MT 10 - HANDHELD IMPEDANCE TYMPANOMETER

- **33665 MT10 - HANDHELD TYMPANOMETER**
- **33666 MT10 - HANDHELD TYMPANOMETER WITH IPSI-REFLEX**

Professional handheld tympanometer for setting fast and reliable testing in an easy and cost effective way.

Objective analysis
Fast and easy to operate and provides objective measures that cannot be obtained by otoscopy alone.

Easy and fast tympanograms
Results can be obtained with little efforts and with no response required from the patient. This is especially beneficial when dealing with difficult-to-test patients or small children.

Clinical application
Suitable for diagnostic use as tympanometer and (33666 only) reflex responses are all recorded with great detail. You can detect otitis media (a major cause of temporary or permanent hearing impairment in children), a perforated eardrum, cholesteotomas and certain neurological disorders. You can also check tympanostomy tubes and follow up on post medical treatments.

Ipsilateral Acoustic Reflex (33666 only)
Four different reflex tests at 500, 1,000, 2,000, 4,000 Hz may be performed per ear using either fixed or automatic intensity selection. Actual reflex characteristics are displayed on the screen.

30 patients in memory
Can hold test results of up to 30 patients, allowing to screen a large group of patients and print out the data at a later time.

PC-integration with optional infrared USB interface and software. Full data-transfer to PC

- **33667 INTERFACE USB ADAPTER AND SOFTWARE BY IRDA PORT**

33669

Interacoustics

Supplied with handle, set of 139 disposable ear-tips (mixed sizes) 4x1.5 V battery and manual in GB, DE, FR, IT, ES, SE, GR, PT, DK, FI, CZ, PL, LT, EE, HU, NL, NO, IS, RO, MK.

- -400 to +200 daPa
- ipsi-reflex (33666 only)
- 30 patient memory
- PC integration

The MT10 is ergonomic to hold but also offers the possibility of using the included handle to make it even more stable and lightweight as it can rest on your arm during the measurement.

Size: 19x8x4 cm excluding probe (length with probe 22.5 cm)
Weight 285 g without battery

- **33668 BET55 SET OF DISPOSABLE EAR-TIPS - box of 139 mixed sizes**
- **33669 SANIBEL MPTII PORTABLE THERMAL PRINTER**
- **33670 THERMAL PAPER ROLLS - box of 3**

TECHNICAL SPECIFICATIONS

Tympanometry		Data management	
Analysis performed:	Peak compliance; peak pressure, gradient; equivalent ear canal volume	Data storage:	30 records. Any recording can be stored once the tympanogram is viewed
Probe tone:	226 Hz	Data held:	Patient Initials, Tympanogram and Reflex graphs and analysis for Left and/or Right Ear, Time and Date of recording, which ears were tested, whether or not the record has been printed and sent to a PC, parameters printed and/or sent to a PC, parameters used for analysis
Pressure levels:	+200 daPa to -400 daPa		
Ear volume measurement range:	0.2 ml to 5 ml		
Sweep speed:	Typically 200-300 daPa/sec; depending on ear & cavity volume		
Pressure limits (safety shut off):	+600 to -800 daPa	**Other data**	
Reflex measuremets (33666 only)		Internal backup:	>30 days without main batteries fitted
Measurement mode:	ipsilateral	Battery Lifetime:	Approx. 400 tests (Alkaline AA batteries)
Reflex tone levels:	500 Hz, 1 kHz, 2 kHz, 4 kHz	Supported printer:	Martel MCP8830 or Sanibel MPTII
Four reflex levels:	100 dB with 5 dB or 10 dB steps; 95 dB, 90 dB or 85 dB with 5 dB steps	Interface:	Infra-red, IrDA hardware, 9600 baud
Reflex analysis:	Reflex pass/refer at each level tested; Maximum amplitude of each reflex (seen on printed report and PC report); Pressure at which reflex was performed	Information printed:	Space for patient and clinician's details, Tympanogram analysis parameters, Tympanogram, Reflex analysis parameters, Reflex graph, S. N. of device, Last and Next Due Calibration dates
		Safety standards:	IEC 60601-1. EMC: IEC 60601-1-2
		Impedance standard:	IEe 60645-5, Type 2 Tympanometer

PA5 PEDIATRIC PORTABLE AUDIOMETER

Interacoustics

- **33601 PA5 AUDIOMETER**
- **33602 TDH39 AUDIOMETRIC HEAD PHONE**

Paediatric portable audiometer with air conduction, free-field and visual stimulation capabilities. By means of a headphone it can be also used as a regular screening audiometer for adults. PA5 helps doctors in evaluating the auditory behaviour in neonates and infants till 24 months by means of specific tests:

Auropalpebral Reflex (APR) test
APR test is a startle reflex of the eyelid elicited by relatively strong sounds that can be performed on neonates from the day of birth. It is not based on co-operation with the newborn child.

Conditioned Orientation Response (COR) test
Based on the "Orientation Reflex", a natural reflex movement elicited by sound or visual stimulation. If the visual stimulation elicits a reflex which is conditioned by a tone, the child will look towards the visual stimulation as soon as the tone is heard. If the conditioning is effective the child will look in the direction of the sound source even before the visual stimulation is presented.

Visual Reinforcement Audiometry (VRA) test
VRA test is an extension and modification of COR, where the cooperation with the child is less important. Not only the sound

localisation orientation reflex are accepted but also four other reactions: reflex reactions (body and face), search reactions, orientation reactions and spontaneous reactions.

Reflex audiometry and maturation of auditory response tests
Different stimuli are presented in terms of intensity, frequency, duration, direction of sound in order to elicit proper reactions like waking-up, crying, astonishment, direct sound localization.

Supplied with GB manual and quick guide (GB, US, DE, FR, SE, IT, PT, DK, FI, ES, GR, CZ, PL, NL, NO, EE, HU, SL).

33601

TECHNICAL SPECIFICATIONS

Frequencies:	500, 1,000, 2,000, 3,000, 4,000 Hz	
Stimuli:	Warble tone, NB and WN	
Intensities:	Distance 50 cm:	20/30-80dB HL in 10dB steps, for Warble Tone and WN 10/20-70dB for NB
	Distance 16 cm:	increases intensity by 10 dB
Dimensions - weight:		LxWxH: 25x7x5 cm - 360 g
Power supply:	3AA batteries (included)	

BOEL STYLE PEDIATRIC AUDIOLOGY TEST CE

- **33599 GIMA AUDIOTEST - pediatric audiology test for early detection of childhood deafness**

The Boel test is a unique screening tool that tests the hearing abilities and child's response to a sound stimulus, even at an early age (between 6 to 10 months). GIMA audiotest is based on the BOEL test both for the ergonomics (designed to be held in the palm of the hand not visible to the child) and the standard sound of the bells. The two sound stimuli emitted by the audiometer reproduce a dull
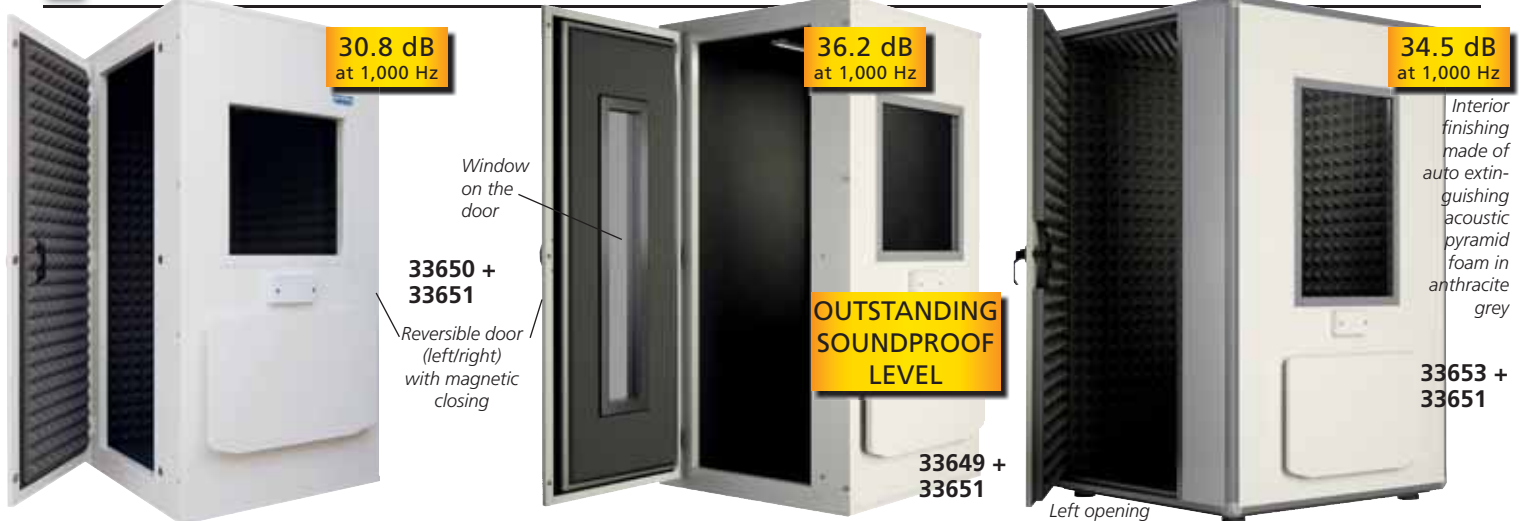
low-frequency tone located at about 125-150 Hz and an acute high-frequency tone located at about 5.0-5.1 kHz in exactly the same way as the bells of the Boel test (amplitude 86dBA; 96dBA). Testing the child's response to these highly significant thresholds. Easy to use, with only two buttons for the selection of two frequencies, lightweight and battery-powered.

33599

Class I medical device according to 93/42/EEC. Made in Italy.

AUDIOMETRIC BOOTHS - CONFORM TO 93/42/CEE - 2007/47/CE - Class I

30.8 dB at 1,000 Hz

36.2 dB at 1,000 Hz

34.5 dB at 1,000 Hz

Window on the door

33650 + 33651

Reversible door (left/right) with magnetic closing

Interior finishing made of auto extinguishing acoustic pyramid foam in anthracite grey

33653 + 33651

OUTSTANDING SOUNDPROOF LEVEL

33649 + 33651

Left opening

• **33650 PRO 25 - 96x96x197 cm**
Portable, lightweight, sound proof booth, easy to install in few minutes. Interior finishing made of acoustic pyramid foam in anthracite grey. External finishing made of highly resistant, fire proof washable panel. Module for cable connection included. Made in Italy.
• **33651 TABLE - 79x50 cm**

• **33649 PRO 28F - 96x96x197 cm**
New compact booth with an outstanding level of sound proofing and excellent acoustic thanks to innovative materials. Internal finishing made of fire proof, washable and very resistant fabric. Internal ventilation system. External finishing made of highly resistant, fireproof, washable panel. Module for cable connection included. Made in Italy.
• **33651 TABLE 79x50 cm**

• **33654 PRO 30 - 107x107x242** cm**
• **33653 PRO 30 - 132x132x242** cm**
• **33655 PRO 30 - 211x107x242** cm**
• **33656 PRO 30 - 211x211x242** cm**
• **33657 PRO 30 - size on request**
available any size from 1x1 to 3x3
Range with different sizes, with high noise reduction and ventilation system. External finishing made of highly resistant, fireproof, washable panel and aluminium frame. Module for cable connection included. Made in Italy.
• **33651 TABLE 79x50 cm**
• **33652 RAMPS for wheelchair access**

ACOUSTIC INSULATION							
Hertz		125	250	500	1000	2000	4000
PRO 25	dB	18.0	16.0	26.7	30.8	28.8	30.9
PRO 28	dB	21.7	25.6	32.6	36.2	34.0	41.1
PRO 30	dB	23.4	24.1	27.8	34.5	31.3	36.4

TECHNICAL SPECIFICATIONS						
	33650	33649	33654	33653	33655	33656
External size (cm):	96x96xh 197	96x96xh 197	107x107xh 242**	132x132xh 242**	211x107xh 242**	211x211xh 242**
Internal size (cm):	81x81xh 180	81x81xh 173.5	92x92xh 201	117x117xh 201	196x92xh 201	196x196xh 201
Door size cm:	55xh 168	55xh 168	75xh 200	75xh 200	75xh 200	75xh 200
opening:	Left/Right	Left/Right	Right*			
Windows size cm:	56xh 56	56xh 56	56xh 88			
material:			2 - crystal insulating safety glass			
Wall thickness cm:	7.5	7.5	7.5	7.5	7.5	7.5
Weight (kg):	198	233	255	317	356	552
Ventilation:	no	yes	yes	yes	yes	yes
Tested noise reduction dB at 1,000 Hz:	30.8	36.2	34.5			
Internal illumination power V-Hz:	230 - 50/60		86-265 - 50/60			
Norms:			Class I Medical Devices European Directive 93/42 CEE			
*Left opening available on request		**Height includes air ventilation system (25 cm)				

Cable connection module

STANDARD ACCESSORIES
- module for silent audiometer cable connection
- internal illumination
- ventilation system (PRO 28, PRO 30 only)
- ISPM-15 wooden box for transport
- manual: GB, IT

SINGLE USE TYMPANOMETER EARTIPS - FOR MOST BRANDS

Sanibel™*

SANIBEL™ ear tips were designed for use with acoustic immittance instruments and otoacoustic emission system. Made of a soft and sticky biocompatible material, these ear tips greatly improve the ease of obtaining and keeping a good seal, allowing the tester to quickly move on to other tasks. Available in different sizes, with different shapes (mushroom and flanged ear tips for infants). The complete range makes it possible to accomodate all ear canal shapes and sizes. All Sanibel™ ear tips are latex free.

GIMA code	SANIBEL™ AZE MUSHROOM EAR TIPS	Minimum order
53500	Ear tip 6 mm - violet	bag of 100 pcs
53501	Ear tip 7 mm - yellow	bag of 100 pcs
53502	Ear tip 9 mm - green	bag of 100 pcs
53503	Ear tip 10 mm - light blue	bag of 100 pcs
53504	Ear tip 11 mm - white	bag of 100 pcs
53505	Ear tip 13 mm - yellow	bag of 100 pcs

VERIFIED COMPATIBILITY FOR SANIBEL™ AZE	
Grason-Stadler®	Tympstar™
Interacoustics®	AT235™ & AT235h™ with black probe tip
	AA222™ & AA220™ with black probe tip
	old MT10™
Maico®	MI24™, MI26™, MI34™, MI44™ with black probe tip
Kamplex®	All tympanometers

GIMA code	SANIBEL™ ADI FLANGED INFANT EAR TIPS	Minimum order
53515	Ear tip 3-5 mm - red	bag of 100 pcs
53516	Ear tip 4-7 mm - blue	bag of 100 pcs
53517	Ear tip 5-8 mm - yellow	bag of 100 pcs

GIMA code	SANIBEL™ ADI MUSHROOM EAR TIPS	Minimum order
53520	Ear tip 7 mm - blue	bag of 100 pcs
53521	Ear tip 8 mm - yellow	bag of 100 pcs
53522	Ear tip 9 mm - green	bag of 100 pcs
53523	Ear tip 10 mm - red	bag of 100 pcs
53524	Ear tip 11 mm - blue	bag of 100 pcs
53525	Ear tip 12 mm - yellow	bag of 100 pcs
53526	Ear tip 13 mm - green	bag of 100 pcs
53527	Ear tip 14 mm - red	bag of 100 pcs

VERIFIED COMPATIBILITY FOR SANIBEL™ ADI	
Amplivox®	Otowave™ with clear (Type 1) probe
Interacoustics®	AT235™ & AT235h™ with clear probe tip adapter
	AA222™ & AA220™ with clear probe tip adapter
	Eclipse™ and MT10™ with clear probe tip, Titan™
Maico®	MI24™, MI26™, MI34™, MI44™ with clear probe tip adapter
	easyTimp™ - Otowave™ - Ero-scan plus™ - easyScreen™
MEDRx®	Otowave™
Grason-Stadler®:	Corti™

SCREENING AUDIOMETER

2 lines of 24 characters backlit display

53550

Weight: 720 g
Dimension: 252x170x65 mm
Operating power: 100-240 V, 50-60 Hz

• 53550 AMPLIVOX 116 SCREENING AUDIOMETER - air conduction
Combines style and functionality, the ideal manual screening audiometer for primary care, school and workplace. It offers a comprehensive air conduction threshold facility at very affordable price.
- pure tone, continuous, pulsed and warble tones
- threshold retention function
- talk forward function
- 125 to 8,000 Hz test frequency
- -10 to 100 dBHL
Supplied with audiometric headset, patient response switch, audiogram cards (box of 50) main power adaptor, carrying case and manual (GB, IT, ES, on request FR, SE, PT).
• 53555 PELTOR INSULATION HEADBAND
• 53556 AUDIOGRAM CARDS - box of 50

53555

DIAGNOSTIC AUDIOMETER

2 lines of 24 characters backlit display

53551

Weight: 735 g
Dimension: 270x175x68 mm
Operating power: 100-240 V, 50-60 Hz

• 53551 AMPLIVOX 240 DIAGNOSTIC AUDIOMETER - air, bone, masking
Cost-effective diagnostic audiometer, ideal for desktop and mobile use.
- USB connectivity
- threshold retention function
- single, pulsed or warble tone preset
- 11 test frequencies: 125 to 8,000 Hz (AC), 250 to 8,000 Hz (BC)
- -10 to 120 dBHL range (AC), -10 to 70 dBHL (BC), 90 dBHL max (250 to 4,000 Hz) insert masking output
- automatic AC test functionality
Supplied with audiometric headset, bone conductor headset, patient response switch, audiogram cards (box of 50), main power adaptor, carrying case and manual (GB, IT, ES, on request FR, SE, RU, PT).
• 53555 PELTOR INSULATION HEADBAND
• 53556 AUDIOGRAM CARDS - box of 50
• 53557 INSERT FOR MASKING

53557

SCREENING DIAGNOSTIC AND CLINICAL 2 CHANNEL AUDIOMETERS

Dimension: 390x260x105 mm
Weight: 2.4 kg without accessories
Power: 100-240 V, 50/60 Hz

CE 0318

LCD alphanumeric backlight
2 lines of 16 characters

Programme to personalize the audiometer according to the needs of the user

• 33623 SIBELSOUND 400-A SCREENING AUDIOMETER - air conduction
• 33624 SIBELSOUND 400-AOM DIAGNOSTIC AUDIOMETER - air + bone + masking
• 33626 SIBELSOUND 400-SUPRA CLINICAL AUDIOMETER - air + bone + mask + supraliminar tests + W50 software
The SIBELSOUND 400 is a two-channel digital audiometer based on DSP processing. This audiometer is designed for quick and easy audiometric exploration of hearing thresholds and screening tests, such as suprathreshold pure tone tests (FOWLER-ABLB, TONE DECAY, WEBER, LUSCHER, ...).
- **Air conduction** (TDH 39): 125 - 8,000 Hz or HF: 8,000 - 20,000 Hz with optional HDA 200
- **Levels:** AC (-10 to 120 dB HL) / BC (-10 to 70 dB HL) / speech (-10 to100 dB HL) free field (-10 to 80 dB HL)
- **Masking levels** (manual or synchronized): NBN AC (-10 to 100 dB HL) NBN BC (-10 to 70 dB HL) white & speech (-10 to 100 dB SPL)
- **Tone:** continous, pulse, anternate, amplitude modulation.
- **Level increases:** 5 (A-AOM), 1 or 5 (SUPRA)
- **Frequency precision**: ±1%/ level precision ±2% db SPL
- **Automatic calculation of hearing loss and diagnosis** (COUNCIL, IMSS MEXICO, ELI, SAL, KLOCKHOFF, MOH, OTHERS ...)
- Direct USB **connection to PC to W50 audiometry software** for viewing, storage, transmission, analysis and introduction of audiometric tests (Windows® environment).
• 33628 INTERCOM KIT (headphone + microphone)
• 33621 INSULATION DEVICE for air conduction phone
• 33629 AUDIOMETRY SOFTWARE W50

FREQUENCIES AND LEVELS												
STANDARD FREQUENCY	125	250	500	750	1,000	1,500	2,000	3,000	4,000	6,000	8,000	HZ
MUSICAL FREQUENCY	131	262	523	–	1,047	–	2,093	–	4,186	–	8,372	HZ
Air conduction (THD 39)	80	100	120	120	120	120	120	120	120	110	110	dB HL
Bone conduction (B 71)	–	50	60	60	70	70	70	70	70	55	–	dB HL
Free field	–	70	80	80	80	80	80	80	80	80	–	dB HL
MASKING NOISE												
Narrow bandwidth AC	60	80	100	100	100	100	100	100	100	100	90	dB HL
Narrow bandwidth BC	–	50	60	60	70	70	70	70	70	–	–	dB HL
White AC						100						dB SPL
Speech						100						dB SPL
LOGO-AUDIOMETRY												
Air conduction					100							dB SPL
Free field				80 dB at 1m from the patient								dB SPL
Minimum levels												
All options	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	-10	dB HL

Communication system:
- *Print directly to a USB printer or connect to W50 Microsoft Windows Audiometry Software.*
Audiometry software:
It allows to manage patient database, display graphically results, compare tests,... It also allows to input data performed by other audiometers, show automatic diagnosis (council IMSS,...). Compatible Windows 10

SIBELSOUND 400 FEATURES			
	A	AOM	SUPRA
Audiometry type	4 screening	3diagnostic	2 clinical
Air conduction TDH 39	•	•	•
Bone conduction B71		•	•
Masking by white narrow band & speech noise		•	•
Sisi test			•
Supraliminar tests			•
Speechaudiometry + Intercom kit	optional	optional	•
Musical frequencies			•
Intercom data base	150 tests	1,000 tests	1,000 tests
USB connectivity	•	•	•
W50 audiometry software	optional	optional	•
User manual English, Italian	•	•	•
(available on request French or Spanish)			

PC OR PC-iPAD CONTROLLED PORTABLE AUDIOMETERS

PICCOLO PORTABLE AUDIOMETERS
Piccolo is a basic diagnostic audiometer offering air, bone and speech audiometry functions.
Piccolo can be controlled either from a computer running Windows or, for the first time ever, from an iPad®.
Lightweight, compact design, powerful, user-friendly software and Noah connectivity combine to make Piccolo the ideal choice for professionals on the move.
- three different models available:
Basic (AC only) for Pc use
Plus (AC/BC) for Pc or Pc-iPad® use (Aero version)
Speech (AC/BC/Live Speech) for Pc-iPad® use
- iPad® control (includes Aero option, 33616, 33618 only) through the Maestro App. Wireless Bluetooth connectivity
- computer control through the dedicated Noah or Daisy module. USB connection port

- small and light weight
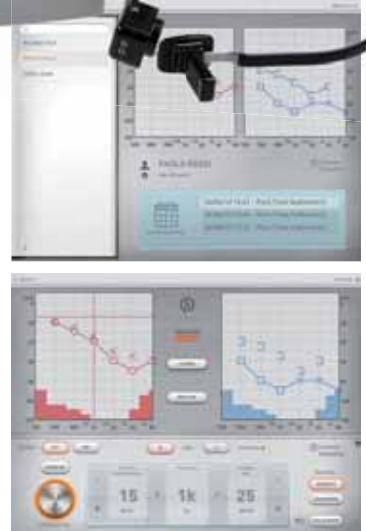- power supply through the USB connection, when controlled by computer.
Made in Italy.

Software language:
GB, FR, IT, ES, DE, PL, PT, RU.
CD manual and quick guide
GB, FR, IT, ES, DE, PL, PT, NL.

TECHNICAL SPECIFICATIONS

	Piccolo Basic	Piccolo Plus	Piccolo Speech
Type of device	Pc control	PC (33615) or Pc and iPad® control (33616)	Pc and iPad® control
Class EN 60645-1, ANSI S3.6	4-screening	3-diagnostic	3-diagnostic
Output	AC	AC, BC	AC, BC, Live Speech
Masking	NBN	NBN	NBN, WN, SN
Warble tone	Yes	Yes	Yes
Pulsed tone	0.5 Hz, 1 Hz, 2 Hz	0.5 Hz, 1 Hz, 2 Hz	0.5 Hz, 1 Hz, 2 Hz
Frequency range	125 - 8,000 Hz	125 - 8,000 Hz	125 - 8,000 Hz
Maximum output intensities	AC: -10 to 120 dB HL	AC: -10 to 120 dB HL	AC: -10 to 120 dB HL
		BC : -10 to 80 dB HL	BC: -10 to 80 dB HL
Attenuator step	5 dB	5 dB	5 dB
Automatic audiometry	HW auto threshold	HW auto threshold	HW auto threshold
Speech audiometry	No	No	Yes
Speech inputs	-	-	EXT1, EXT2, Mic
Talk over	External microphone	External microphone	External microphone
Connection to PC	USB [driverless]	USB [driverless]	USB [driverless]
Controlling software	├──────── Daisy or Noah with Maestro module ────────┤		
Connection to iPad	-	Bluetooth 4 (only 33616)	Bluetooth 4
Controlling app	-	Maestro (App Store)	Maestro (App Store)
Dimensions	├──────── 16x16x3cm (16.3x6.3x1.2 in) ────────┤		
Weight	300 g (10.6 oz)	300 g (10.6 oz)	300 g (10.6 oz)
Operating voltage	100-240 V, 50/60 Hz	100-240 V, 50/60 Hz	100-240 V, 50/60 Hz

GIMA code	SCREENING AND DIAGNOSTIC AUDIOMETERS	Management
33613	Piccolo Basic screening audiometer - air + mask	PC
33615	Piccolo Plus diagnostic audiometer - air + bone + mask	PC
33616	Piccolo Plus Aero diagnostic audiometer - air + bone + mask	PC + iPad
33618	Piccolo Speech Aero diagnostic audiometer - air + bone + live speech* + mask	PC + iPad

Speech material IT standard, available on request FR.

STANDARD ACCESSORIES
- TDH-39 supra-aural headphones
- B71 bone vibrator (33615/6/8 only)
- Patient response switch
- Clip-on microphone for operator-to-patient communication
- Jack/jack cable (Ø 3.5 mm) - 33618 only
- Inventis Daisy Patient Record Manager, with Daisy Maestro module
- Noah Maestro module
- USB connection cable
- Medical grande power supply
- User Manual

BELL PLUS DIAGNOSTIC AUDIOMETER

• 33635 BELL PLUS DIAGNOSTIC AUDIOMETER - air + bone + mask + software DAISY - MAESTRO
Bell is a basic diagnostic audiometer performing fast and accurate air and bone conduction threshold examinations. Simple operation, fast and reliable automatic examination mode, user-friendly interface and easy portability make Bell the ideal instrument for private clinics, multi-specialist clinics and occupational medicine application.
- pure tone audiometry in AC and BC
- hughsone-Westlake auto threshold test
- colour graphic display·
- internal memory for 100 patients
- cost effective solution

- supplied with air conduction phone and vibrator for bone conduction.
Made in Italy.
Maestro Software interface
The Maestro module is the software interface of Bell Plus audiometer. When it is connected to PC via USB you can see real time progress of the exam on the display and then download the data. It also allows full control of the audiometer from computer.

Manual:
GB, FR, IT, ES, DE, PT.

STANDARD ACCESSORIES
- TDH-39 supra-aural headphones
- B71 bone vibrator
- Patient response switch
- Plastic cover sheet
- Medical grade power supply
- User Manual

TECHNICAL SPECIFICATIONS
Type of device	Hybrid audiometer
Class (EN 60645-1, ANSI S3.6)	3 diagnostic
Output	AC, BC
Masking	NBN, WN
Insert masking earphone	Yes
Warble tone	Yes
Pulsed tone	0.5 Hz, 1 Hz, 2 Hz
Frequency range	125 - 8,000 Hz
Maximum output intensities	AC: -10 to 120 dB HL
	BC: -10 to 80 dB HL
Attenuator step	5 dB
Automatic audiometry	HW auto threshold
Talk over	Internal or external microphone
Display type	Colour graphic
Display size resolution	4.3", 480x272
Internal memory	100 patients
Operating voltage	100-240 V, 50/60 Hz
Dimensions - weight	32x32x9 cm (12.6x12.6x3.5 in) - 1.8 kg (4.0 lbs)

33635

SPIROTEL SPIROMETERS - BLUETOOTH OPTION

- **33471 SPIROTEL with WINSPIROPRO software**
- **33472 SPIROTEL with Bluetooth and WINSPIROPRO software**
- **33473 SpO₂ PROBE - adult - optional**
- **33410 MOUTHPIECES int Ø 2,8 x ext Ø 3, h 6.5 cm**

LCD backlit touch screen display 160x80 pixel

A pocket laboratory which integrates 4 devices in one:
- spirometer with touch screen display
- triaxial accelerometer with motion analysis for therapy monitoring
- intelligent 3D oximeter with on screen results (with 33473)
- e-diary for home care symptom control.
Compatible with Qualcomm Life 2 net Hub

Manual and internal software languages: GB, FR, IT, DE, ES.

Size: 74x88x38 mm - Weight: 151 g

CE 0476

TECHNICAL SPECIFICATION	
Flow sensor:	Bi-directional digital turbine
Flow range:	±16L/s - ±3% or 50 mL Flow accuracy:±5% or 200 mL/s
Dynamic resistance:	<0.5 cm H₂O/L/s Temperature sensor: Semiconductor (0-45°C)
Measured parameters:	Reading on spirometer: FVC, FEV1, PEF, FEF 25/75
	Reading on PC with Winspiro PRO: same parameters as Spirobank G
SpO₂ range:	0-100% ±2% (50-100% SpO₂)
Pulse rate range:	20-254 BPM ±2BPM or 2%
Data transmission:	USB 2.0 or Bluetooth
Memory capacity:	Up to 10,000 tests - 300 hours oximetry (only with 33473)
Power supply:	Lithium-ion 3.7 V, 1100 mAh rechargeable, for 40 hours measurements

DISPOSABLE AND RE-USABLE TURBINES FOR MIR SPIROMETERS

- **33507 DISPOSABLE TURBINE WITH INTEGRATED MOUTHPIECE - box of 60**
Single patient use. Low cost and high accuracy. Individually packed to guarantee maximum hygiene. Easy to replace, no calibration needed.
Compatible with GIMA codes: 33509, 33511-14, 33518-22, 33527-29, 33530, 33532, 33534.
- **33526 RE-USABLE TURBINE - bayonet**
Easy to replace, no calibration needed. Compatible with GIMA codes: 33511-14, 33518, 33520-22, 33528-32, 33534.

33526   **33507**

MOUTHPIECES FOR MOST SPIROMETER BRANDS

Paper mouthpieces (disposable) and plastic mouthpieces (re-usable for most brands of spirometers and peak flow. Paper mouthpieces are packed in individual transparent pouch.

CE 0476

Dispenser of 100

33432

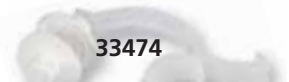| GIMA PAPER MOUTHPIECES					
GIMA code	Sizes - cm Ø int x ext x h	Suitable for	Compatibility		Minimum order
			GIMA codes	Other brands	
33410	2.8x3x6.5	adult	33431, 33433, 33471-2, 33512-14, 33518-22, 33528-32, 33534	Micromedical Vitalograph, Mir Ferraris (Koko legend) Cardiette (Pneumos 300)	box of 500
33897					dispenser of 100
33411	2.0x2.2x6	paediatric		Micromedical Vitalograph, Mir	box of 250
33412	Plastic adapter		33411	Mir	-
33506	2.6x2.8x6.5	adult	33480, 33484-7	Sibel	box of 100
33494	1.9x2.1x7	paediatric	33486, 33487	Sibel*	box of 100
33890	2.5x2.7x7	adult	-	Fukuda Sangjo, Thor	dispenser of 100
33892	2.8x3.05x7	adult	-	Cosmed (Pony model)	dispenser of 100
33898	2.8x3.05x7	adult	-	Cosmed (Pony model)	box of 500
33895	3.03x3.3	adult	-	Sensormedics, Microcard	box of 500
33899	2.42x2.6	adult	-	Sorin Lifewatch, Fukuda Denshi	box of 500
GIMA PLASTIC MOUTHPIECES					
33432	1.7x2.1x5 2.7x3x5	adult/ped	33431, 33433	Ferraris	-
33691		adult	33682-4, 6, 8	Thor	box of 10

*Gimaspir A/B need adapter 33495

SPIROMETRY PAPERS

- **33492 MIR SPIROLAB PAPER - roll 112mm x 25m**
Suitable also for SIBEL DATOSPIR 120 B, C, D, DATOSPIR Touch and GIMASPIR 120 models B, C, D.
- **33893 COSMED PONY PAPER - roll 57 mm x 11 m - box of 5 rolls**
- **33894 COSMED PONY FX PAPER - roll 112 mm x 13m - box of 25 rolls**
Compatible also with Fukuda Spirosift.
- **33250 THERMAL PAPER - roll 58 mm**
Suitable for SIBEL DATOSPIR 120 A and GIMASPIR 120-A.

NOSECLIP

33474

- **33474 NOSE CLIP**

BACTERIAL FILTER

- **33525 BACTERIAL FILTER - box of 50 for MIR, Medisoft spirometers**
- **33557 SPIROGUARD BACTERIAL FILTER - box of 50**

Compatibility of Spiroguard
Erich Jaeger Gmbh	Masterlab and Masterscreen
Ferraris Medical - P.K. Morgan	Autolink-Benchmark Transflo and USA Transfer System
Sensormedics	2200 - 2400 - 2450
Vitalograph	Wedge-Bellow-Alpha and Escort Spirometers

BACTERIAL FILTER - MOUTHPIECE FOR MOST SPIROMETER BRANDS

BACTERIAL FILTER - MOUTHPIECE
Disposable filter with anatomical shape to prevent bacterial and viral contamination. Easy to use, direct connection to spirometer one side, patient mouthpiece other side. Suitable for most of spirometers and devices. Class II A. Individually packed in trasparent bag. Made in Italy.

CE 0476

BACTERIAL FILTERS - MOUTHPIECES - box of 100			
GIMA code	Size - cm Ø int x ext	Compatibility with	
		GIMA codes	Other brands
33884	2.75x3	33341, 33433, 33471-2, 33509-14, 33518-22, 33528-32, 33534	Micromedical, Vitalograph, Mir, Ferraris (koko legend), Cardiette (Pneumos 300)
33885	2.75x3.1	-	Cosmed
33886	2.95x3.4	-	Customed, Jaeger
33887	3.05x3.5	-	Sensormedics, BTL, Thor, Morgan, Chest, Microgard
33888	3.4x3.6	-	Medical Graphics
33889	2.5x2.7	-	Fukuda Sangjo

SMART ONE PEAK FLOW-FEV1

• 33681 SMART ONE® - Peak Flow and FEV1

Manual in GB, FR, IT, ES, DE, PT, PL, RU, TR, CN

Ideal for monitoring respiratory illnesses and in self management of Asthma, COPD, lung transplant care, cystic fibrosis and for use in clinical trials.
Peak flow and FEV1 on your smartphone
Simple handheld wireless device that can be easily connected via Bluetooth to iOS and Android smartphones and tablets.
App (GB, IT) with an exclusive incentive for adult and children based on exhaled flow and volume that gives accurate and helpful results.
Graphic trend of Peak Flow and FEV1
Measurements including option to flag any test session. Test results history with Peak Flow, traffic light health indicator, symptoms scoring and notes. Low battery consumption.
New turbine flowmeter with plastic mouthpiece
For personal use, easy to remove for cleaning and hygienic. Made in Italy.
• 33896 REUSABLE MOUTHPIECE - plastic - box of 10
• 33897 DISPOSABLE MOUTHPIECE - paper - box of 100

CE 0476
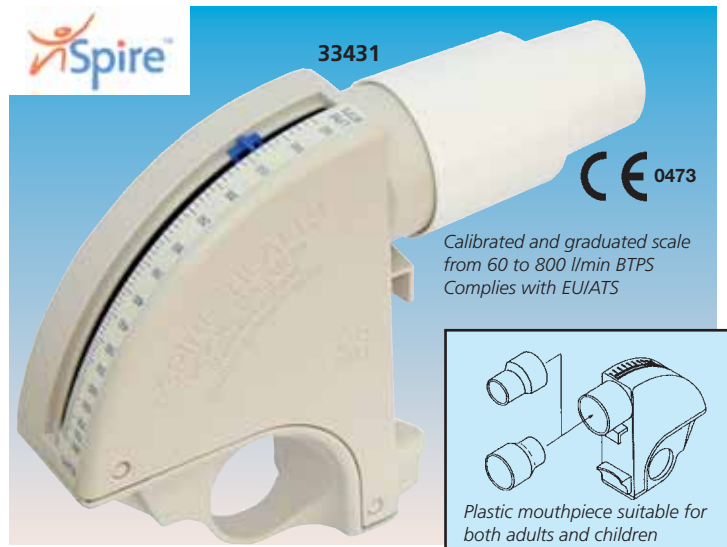FDA 510 (K)
Health Canada

33681

Graphic trends of Peak Flow and FEV1 which can be shared by email

TECHNICAL SPECIFICATION	
General	
Power supply:	2 batteries AAA 1.5 V included
Autonomy:	1,000 tests
Connectivity:	Low energy Bluetooth® 4.0
Size - weight:	49x109x21 mm - 61 g (batteries included)
Mouthpieces:	Ø 30 mm (1.18 inch)
Spirometry	
Flow sensor:	bi-directional digital turbine
Flow range:	±16 L/s Flow accuracy: ±5% or 200 mL/s
Volume accuracy:	±3% or 50 ml
Measured parameters:	FEV1, PEF
Memory capacity:	the application on the smartphone memorizes data

PEAK FLOW METERS

nSpire

33431

CE 0473

Calibrated and graduated scale from 60 to 800 l/min BTPS Complies with EU/ATS

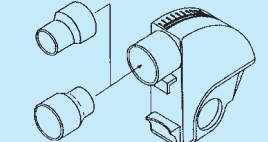*Plastic mouthpiece suitable for both adults and children*

• 33431 POCKET PEAK - standard 60-800 l/min - cream
• 33433 POCKET PEAK - low 50-400 l/min - yellow
The Pocketpeak Peak Flow Meter is designed to provide simple and reliable home asthma management.
Lightweight and easy to use, it provides accurate and reliable measurements over time.
It is easy to clean and features a universal mouthpiece.
The EU/ATS Scale Pocket peaks will not only comply with the new European Standards but also with ATS (American Thoracic Society) Standards.
Standards range pocket peak will cover 60-800 litres/min, low range will cover 50/400 litres/min.
Package includes multilingual directions for use and peak flow diary, all packed in a cardboard box. Made in USA.
Size 86x81x30 mm.
Weight 45 g. Standards: EN 13826:2003
• 33432 UNIVERSAL MOUTHPIECES - re-usable
In plastic, sterilizable, suitable both for adults and children.
• 33410 DISPOSABLE MOUTHPIECES - box of 500

LUNG EXERCISE DEVICE

600 cc per sec *900 cc per sec* *1200 cc per sec*

CE

Base and small balls made in non-toxic polypropylene. Central part made in copolymere/non-toxic polystyrene. Tube and mouthpiece made in polyethylene.

33442

• 33442 RESPIPROGRAM
Device to exercise the respiration through inspiration. The respiratory-exerciser Respiprogram helps the patient to recover the normal respiration after a chest or abdominal surgery.
The device is composed of: 1 base, 3 small balls different in dimension and colours, 1 transparent central part divided into 3 rooms, 1 tube and mouthpiece. Each unit packed in single box. Made in Italy. User manual: GB, IT.
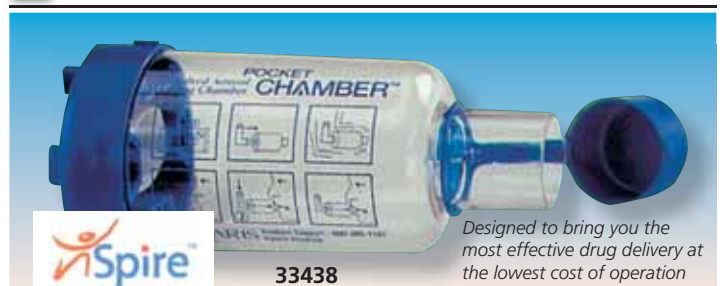**• 33445 TRI-BALL® - respiratory exerciser**
The respiratory-exerciser Tri-Ball® helps the patient to recover the normal respiration after a chest or abdominal surgery. Single patient. User manual in GB, FR, DE, IT, ES.
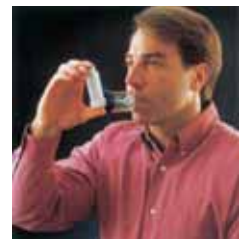
33445

600/900/1200 cc per sec

AEROSOL HOLDING CHAMBER

POCKET CHAMBER

nSpire

33438

Designed to bring you the most effective drug delivery at the lowest cost of operation

• 33438 POCKET CHAMBER
Now you can manage your asthma conveniently and effectively with a truly pocket-sized device, proven as effective as MDI chambers nearly twice its size.
The Pocket Chamber delivers a high concentration of respirable aerosol, to help provide relief from asthma symptoms while capturing large particles and reducing unwanted side-effects.
- whistle alerts patients if inspiratory rate is exceeded
- effective, affordable alternative to expensive aerosol delivery
- flexible port accepts virtually any MDI's mouthpiece

TECHNICAL SPECIFICATION	
Size: 108 x 47.5 mm	Volume: 110 ml
Mouthpiece: 22 mm external Ø	Weight: 33 g
Materials: All Latex Free Silicone	Warranty: One year
User Manual: GB, FR, IT, ES, DE, PT, NL, GR, TR	Made in USA

SPIROBANK II SMART - PORTABLE SPIROMETER WITH SPO$_2$ OPTION

• 33512 SPIROBANK II SMART + WINSPIROPRO SOFTWARE
Spirometer with 10.000 tests memory capacity, monochromatic LCD display, 6 keys membrane keypad. Battery power supply (3,7 V-1100 mA lithium) with an autonomy of approx. 50 hours of continuous use, rechargeable with USB port.
- cable (USB 2.0) or wireless (Bluetooth 4.0) connection
- internal temperature sensor for automatic BTPS conversion
- high resolution graphic display
- automatic record of a whole spirometry session including best test
- USB cable, carrying case, CD manual (GB, FR, IT, ES, DE, PT) re-usable turbine and software included. Selectable internal software (GB, FR, IT, ES, DE, PT)

• 33514 SPIROBANK II SMART + WINSPIROPRO SOFTWARE + OXYMETER
Same as above with more than 300 hours of oximetric test records (SpO$_2$ % and pulse frequency tests).
Measured parameters: min, max and average SpO$_2$ %, min, max and average pulse frequency, SpO$_2$ total events, test duration, bradycardia events (<40 BPM), tachycardia events (>120 BPM), T90% (time passed with SpO$_2$ ≤89%), T89% (time passed with SpO$_2$ ≤ 88%)
• 33525 ANTIBACTERIAL FILTER - box of 50 disposable
• 33507 DISPOSABLE TURBINE with mouthpiece - box of 60
• 33526 REUSABLE TURBINE
• 33410 MOUTHPIECES int. Ø 2.8 x ext. Ø 3, h 6.5 cm

WinspiroPRO software functions:
(GB, FR, IT, DE, ES, PT, PL, SE, NL, LV, CZ, TR, RU, CN, JP)
- on-line PC connection with icon interface
- real time Flow/Volume and Volume/time curves
- bronchial challenge with FEV1 dose-response
- paediatric incentive animations
- integration with EPR systems
- Lung Age Estimation
- data and graphs export also via e-mail

*PC system requirements:
XP, Seven, Vista, 8, 10*

Weight 140 g
Size 55x160x25 mm
160x80 pixel display

33514

Made in Italy

PC connection via USB or Bluetooth®

510 (K)

0476

Health Canada

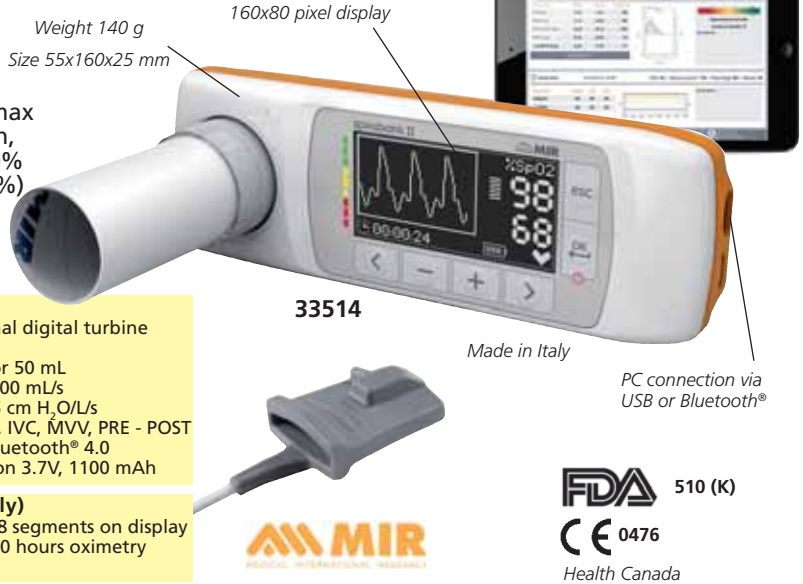| TECHNICAL SPECIFICATIONS - SPIROMETRY	
Measured parameters FVC, FEV1, FEV1/FVC%, DTPEF, FEV 0.5, FEV0.5/FVC%, FEV0.75/FVC%, FEV2, FEV2/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%, FEF75%, FEF25-75%, FEF75-85%, FET, Vext, Lung Age, EVOL, FIVC, FIV1, PIF, FIV1/FIVC%, FIF25%, FIF50%, FIF75%, R50, PIF, IRV, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MVV	Flow sensor bi-directional digital turbine Flow range ±16L/s Volume accuracy ±3% or 50 mL Flow accuracy ±5% or 200 mL/s Dynamic resistance <0.5 cm H$_2$O/L/s Available tests: FVC, VC, IVC, MVV, PRE - POST Connectivity USB 2.0, Bluetooth® 4.0 Power supply Lithium-Ion 3.7V, 1100 mAh

TECHNICAL SPECIFICATIONS - OXIMETRY (33514 only)	
Measurement method: red and infrared absorption SpO$_2$ range: 0-99% ±2 % between 70-99% SpO$_2$ Pulse rate range: 18-300 BPM ±2 BPM or 2%	Signal quality indicator: 0-8 segments on display Memory capacity: up to 300 hours oximetry

SPIROBANK II BASIC

0476

Size: 160x55x25 mm only 140 g including battery

WinspiroPRO (GB, FR, IT, DE, ES, PT, PL, SE, NL, LV, CZ, TR, RU, CN, JP). See above specifications

33510

System requirements: Microsoft Windows Vista, 2000, XP, ME, Seven, 8, 10

• 33510 SPIROBANK II BASIC + WINSPIROPRO software
Complete and rapid pocket spirometer for the General Practitioner to carry out spirometry testing anywhere.
No calibration required, use disposable turbine FlowMIR with integrated mouthpiece (33507) or reusable turbine (33526).
- measures the most important spirometric parameters including: **FVC, VC, IVC, IC, ERV, FEV1, FEV1%, PEF, FEF 25-75, FET, EVOL, TEST POST BD**
- **traffic lights** for immediate test interpretation
- memory up to **10,000 tests**
- rechargeable **long life battery** (40 hours continuous operation)
- real time tests via **USB**
- selectable display language and CD manual (GB, IT, ES, FR, DE, PT)
Supplied with Winspiro PRO software, USB cable, 1 disposable turbine in a carriying bag.
• 33507 FLOWMIR DISPOSABLE TURBINE with integrated mouthpiece - box of 60 - spare
• 33526 REUSABLE TURBINE - optional

TECHNICAL SPECIFICATION	
Power supply: 3.7 V, 110 mA lithium battery , USB rechargeable	
Keypad: 6-key membrane keyboard	Display: LCD monochrome 160x80 pixel
Flow range: + 16 l/s	Flow accuracy: ± 5% or 200 ml/s whichever is greater
Max volume: 10 l	Volume accuracy: ± 3% or 50 ml whichever is greater
Data transmission: USB 2.0	Made in Italy

SPIROBANK G WITH SOFTWARE

0476

Graphic display (128x48 pixels) with user friendly icons

• 33518 SPIROBANK G + WINSPIROPRO software
- stand alone spirometer with PC online operation
- 6,000 spirometry in memory
- high legibility graphic display
- FVC, VC, IVC, MVV, PRE-POST BD
- advanced spirometry test interpretation
- Lung Age Estimation (ELA)
- ready for **Telemedicine** applications
- internal temperature sensor for automatic BTPS
- upgradable internal software via internet
Standard package includes USB cable, pouch, noseclip, battery, re-usable turbine and Winspiro PRO software.

33518

Supplied with CD manual (GB, FR, IT, ES, DE, PT) Internal software (GB, FR, IT, ES, DE, PT, PL)

TECHNICAL SPECIFICATION	
Measured parameters: FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/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	
Temperature sensor: semiconductor (0-45 °C)	
Flow sensor: bi-directional digital turbine	
Max volume: 10 l	
Flow range: ± 16 l/s	
Volume accuracy: ± 3% or 50 ml, whichever is greater	
Flow accuracy: ± 5% or 200 ml/s, whichever is greater	
Dynamic resistance at 12 l/s: <0.5 cm H$_2$O/l/s	
Power supply: 9V DC (PP3 battery)	
Weight: 180 g (with battery)	Dimensions: 162x49x32 mm
Made in Italy	
WinspiroPRO PC system requirements	
(GB, FR, IT, DE, ES, PT,PL, SE, NL, LV, CZ, TR, RU, CN, JP)	
- Microsoft Windows: Vista, 2000, XP, Me, Seven, 8	
- Screen resolution: 1024x768	- Hard disk space: 160 MB

Internal software and CD manual: GB, FR, IT, ES, DE, PT (only manual)

SPIROMETER + OXIMETER + 3D ACCELEROMETER IN ONE UNIT

SPIRODOC® - SPIROMETER AND OXIMETER

- **33532 SPIRODOC SPIROMETER + SOFTWARE WINSPIRO PRO - bluetooth**
- **33533 SPIRODOC OXIMETER + SOFTWARE WINSPIRO PRO**
- **33534 SPIRODOC SPIROMETER + OXIMETER + SOFTWARE - bluetooth**

One touch laboratory for respiratory analysis suitable for professional and personal use.

Complete spirometer ATS/ERS compliant
Specialist-level analysis, screening and Home-care monitoring. It has been developed with various operation modes: "advanced" parameters for the specialist, "reduced" set of parameters for screening as well as a "simplified" version for Home-care operation. FVC, VC, IVC, MVV, PRE-POST. Precise spirometry interpretation including post bronchodilator. All tests are automatically memorized. Automatic BTPS conversion. Memory capacity: 10.000 tests. Wide selection of predicted values.

Intelligent pulse oximeter with on-screen results
Simple, clear SpO_2 and Pulse Rate measurements with plethysmographic curve. During the single six-minute walk test (6 MWT), Spirodoc® estimates the level of oxygen therapy required by the patient. Spirodoc® carries out sleep desaturation studies and memorizes events as well as body position.

3D Accelerometer with motion analysis
Spirodoc® is the first 3D Oximeter® incorporating a triaxial motion sensor to correlate the saturation level (%SpO₂) with physical activity (walk counter, movement analysis and VMU).

Home-care symptoms diary
Fast on-screen symptoms entry. Touch screen with settable questions and automatic answer recording for homecare patient use (eDiary).

High performance PC software for spirometry and oximetry
All tests memorized in Spirodoc® are automatically downloaded into WinspiroPRO and a patient data card is created with a preview of the spirometry curve. WinspiroPRO can easily be connected to a database, EPR, hospital or occupational health system. This software also gives trend graphs of any parameter. All stored tests and curves of every patient can be reviewed on a single page
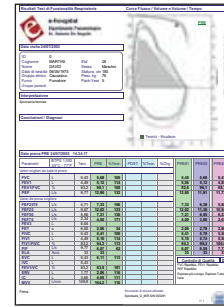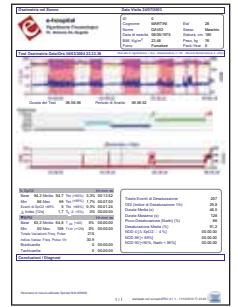
33534

Easy touch-screen display

Three phase report of 6 minutes walk test: baseline, walk, recovery

Spirometry report

Nocturnal oximetry report with desaturation analysis

and the results, including oximetry tests, can be compared. Supplied with reusable turbine.
Multilanguage software: GB, FR, IT, ES, DE, PT, PL, NL SE, CZ, LV, TR, RU, CN, JP.

TECHNICAL SPECIFICATIONS

Central unit
Display: LCD backlit touch screen display 128x64 pixels
Power supply: Lithium ion 3.7 V, 1100 mA rechargeable battery with 50 hours measurement back up
Accelerometer: Triaxial ±2 g, 400 Hz sampling
Dimension and weight: central unit 101x48x16 mm, 99 g removable turbine head: 46x47x24 mm, 17 g
Spirometry
Flow sensor: Bi-directional digital turbine
Flow range: ±16 L/s
Volume accuracy: ±3% or 50 mL, whichever is greater
Flow accuracy: ±5% or 200 mL, whichever is greater
Dynamic resistance at 12 L/s: <0.5 cm $H_2O/L/s$

Temperature sensor: semiconductor (0-45°C)
Spirometer measured parameters
FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%, FEF75%, FEF25%-75%, FET, Estimated Lung Age, Extr. Vol., FIVC, FIV1, FIV1/FIVC%, PIF, VC, IVC, IC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MW measured, MW calculated
Oximetry
SpO_2 range: 0 -100%, ±2% (50-100% SpO_2)
Pulse rate range: 20-254 BPM, ±2 BPM or 2%
Pulseoximeter measured parameters
SpO_2 [Baseline, Min, Max, Mean], Pulse rate [Baseline,

Min, Max, Mean], T90% [SpO_2<90%], T89%[SpO_2<89%], T88% [SpO_2<88%], T5% [ΔSpO_2>5%], Δindex [12s], SpO_2 events, Pulse rate events [Bradycardia, Tachycardia], Step counter, Movement [VMU], Recording time, Analysis time
Sleep analysis
Body position, SpO_2 events, Desaturation index (ODI), Desaturation [Mean Value, Mean duration, Longest duration, Nadir Peak], ΔSpO_2 [Min Drop, Max Drop], Total Pulse Variations, Pulse Rate Index, NOD89% [SpO_2<89%; >5min], NOD4% [SpO_2 Basale-4%; >5min], NOD90% [SpO_2<90%; Nadir<86%; >5min]

MINISPIR® LIGHT AND MINISPIR®-USB

- **33527 MINISPIR with Winspiro Light**

Minispir Light measures 10 essential parameters for a diagnostic spirometry: FEV6, FVC, FEV1, FEV1%, PEF, FEF25/75%, FIVC, Lung Age, VC, IVC. Pediatric incentives. Flow/Volume loop and Volume/Time curve. Spirometry test interpretation. Temperature sensor for BTPS conversion. Minispir Light meets the requirements of integrated healthcare platforms and tablet applications. For use with FlowMir disposable turbine only (33507).
Winspiro Light is an intuitive and efficient software, for complete diagnosis included in Minispir Light.

FOR ESSENTIAL RESPIRATORY TESTING

- **33528 MINISPIR with Winspiro PRO**
- **33529 MINISPIR+OXYMETER with Winspiro PRO**

Real time Flow/Volume loop and Volume/time curve with PRE/POST comparison. Advanced spirometry test interpretation. Pediatric incentive animations. Lung Age. Bronchial provocation test including new Mannitol protocol with FEV1 response curve. Temperature sensor for BTPS conversion. Supplied with reusable turbine.

32 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.
CD manual GB, FR, IT, ES, DE, PT.

FOR COMPLETE RESPIRATORY ANALYSIS

33529 *PC not included*

Winspiro PRO 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.

PC SYSTEM REQUIREMENTS FOR WINSPIRO LIGHT/PRO
Microsoft Windows: XP, Vista 32/64 bit, Seven 32/64 bit, 8
Screen resolution: 1024x768   Hard disk: 128 MB (better 256 MB)
USB socket
Multilanguage: GB, FR, IT, ES, PT, DE, PL, SE, NL, CZ, LV, TR, RU, CN, JP

TECHNICAL SPECIFICATIONS MINISPIR/MINISPIR LIGHT

Temperature sensor: semiconductor (0-45°C)
Flow sensor: bi-directional digital turbine
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 cm $H_2O/L/s$
Communication port: USB
Power Supply: line powered from USB port
Dimension: 50x142x26 mm
Weight: 65 g

TECHNICAL SPECIFICATIONS MINISPIR SpO_2

SpO_2 range: 0-99%
SpO_2 accuracy: ± 2% tra 70-99% SpO_2
Pulse Rate range: 30-300 BPM
Pulse Rate accuracy: ± 2 BPM or 2%
Measured parameters
SpO_2 [Baseline, Min, Max, Mean],
Pulse Rate [Baseline, Min, Max, Mean],
T90 [SpO_2<90%], T89 [SpO_2<89%], T88 [SpO_2<88%], T5 [ΔSpO_2>5%], Δ Index [12s],
SpO_2 Events, Pulse Rate Events [Bradycardia, Tachycardia]

GIMA code	SPARE PARTS AND ACCESSORIES
33507	Flowmir disposable turbine with integrated mouthpiece - box of 60
33410	Adult mouthpieces Ø ext 3 cm - box of 500 pieces (only for 33526)
33526	Reusable turbine (only for 33528-9)

SPIROLAB III - DIAGNOSTIC SPIROMETER WITH SPO₂ OPTION

PEDIATRIC INCENTIVE SYSTEM

HIGH DEFINITION LCD

DATABASE FOR 6,000 TESTS

USB

LCD Colour display 240x320 pixel, size 90x120 mm

Printer

ATS Certified

ERS Standard

Mini flowmeter

33521, 33522

Connection cable (33523-4)

Only 1.9 kg for truly portability

SpO₂ probe included with 33522

WinspiroPRO software included (GB, FR, IT, DE, ES, PT, CZ, SE, NL, PL, LV, TR, RU, CN, JP)

*Quality spirometry, precise measurement The proven MIR digital turbine flow sensor requires **no calibration** and complies with ATS 24/26 waveforms. Certified by Dr. Crapo at LDS Hospital, Salt Lake City - Utah*

FDA CE 0476

• **33521 SPIROLAB III - diagnostic spirometer with high resolution colour display, built-in printer and PC WINSPIROPRO software**
• **33522 SPIROLAB III same as 33521 with SpO₂**
A really complete spirometry system:
- FVC, VC with breathing pattern plus MVV tests with real time curves
- over 30 parameters with **automatic interpretation** and test quality control
  - PRE/POST bronchial response protocol with F/V loop comparison
  - up to 8 blows curve on one screen
  - internal database for about 6,000 complete tests
- predicted values with various authors
- rechargeable battery plus mains power 220 V, 50-60 Hz (110V on request)
- user-friendly keyboard with dedicated function keys plus alphanumeric data entry
- internal temperature sensor for automatic BTPS conversion
- free upgradable internal software from web, maintaining previously stored data
- selectable multilanguage internal software (GB, FR, IT). Possibility to order also with following internal languages: DE, ES, PL, PT, RU, CN, TR.
Finger Oximeter (33522 only)
- short or long term (overnight) SpO₂ and Pulse Rate measurements
- ODI, NOD, T90%, T89%, T88, T87%
- oximetry during exercise test
• **33410 ADULT MOUTHPIECES - Ø 3 cm ext - box of 500 pcs.**
 • **33492 THERMAL PAPER - 112 mm x 25 m**
• **33515 SpO₂ PROBE - adult - spare**
• **33516 SpO₂ PROBE - paediatric**
• **33525 ANTIBACTERIAL FILTER - disposable - box of 50 pcs.**
• **33507 DISPOSABLE TURBINE WITH INTEGRATED MOUTH-PIECE - box of 60**
• **33524 CONNECTION CABLE MINIFLOWER-SPIROLAB III (532370) - spare**
• **33523 CONNECTION CABLE MINIFLOWER-SPIROLAB and SPIROLAB II (532375) - spare**

TECHNICAL SPECIFICATIONS 33521-33522	
Flow/volume range:	± 16 l/s
Volume accuracy:	±3% or 50 ml
Flow accuracy:	±5% or 200 ml/s
Dynamic resistance:	<0.8 cm H_2O/l/s
Dimensions:	310x205x65 mm
Parameters:	FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%, FEV6, FEV1/FEV6%, PEF, FEF25-75%, FEF25%, FEF50%, FEF75%, FET, Vext, *FVC, *FEV1, *PEF, PIF, FIVC, FIV1, FIV1/FIVC%, VC, IVC, ERV, IC, FEV/VC%, VT, VE, Rf, Ti, Te, Ti/T-tot, VT/Ti, MVV *: Best value
PC System requirements: Windows 2000, ME, XP, Seven, Vista, 8.	
Made in Italy.	

STANDARD ACCESSORIES		
Carrying case	Software Winspiro PRO.	Nose clip
Battery charger	USB port and cable	Reusable turbine
1 roll thermal paper	CD manual: GB, FR, IT, ES, DE, PT	(33526)

SP-10 POCKET SPIROMETER

CE 0123

AVAILABLE WITH BLUETOOTH

33536

STANDARD ACCESSORIES
Internal lithium battery
USB cable
PC software (english language)
User manual: GB, IT, ES.

• **33536 SP-10 POCKET SPIROMETER**
• **33535 SP-10 POCKET SPIROMETER WITH BLUETOOTH**
Pocket, portable spirometer with large TFT screen to clearly display both numbers and flow charts.
Synchronously measure FVC, PEF, FEV1, FEV1%, FEF25, FEF2575, FEF75.
Support diagnosis evidence by volume and flow rate chart display. Built-in predicted values.
Built-in lithium rechargeable battery and battery power display.
Supplied with USB cable for PC connection, battery charger and software to calculate data and analyse trend.
• **33410 ADULT MOUTHPIECES - Ø 3 cm ext. - box of 500 pcs**

TECHNICAL SPECIFICATIONS
Max volume: 10 l
Flow range: 2 l/sec - 16 l/sec
Volume accuracy: ±3% or 50 ml whichever is greater
Flow accuracy: ±5% or 200 ml/sec whichever is greater
Parameters: FVC, FEV1, PEF, FEV1%, FEV25, FEF2575, FEF75
Made in PRC
CE 92/42 - EMC group I class B - protection type BF

SPIROLAB SPIROMETER: 7" TOUCHSCREEN AND SPO₂ OPTION

Miniflowmeter for reusable and disposable turbine (Ø 30 mm)

MIR MEDICAL INTERNATIONAL RESEARCH

CE 0476

FDA 510 (K)

Health Canada

33519

7" TOUCHSCREEN DISPLAY

PEDIATRIC INCENTIVE SYSTEM

DATABASE FOR 10,000 TESTS

USB 2.0, BLUETOOTH 2.1

• **33519 SPIROLAB® SPIROMETER WITH 7" TOUCHSCREEN**
• **33520 SPIROLAB® SPIROMETER WITH 7" TOUCHSCREEN AND SpO₂**
Fast, simple, durable diagnostic spirometer, made in Italy.
Unbeatable features
- FVC, VC, MVV, PRE/POST Bronchodilator comparison with a wide range of selectable parameters
- long life rechargeable battery
- colour Touchscreen 7" display
- direct connection to external USB Printer PostScript
- 10,000 Spirometry tests or 500 hours of oximetry recording
- wireless Real Time test on PC via Bluetooth®
- fast and silent built-in B/W printer with customizable printout format
- selectable internal software languages: GB, FR, IT, ES, DE, PT
Oximetry option
Available adult and pediatric reusable finger probe.
Fast and user friendly
Each function can be activated by a simple touch.
FlowMIR® disposable turbine - complies with ATS/ERS standard
Totally disposable (mouthpiece, turbine) guarantees 100% hygiene, no cross contamination. No calibration required. Suitable also for pediatric use without need of adaptor.

Each turbine is factory calibrated with a computerized system and is individually packaged in a clean room

33507

Suitable for children
Patented pediatric incentive directly on the screen.
WinspiroPRO®
High perfomances PC software for spirometry and oximetry with free update. Multilanguage software: GB, FR, IT, ES, DE, PT, PL, NL, LV, SE, CZ, RU, TR, JP, CN.

Summary of all tests carried out   *Printout: spirometry report*

GIMA code	MIR code	ACCESSORIES AND SPARES	Minimum order
33695	919024	SpO₂ probe - adult - spare	
33696	939006 + 919200	SpO₂ probe - paediatric	
33697	910595	Miniflowmeter with cable - spare	
33410	-	Adult mouthpiece - Ø 30 mm ext	box of 500
33492	-	Thermal paper - 112 mm x 25 m	-
33525	-	Antibacterial filter - disposable	box of 50
33507	910004	Disposable turbine with integrated mouthpiece	box of 60

TECHNICAL SPECIFICATIONS - OXIMETRY (33520 only)

SpO₂ range:	0-99%
SpO₂ accuracy:	± 2% between 70-99% SpO₂
Pulse Rate range:	18-300 BPM
Pulse Rate accuracy:	± 2BPM or 2% whichever is greater
Memory capacity:	up to 500 hours oximetry

OXIMETRY PARAMETERS (33520 only)

%SpO₂ and Pulse Rate (Min, Max, Average), Test duration, Total SpO₂ Events, T90% (SpO₂ time ≤89%), T89% (SpO₂ time ≤88%), T40 (Bradycardia duration with Pulse Rate <40 BPM), T120 (Tachycardia duration with Pulse Rate >120 BPM)

STANDARD ACCESSORIES

Carrying case	Software WinspiroPRO®
Battery charger	USB port and cable
1 roll thermal paper	SpO₂ adult sensor (33520 only)
Reusable turbine	CD manual: GB, FR, IT, ES, DE, PT
Nose clip	

TECHNICAL SPECIFICATIONS - SPIROMETRY

Power supply:	Rechargeable battery
Autonomy:	approx. 10 hours
Temperature sensor:	semiconductor (0-45°C)
Flow sensor:	bi-directional digital turbine
Flow range:	±16L/s
Volume accuracy:	±3% or 50mL
Flow accuracy:	±5% or 200mL/s
Dynamic resistance:	<0.5 cm H₂O/L/s
Connectivity:	USB 2.0, Bluetooth® 2.1
Display:	7" colour touch screen LCD, 800x480 resolution
Mouthpieces:	Ø 30 mm (1.18 inch)
Dimensions:	220x210x51 mm (8,66x8,26x2")
Weight:	1450 g (battery pack included) (3,1lb)
Electrical protection:	Class II
Norms:	Electrical safety standard EN 60601-1 Electromagnetic compatibility EN 60601-1-2

SPIROMETRY PARAMETERS

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).

WINSPIROPRO® REQUIREMENTS

Windows 2000, Xp, Vista (32/64 bit), 7 (32/64 bit), 8 and 8.1 (32/64 bit), 10 (32/64 bit). RAM 512 MB

ULTRASONIC, DISINFECTABLE SPIROMETERS

• **33682 OTTHON SPIROMETER US (English) + SOFTWARE**
• **33683 OTTHON SPIROMETER IT + SOFTWARE**
• **33684 OTTHON SPIROMETER OTHER LANGUAGES + SOFTWARE**
Pulmonary function diagnostics and monitoring spirometer
for use by general practitioners, respiratory physicians and
patients. Compact, mobile, affordable solution for screening
COPD (Chronic Obstructive Pulmonary Disease) and asthma.
- automated diagnostic interpretation
- voice and video explain use of device and communicate results
- battery or USB charger
- touchscreen, bright colour high resolution LCD display QVGA
(320x240 px), 16 M colours
- external printer connectivity
- automatic internal calibration
- flow tube disinfectable by cold sterilization
- power supply: USB 5 V or built in rechargeable battery
Internal software languages: GB, FR, IT, DE, ES, HU, AU, HR.
Voice languages available: US (English), AU, FR, IT, DE, ES, AT, HU.
Please indicate requested language with order.
Made in Europe.

Size: 35x120x120 mm
Weight: 300 g

CE 2409

33682/3/4

FVC, MW AND VC MEASUREMENT

Size: 40x60x150 mm
Weight: 300 g

33686

CE 2409

• **33688 SPIROTUBE PC SPIROMETER + SOFTWARE**
• **33689 SPIROTUBE B SHOCK AND WATER PROOF PC
SPIROMETER + SOFTWARE**
PC based pulmonary function diagnostics and monitoring
spirometer with ultrasonic Idegen™ respiratory sensor.
Suitable for screening COPD and asthma.
- automatic internal calibration
- tele-medical connection via internet
- plug & play USB PC connection detection
- easy upgrade, standard interfaces, XML, HL7
- long-term monitoring for life-long patient support
- pharmaceutical testing subsystem
- flow tube disinfectable by cold sterilization
Spirotube B Edition for harsh conditions
Features an exceptionally robust design for harsh condition
and heavy use.
Power supply: USB 5 V. Made in Europe.

• **33686 SPIROTUBE MOBILE EDITION BLUETOOTH SPIROMETER**
Pulmonary function diagnostics and monitoring spirometer
with Bluetooth communication interface and built in
rechargeable battery. Suitable for screening COPD and asthma.
- wireless connection to mobile phones, PDAs, android systems.
Real-time measurement with FVC curve visible on the mobile
screen
- plug & play USB connection to PC
- automatic internal calibration
- tele-medical connection via Bluetooth
- automated medical interpretation
- long-term monitoring for home care use
- pharmaceutical testing subsystem
- flow tube disinfectable by cold sterilization
- software can be freely downloaded
from Google Play Store
Made in Europe.

*Spirotube mobile edition
connects to Android
based systems turning
these devices into
respiratory diagnostic
stations*

Size: 27x60x150 mm
Weight: 300 g

CE 2409

WATER PROOF SHOCK PROOF

Waterproof

*Robust
silicone cover*

Shockproof

33688

STANDARD ACCESSORIES			
	33682/3/4	**33686**	**33688**
Thorsoft software	•		•
Plastic mouthpieces	•	•	•
Mini USB cable	•	•	
Cups for disinfection	•	•	•
Battery charger	•	•	
Bacterial filter	•		•
Carrying bag	•		
Paper manual (GB)	•	•	•
CD manual (GB, IT, ES, DE, HU)	•	•	•

TECHNICAL SPECIFICATIONS	
Flow measurement principle	Idegen™ multiple-path
Flow tube diameter	30 mm (OD)
Dead space	16.8 ml
Flow resolution	3 ml/s (33686), 8 mb/s (33682-4, 33688)
Flow precision	2% (33686, 33688), 3% (33682-4)
Flow range	±18 l/s
Connection to PC	USB

MEASURED PARAMETERS
FVC, -FEV*0.5, FEV*0.5/IVC, FEV*0.5/FVC,FEV*1.0/IVC, FEV*1.0/FVC, PEF, FEF*25-75%, MEF*75%,MEF*50%, MEF*25%, FET, MTT, FIVC, FIV*0.5, FEV1/FVC (Tiffeneau index) FIV*1.0, PIF, FIF*25-75%, IRV. ERV, TV, Breath rate value - Insp./Expi ratio: From 1:10 to 10:1

REGISTRATIONS
All spirometers are CE marked and registered in Indonesia,
Singapore, Hong Kong, Australia, New Zealand, Korea,
SaudiArabia.
THORSOFT - PULMONARY DIAGNOSTIC PC SOFTWARE
Standard medical interfaces (HL7, GDT, BDT, XML).
Automatic interpretation module.
Diagnostic decision support system (for general
practitioners and physicians)
Complete stress testing procedure
Languages: GB, FR, IT, DE, ES, SE, TR, RO, HU,
SL, CZ, HR, NL, KR, CN.

GIMA code	ACCESSORIES	Minimum order
33690	Instrumed disinfectant concentrate 1 l (Bactericidal, fungidal, virucidal, sporocidal , tubercolocidal)	
33691	Plastic mouthpieces	box of 10
33890	Disposable mouthpieces	box of 100
33692	Loki Green single use bacterial filter	box of 50
33505	Calibration syringe 3 l*	

* Ultrasonic spirometers do not need calibration. Syringe is only for check if requested by law.

SLEEP APNEA SCREEN METER

• 33676 SLEEP APNEA SCREEN METER
Suitable for people who have obstructive sleep apnea-hypopnea syndrome (OSAHS), chronic obstructive pulmonary diseases (COPD), asthma, vascular disease or people over 60 years old. For hospital and home use.
Features:
- wrist-design, small in volume and light in weight
- integrate multi-function in one device, convenient to know more physiological information
- displays SpO_2, PR, pulse sound, bar graph
- display of pulse and nasal airflow waveform
- alarm for low-power, finger-out and over-limit
- adjustable screen brightness
- real-time clock
- auto-power on/off
- multi-care record
- record data in continuous 20 hours
- upload data by USB to PC
- PC analysis software

33676

• 33677 RUBBER ADULT SpO_2 PROBE for day
• 33678 NON-WOVEN SpO_2 PROBE for night - bag of 2
• 34172 NASAL OXYGEN CANNULA

STANDARD ACCESSORIES	
Adult, Neonatal disposable SpO_2 probe	Adapter
Adult SpO_2 probe	USB cable
Software	Nose-oxygen tube
Manual (GB, IT)	

33676 CE 0123

TECHNICAL SPECIFICATIONS	
Nasal airflow measure range:	0-40 rpm ±2 rpm
SpO_2 measuring range:	0-100 % ±2 % (70-100 %), resolution 1%
Pulse Rate measuring range:	30-250 bpm ±2 bpm or ± 2% (select the larger)
Resistance to surrounding light:	The difference between the value measured in the condition of man-made light and indoor natural light and that of darkroom is less than ±1 %
Display:	1.8" colour OLED
Power consumption:	≤70 mA
Power supply:	3.7 V rechargeable lithium battery
Battery working hour:	continuously work for more than 20 hours
Safety Type:	Internally powered, Type BF applied part
Dimension of device:	69x50x17.3 mm
Weight:	100 g (lithium battery included)

BREATHCARE PAP DEVICES: CPAP AND AUTO CPAP

Start button

Air outlet

CE 0123

Breathing machine

Heated humidifier

53700

53701

yuwell

• 53700 BREATHCARE PAP DEVICE - CPAP
• 53701 BREATHCARE PAP DEVICE - CPAP/AUTO CPAP
The breathcare PAP devices take care of patients every night. PAP (Positive Airway Pressure) device works as an air compressor, it constantly blows pressurized air to patient's airway, to prevent airway collapse.
The PAP devices contain CPAP, Auto CPAP and BiPAP.
CPAP: Continuous Positive Airway Pressure device
Auto CPAP: Automatic Continuous Positive Airway Pressure device
BiPAP: Bi level Positive Airway Pressure device
Improve sleep quality immediately
No trauma, safe and comfortable
User friendly with little discomfort
Quiet, noise ≤ 28 dB
Ultra quiet thanks to 4 methods for reducing noise level.
Stable 20,000 hours life time.
Comfortable based on years of clinical data it effectively reduces the average treatment pressure and provides a comfortable therapy experience.

Connection with oxygen concentrator to supply oxygen with mask which can help ease symptoms of hypercapnia.
Internal software: GB, IT
Supplied with carrying bag, 2 filters, air hose, heated humidifier, breathing hose mask, SD card (only 53701), power adapter, power cable and manual (GB, IT)
• 53704 AIR SOFT TUBE
• 53705 BREATHING NOSE MASK
• 53706 AIR COTTON FILTER - box of 10
Advised replacement every 2-3 months
• 53707 CONNECTOR to oxygen concentrator

53705

TECHNICAL SPECIFICATIONS	
Treatment mode:	CPAP, Auto CPAP (53701 only)
Pressure range:	4~20 cm H_2O
Pressure accuracy:	±0.5 cm H_2O
Time-lapse boosting:	0~45 min
Alarm protection:	face mask fell alarm
Operating power:	100-240 V, 50-60 Hz DC 24 V
Automatic altimetric compensation:	3500m
USM air circuit system:	ultra silence air circuit system
PCM:	noise removal technology
3A self adapting frequency adjustment technique	
Size - weight:	27x13.5xh 10 cm - 1.5 kg

Separable body

Medical humidifier for 1 day line

3.5 inches LCD screen

Portable bag