MIR
MEDICAL INTERNATIONAL RESEARCH

Spirometry, Oximetry and MedTech solutions

www.spirometry.com
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

100

countries
in the world

Experience

30

years
of experience
in Spirometry

Patents

8

exclusive
international
patents

Research

16%

annual turnover
invested in **R&D**

Professional Use
Products

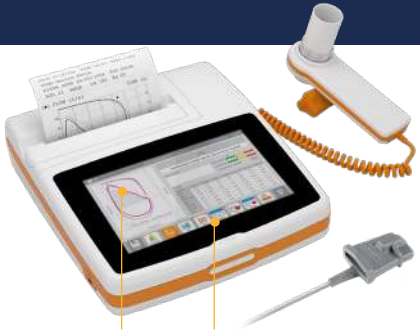
Spirolab
Spirodoc
Spirobank II Smart
Spirobank II Basic
Minispir
Minispir Light

PROFESSIONAL

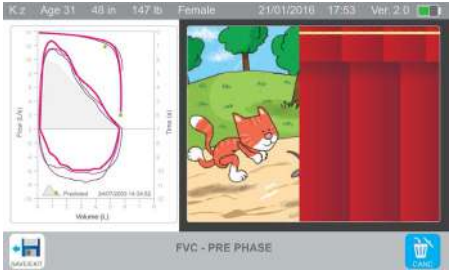
Spirolab™

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

* with Oximetry option



7" LCD Color Touchscreen



Pediatric incentive available on display

Fast operating system and data entry

Real-time tests

GLI predicted sets

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

Triaxal 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**

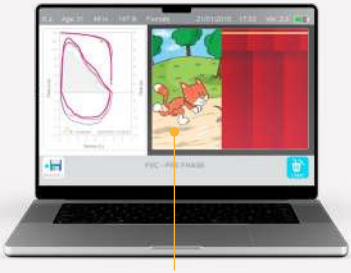
Spirometry test: FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison with a wide range of selectable parameters

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, FEF25–75, 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

- 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

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, PRE/ POST Bronchodilator comparison

macOS Windows

MIR Spiro

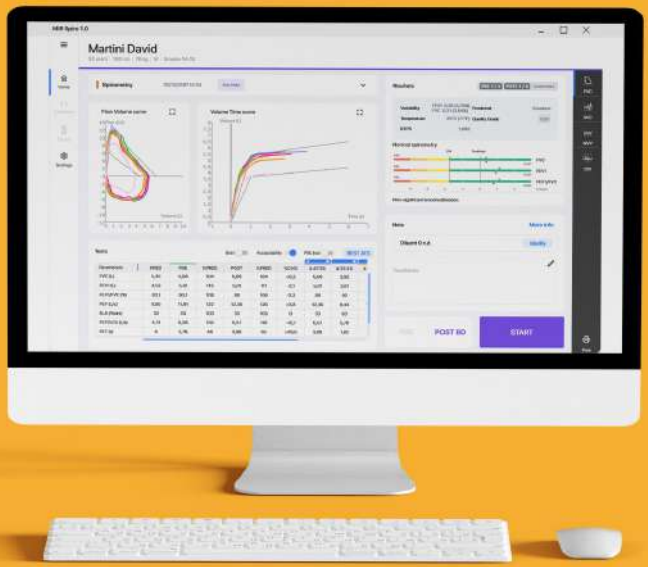
A completely innovative software for Spirometry and Oximetry

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 **wide 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 interoperbility** 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!

macOS Windows

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	✗	✓

CONSUMABLES/ACCESSORIES

FlowMIR

Disposable Turbine Flowmeter MIR exclusive product International patent

FlowMIR Dispensers (60 pcs)

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 ±2,5% OR 50 ML

- Comfortable Packaging
- No Calibration needed
- ATS/ERS Compliant for accuracy
- Singularly Tested and Packed
- No Cross Contamination
- Not affected by Vapour Condensation
- Eliminates staff clean-up time
- No Antibacterial Filter
- Not affected by Ambient conditions
- No Sterilisation
- Always 100% accurate and hygienic
- 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

Bluetooth SMART

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

Addictional features Spirobank Oxi:

Innovative reflectance Pulse Oximetry Sensor (Touch)

Real-Time plethysmoghaphic 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

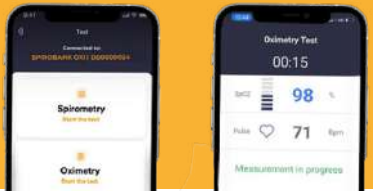
GET IT ON Google Play

Download on the App Store

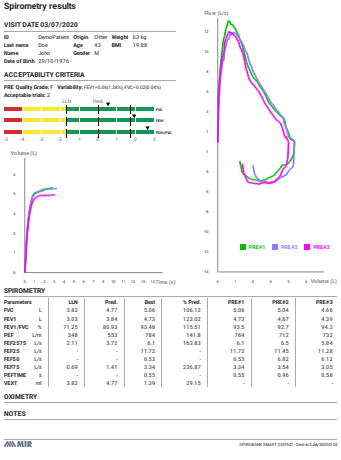
android iOS

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

VISIT DATE 03/07/2020

ID DemoPatient Origin Other Weight 63 kg
Last name Doe Age 42 BMI 19.88
Name John Gender M
Date of Birth 29/10/1976

ACCEPTABILITY CRITERIA

PRE Quality Grade: F Variability: FEV1 =0.0kl(1.39%), FVC=0.03l(0.94%)
Acceptable trials: 2

LLN Pred
FVC
FEV1
PEF/FVC

Volume (L)
Time (s)

Flow (L/s)
PRE#1 PRE#2 PRE#3
Volume (L)

SPIROMETRY

Parameters		LLN	Pred.	Best	% Pred.	PRE#1	PRE#2	PRE#3
FVC	L	3.82	4.77	5.06	106.12	5.06	5.04	4.66
FEV1	L	3.03	3.84	4.73	123.02	4.73	4.67	4.39
FEV1/FVC	%	71.25	80.93	93.48	115.51	93.5	92.7	94.2
PEF	L/m	348	553	784	141.8	784	712	732
FEF25-75	L/s	2.31	3.72	6.1	163.83	6.1	6.5	5.84
FEF25	L/s	-	-	11.72	-	11.72	11.45	11.28
FEF50	L/s	-	-	6.53	-	6.53	6.82	6.12
FEF75	L/s	0.69	1.41	3.34	236.87	3.34	3.54	3.05
PEFTIME	s	-	-	0.55	-	0.55	0.96	0.58
VEXT	ml	3.82	4.77	1.39	29.15	-	-	-

OXIMETRY

NOTES

MIR

Always up-to-date

GET IT ON Google Play
Download on the App Store

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

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 plethysmoghaphic curve on Smartphone and Tablet

reddot design award

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

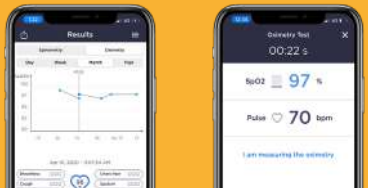
Google Play

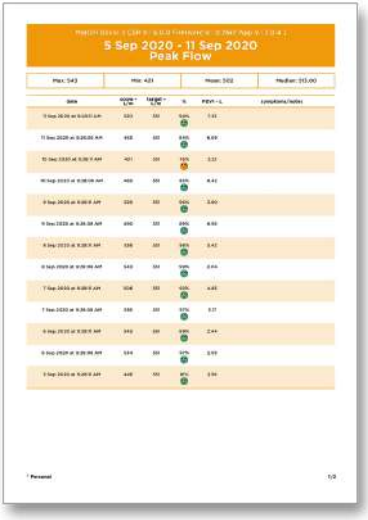
App Store

android iOS

Smart One App

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





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, 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

GET IT ON Google Play

Download on the App Store

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**!

SDK android SDK iOS

MIR SDK

Software Development Kit (SDK) for iOS and Android
Develop your own Spirometry and Oximentry 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 Oximentry 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

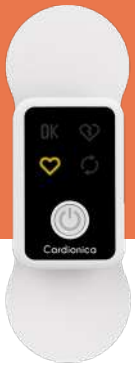
✓ **Always Up-To-Date**
Subscribe and join MIR Developer Program, receive SDK updates and MIR developer badge

Our new business: Cardiology

Cardionica

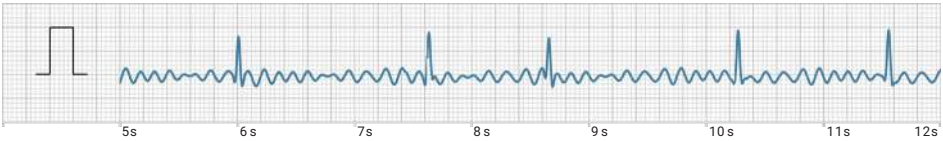
PERSONAL

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 
DEVICE	**Dimensions**	8.6x8.3x2'' (220x210x51 mm)	4.2x2.4x1.0'' (101x48x16 mm)	6x2x1'' (160x55x25 mm)
	Display	7''	3''	2,5''
	Weight	51 Oz (1450 g)	4 Oz (116 g)	5 Oz (140 g)
	Carrying Case	Included	Included	Included
	Device Type	Desktop	Pocket Size	Pocket Size
	Real Time PC	Yes	Yes	Yes
	Real Time Tablet	No	No	Yes
	Power Supply	Rechargeable battery	Rechargeable battery	Rechargeable battery
	Battery Charger	Included	Not included	Not included
	Thermal Printer	Internal	No	No
	Connectivity	USB	USB, Bluetooth 2.1	USB, Bluetooth 4.0
	USB to Printer	Yes	No	No
	Post BD	Yes	Yes	Yes
	Memory Spiro	10.000 tests	10.000 tests	10.000 tests
	Pulse - Oximetry	Optional	Optional	Optional
SENSOR	**Sensor Type**	Turbine	Turbine	Turbine
	Disposable Sensor	Yes	Yes	Yes
	Reusable Sensor	Yes	Yes	Yes
SOFTWARE	**Software name always included**	MIR Spiro	MIR Spiro	MIR Spiro
	USB to PC	Yes	Yes	Yes
	Bluetooth to PC	Yes	No	Yes

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

Comparison Matrix – Spirometry Parameters

	Spirolab 	**Spirodoc** 	**Spirobank II Smart** 
STAND ALONE	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, tI, tE, VT/tI, tE/tTOT, MVV (measured), MVV (calculated)	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, IC, ERV, IRV, Rf, VE, VT, tI, tE, VT/tI, tE/tTOT, MVV (measured), MVV (calculated)	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, tI, tE, VT/ tI, tE/tTOT, MVV (measured), MVV (calculated)
PC WITH MIR SPIRO (WIN/MAC)	**Basic:** 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, FEF7585, Extr. Vol, VC, EVC, IVC, IC, VC, ERV **In addition with platinum version:** FEV3, FIV1, FIV1/FIVC, PIF, FEV3/FVC, PIF, FEV2, FEV2/ FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV05 (RFEV), TV, VE, RR, tI, tE, TV/tI, tI/Ttot, IRV, te/ti, VTTI, MV,MVV	**Basic:** 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 **In addition with platinum version:** 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, tI, tE, TV/tI, tI/Ttot, IRV, te/ti, VTTI, MV,MVV	**Basic:** 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 **In addition with platinum version:** FEV3, FIV1, FIV1/FIVC, PIF, FEV3/FVC, PIF, FEV2, FEV2 /FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV05 (RFEV), TV, VE, RR, tI, tE, TV/tI, tI/Ttot, IRV, te/ti, VTTI, MV,MVV
IPAD WITH MIR SPIRO APP	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 ± 2,5% or 50 ml

Spirobank II Basic 	**Minispir** 	**Minispir Light Post BD** 
FVC, FEV1, FEV1%, PEF, FEF25–75, FET, Extrap. Volume, Lung Age, VC, IVC, IC, ERV	No	No
Basic: FVC, FEV1, FEV1%, PEF, FEF25–75, FET, Extr. Vol, Lung Age, VC, IVC, IC, ERV **In addition with platinum version:** MVV	**Basic:** FVC, FEV1, PEF, FEF75, FEF2575, FET, FEV1/FVC, FEV6, FEV1/FEV6, FEF25, FEF50, FIVC, FEV1/VC, ELA, MVV(cal), PEFTime, FEV05, FEV05/FVC, FEV075, FEV 075/FVC, FEF7585, Extr. Vol., VC, EVC, IVC, IC, VC, ERV **In addition with platinum version:** FEV3, FIV1, FIV1/FIVC, PIF, FEV3/ FVC, PIF, FEV2, FEV2/FVC, FIF25, FIF50, FIF75, R50, FEV1/PEF (EI), FEV1/FEV05 (RFEV), TV, VE, RR, tI, tE, TV/tI, tI/Ttot, IRV, te/ti, VTTI, MV,MVV	**Basic:** FVC, FEV1, PEF, FEF75, FEF2575, FET, FEV1/FVC, FEV6, FIVC , ELA, VC, EVC, IVC **In addition with platinum version:** MVV
No	No	No

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

Comparison Matrix – Oximetry Parameters (Option)

		Spirolab 	**Spirodoc** 	**Spirobank II Smart** 
OXIMETRY	**Spot Test Parameters**	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]
	6 MWT Parameters	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
	Sleep Test Parameters	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
	Memory Pulse Ox	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 ± 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 ± 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
	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	**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 ± 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

Plastic noseclip
Plastic noseclip.

Code: 910322
MIR Model: All Spiro

Calibration syringe 3L
3L calibration syringe.

Code: 919000
MIR Model: All professional use Spiro

Oximetry finger sensor
Reusable, adult.

Code: 919024
MIR Model: All professional use Spiro

Oximetry finger sensor
Reusable, paediatric 5–45 kg.

Code: 939005
MIR Model: All professional use Spiro

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