional use Spiro

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**Oximetry finger sensor**

Reusable, paediatric 5–45 kg.

**Code:** 939005

**MIR Model:** All professional use Spiro



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MIR reserves the right to modify  
the technical characteristics  
at any time