MT 10 - HANDHELD IMPEDANCE TYPMANOMETER

- 33601 MT10 - HANDHELD TYPMANOMETER
- 33666 MT10 - HANDHELD TYPMANOMETER WITH IPSI-REFLEX

- 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:
  - **Boel test** is a unique screening tool that tests the newborn child’s hearing abilities and child’s response to a sound stimulus, like waking-up, crying, astonishment, direct sound localization.
  - **Interacoustics PA5 PEDIATRIC PORTABLE AUDIOMETER**

**TECHNICAL SPECIFICATIONS**

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

- 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

- **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, cholesteatomas and certain neurological disorders. You can also check tympanostomy tubes and follow-up post medical treatments.
- Ipsilateral Acoustic Reflex (33666 only)

- **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

- **Clinical application**

- 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.

**PA5 PEDIATRIC PORTABLE AUDIOMETER**

- **33665 BET55 SET OF DISPOSABLE EAR-TIPS - box of 139 mixed sizes**
- **33669 SANIBEL MPTII PORTABLE THERMAL PRINTER**
- **33670 THERMAL PAPER ROLLS - box of 3**

- **Boel test** is an extension and modification of COR, where the sound source even before the visual stimulation is presented. Conditioning is effective the child will look in the direction of the stimulation as soon as the tone is heard. If the cooperation with the child is less important. Not only the sound elicited by sound or visual stimulation. If the visual stimulation is not based on cooperation with the newborn child.

**Boel test**

- **Boel 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 cooperation 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 Audiology (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 reflexes: 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.

- **Interacoustics 33601 PA5 AUDIOMETER**

- **33659 GIMA AUDIOTEST - pediatric audiology test**

- **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 audiotor 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 86dB; 90dBA). Testing the child’s response to the sound stimuli at these highly significant thresholds. Easy to use, with only two buttons for the selection of two frequencies, lightweight and battery-powered.

- **Boel 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 cooperation 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 Audiology (VRA) test**

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**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.
**Audiometric Booths - Conform to 93/42/CEE - 2007/47/CE - Class I**

- **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**
  - 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.
  - **33652 RAMPS for wheelchair access**

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**Single Use Tympanometer Eartips - For Most Brands**

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.

- **53500 Ear tip 6 mm - violet**
- **53501 Ear tip 7 mm - yellow**
- **53502 Ear tip 9 mm - green**
- **53503 Ear tip 10 mm - light blue**
- **53504 Ear tip 11 mm - white**
- **53505 Ear tip 13 mm - yellow**

**Verified compatibility for Sanibel™ Aze**

- **Grason-Stadler™ Tymstar™ AT235™ & AT255h™ with black probe tip AA222™ & AA220™ with black probe tip old MT10™**
- **Interacoustics®**
- **Maico®** M124™, M126™, M134™, M144™ with black probe tip
- **Kamplex®**

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**Audiometry & Respiratory**

258
**SCREENING AUDIOMETER**

- **53550 AMPLIVOX 116 SCREENING AUDIOMETER** - air conduction
- **53556 AUDIOGRAM CARDS - box of 50**
- **53555 PELTOR INSULATION HEADBAND**
- **53554 AUDIOMETER HEADBAND**
- **53556 AUDIOMETER CARDS - box of 50**

- **Weight**: 2.4 kg without accessories
- **Dimensions**: 252x170x65 mm
- **Operating power**: 100-240 V, 50-60 Hz

**DIAGNOSTIC AUDIOMETER**

- **53551 AMPLIVOX 240 DIAGNOSTIC AUDIOMETER** - air, bone, masking

- **Cost-effective diagnostic audiometer, ideal for desktop and mobile use.**
- **USB connectivity**
- **Automatic 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, PT).**

**SCREENING DIAGNOSTIC AND CLINICAL 2 CHANNEL AUDIOMETERS**

- **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 + supraliminal tests + W50 software

**SIBELSOUND 400 FEATURES**

- **Audiometry type**
- **AOM**
- **SUPRA**

**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
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

TECHNICAL SPECIFICATIONS

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

STANDARD ACCESSORIES

- User Manual
- Medical grade power supply
- Hybrid audiometer
- 3 diagnostic
- NOAH Maestro module
- Connect to USB (driverless)
- Connect to iPad (4 Bluetooth)
- Connect to PC (33615/6/8 only)
- B71 bone vibrator
- Patient response switch
- Clip-on microphone for operator
- to-patient communication

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
- Hughson-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.

STANDARD ACCESSORIES

- TDH-39 supra-aural headphones
- B71 bone vibrator
- Patient response switch

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Type of device</th>
<th>Hybrid audiometer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class EN 60645-1, ANSI S3.6</td>
<td>3 diagnostic</td>
</tr>
<tr>
<td>Output</td>
<td>NOAH Maestro module</td>
</tr>
<tr>
<td>Masking</td>
<td>Connect to USB (driverless)</td>
</tr>
<tr>
<td>Insert masking earphone</td>
<td>Yes</td>
</tr>
<tr>
<td>Warble tone</td>
<td>Yes</td>
</tr>
<tr>
<td>Pulsed tone</td>
<td>0.5 Hz, 1 Hz, 2 Hz</td>
</tr>
<tr>
<td>Frequency range</td>
<td>125 - 8,000 Hz</td>
</tr>
<tr>
<td>Maximum output intensities</td>
<td>AC: -10 to 120 dB HL</td>
</tr>
<tr>
<td>Attenuator step</td>
<td>5 dB</td>
</tr>
<tr>
<td>Automatic audiometry</td>
<td>HW auto threshold</td>
</tr>
<tr>
<td>Talk over</td>
<td>Internal or external microphone</td>
</tr>
<tr>
<td>Display type</td>
<td>Colour graphic</td>
</tr>
<tr>
<td>Display size resolution</td>
<td>4.3&quot;, 488x272</td>
</tr>
<tr>
<td>Internal memory</td>
<td>100 patients</td>
</tr>
<tr>
<td>Operating voltage</td>
<td>100-240 V, 50/60 Hz</td>
</tr>
<tr>
<td>Dimensions - weight</td>
<td>32x32x9 cm (12.6x12.6x3.5 in) - 1.8 kg (4.0 lbs)</td>
</tr>
</tbody>
</table>
SPIROTEL SPIROMETERS - BLUETOOTH OPTION

- 33471 SPIROTEL with WINSPIRO software
- 33472 SPIROTEL with Bluetooth and WINSPIRO software
- 33473 SpO2, PROBE - adult - optional
- 33410 MOUTHPIECES int Ø 2.8 x ext Ø 3.0, h 6.5 cm

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 screen results (with 33473)
- e-diary for home care symptom control.

Compatible with Qualcomm Life 2 net Hub

TECHNICAL SPECIFICATION

Flow sensor: Bi-directional digital turbine
Flow range: ±16 L/min ±3% or 50 mL
Flow accuracy: ±5% or 200 mL/min
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
SpO2, range: 20-254 BPM ±2 BPM 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.

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.

GIMA PAPER MOUTHPIECES

<table>
<thead>
<tr>
<th>GIMA code</th>
<th>Sizes - cm</th>
<th>Suitabe for</th>
<th>GIMA codes</th>
<th>Compatibility</th>
<th>Minimum order</th>
</tr>
</thead>
<tbody>
<tr>
<td>33410</td>
<td>2.8x3.6x6.5</td>
<td>adult</td>
<td>33431, 33433, 33471-2, 33512-14, 33518-22, 33528-32, 33534</td>
<td>Micromedical Vitalograph, Mir Ferraris (Koko legend)</td>
<td>box of 500</td>
</tr>
<tr>
<td>33897</td>
<td>2.0x2.2x6.5</td>
<td>paediatric</td>
<td>33480, 33484-7</td>
<td>MicroMedical Vitalograph, Mir</td>
<td>box of 250</td>
</tr>
<tr>
<td>33412</td>
<td>Plastic adapter</td>
<td>33411</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>33506</td>
<td>2.6x2.8x6.5</td>
<td>adult</td>
<td>33486, 33487</td>
<td>Sibel*</td>
<td>box of 100</td>
</tr>
<tr>
<td>33494</td>
<td>1.9x2.1x7</td>
<td>paediatric</td>
<td>33480, 33484-7</td>
<td>Sibel*</td>
<td>box of 100</td>
</tr>
<tr>
<td>33890</td>
<td>2.5x2.7x7</td>
<td>adult</td>
<td>-</td>
<td>Fukuda Sangio, Thor</td>
<td>dispenser of 100</td>
</tr>
<tr>
<td>33892</td>
<td>2.8x3.05x7</td>
<td>adult</td>
<td>-</td>
<td>Cosmed (Pony model)</td>
<td>dispenser of 100</td>
</tr>
<tr>
<td>33897</td>
<td>3.0x3.3</td>
<td>adult</td>
<td>-</td>
<td>Sensormedics, Microcard</td>
<td>box of 500</td>
</tr>
<tr>
<td>33899</td>
<td>2.4x2.6</td>
<td>adult</td>
<td>-</td>
<td>Sorin Lifewatch, Fukuda Denhi</td>
<td>box of 500</td>
</tr>
</tbody>
</table>

GIMA PLASTIC MOUTHPIECES

<table>
<thead>
<tr>
<th>GIMA code</th>
<th>Sizes - cm</th>
<th>Suitabe for</th>
<th>GIMA codes</th>
<th>Minimum order</th>
</tr>
</thead>
<tbody>
<tr>
<td>33432</td>
<td>1.7x2.1x5, 2.7x3x5</td>
<td>adult/ped</td>
<td>33431, 33433</td>
<td>Ferraris</td>
</tr>
<tr>
<td>33691</td>
<td>2.3x2.6x7</td>
<td>adult</td>
<td>33682-4, 6, 8</td>
<td>Thor</td>
</tr>
</tbody>
</table>

*Gimaspir A/B need adapter 33495

SPIROMETRY PAPERS

- 33492 MIR SPIROMETER 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 NOSE CLIP

BACTERIAL FILTER

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

COMPATIBILITY WITH:

Spirograph
Erich Jaeger GmbH
Ferraris Medical - P.K. Morgan
Sensormedics
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 transparent bag.
Made in Italy.
SMART ONE PEAK FLOW-FEV1
- 33681 SMART ONE® - Peak Flow and FEV1
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

PEAK FLOW METERS
- 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
- 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.

AEROSOL HOLDING CHAMBER
- 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
Mouthpiece: 22 mm external Ø
Materials: All Latex Free Silicone
User Manual: GB, FR, IT, ES, DE, PT, NL, GR, TR

Volume: 110 ml
Weight: 33 g
Warranty: One year
Made in USA
**SPIROBANK II SMART - PORTABLE SPIROMETER WITH SPO₂ OPTION**

- **33512 SPIROBANK II SMART + WINSPIROPRO SOFTWARE**
  Spironeter with 10,000 tests memory capacity, monochromatic LCD display, 6 keys membrane keypad. Battery power supply (3.7 V, 110 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 (SpO₂ % and pulse frequency tests).
  - Measured parameters: min, max and average SpO₂ %, min, max and average pulse frequency, SpO₂ total events, test duration
  - 33410 MOUTHPIECES int. Ø 2.8 x ext. Ø 3, h 6.5 cm
  - 33526 REUSABLE TURBINE
  - 33507 DISPOSABLE TURBINE with mouthpiece - box of 60
  - 33525 ANTIBACTERIAL FILTER - box of 50 disposable
  - Data and graphs export also via e-mail
  - System requirements:
    - XP, Vista, 8, 10

**WinspiroPRO software functions:**
- 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
- Made in Italy
- Health Canada

**TECHNICAL SPECIFICATIONS - SPIROMETRY**
- Measured parameters: FVC, FEV1, FEV1/FVC%, DTF, PEF, FEV1.5, FEV1.75, FEV1.9, FEV1.25, FEV1.5, FEV1.75, FEV1.9, FEV1.25, FEV2, FEV2/FVC%, FEV2, FEV2/FVC, FEV2, FEV2/FVC%
- Flow sensor: bi-directional digital turbine
- Flow range: a 1L/s
- Accuracy in flow measurement: ±3% or 50 mL
- Flow accuracy: ± 5% or 200 mL/s
- Dynamic resistance: <0.5 cm H₂O/L/s
- Volume flow: ± 16 L/s
- Volume accuracy: ±3% or 50 mL, whichever is greater
- Power supply: Lithium-Ion 3.7V, 1100 mA

**TECHNICAL SPECIFICATIONS - OXYMETER (33514 only)**
- SpO₂ range: 0-99% ±2 % between 70-99% SpO₂
- Measurement method: red and infrared absorption
- Signal quality indicator: 0-8 segments on display
- Memory capacity: up to 300 hours oximetry

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

**SPIROBANK II BASIC**
- Complete and rapid pocket spirometer for the General Practitioner to carry out spirometry anywhere.
- No calibration required, use disposable turbine FlowMIR with integrated mouthpiece (33507) or reusable turbine (33526).
- Measured the most important spirometric parameters including: FVC, VC, IVC, 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 carrying 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
- Display: LCD monochrome 160x80 pixel
- Flow range: ± 16 l/s
- Flow accuracy: ±3% or 50 mL whichever is greater
- Volume accuracy: ±3% or 50 mL whichever is greater
- Made in Italy

**SPIROBANK G WITH 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.

**Made in Italy**
- WinspiroPRO system requirements:
  - Windows®: Vista, 2000, XP, Me, Seven, 8
  - Screen resolution: 1024x768
  - Hard disk space: 160 MB

**Techincal specifications - Oxymetry (33514 only)**
- Measured parameters: SpO₂ % and pulse frequency tests.
- SpO₂ range: 0-99% ±2% between 70-99% SpO₂
- Measurement method: red and infrared absorption
- Signal quality indicator: 0-8 segments on display
- Memory capacity: up to 300 hours oximetry

**WinspiroPRO software functions:**
- 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
- Made in Italy
- Health Canada

**System requirements:**
- Windows®: Vista, 2000, XP, Seven, 8, 10
- Screen resolution: 1024x768
- Hard disk space: 160 MB
This software also gives trend graphs of any parameter. All stored
3D Accelerometer with motion analysis
Simple, clear SpO2
All tests are automatically memorized. Automatic BTPS conversion.
Home-care symptoms diary
Fast on-screen symptoms entry. Touch screen with settable questions and automatic answer recording for homecare patient use (eDiary).
Home-care Oxi Project with Spirometry and oximetry
All tests memorized in Spirodoc® are automatically downloaded into WinspioPRO and a patient data card is created with a password of the spirometry curve. WinspioPRO 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 and the results, including oximetry tests, can be compared. Supplied with reusable turbine.
Multilingual software: GB, FR, IT, ES, DE, PT, NL, SE, CZ, LV, TR, RU, CN, JP.

**CENTRAL UNIT**
- Display: LCD backlit touch screen display 128x64 pixels
- Power supply: Lithium Ion 3.7 V, 1100 mAh rechargeable battery with 50 hours measurement back up
- Accelerometer: Triaxial ±2 g, 400 Hz sampling
- Dimension and weight: central unit 101x81x16 mm, 39 g, removable turbine head: 46x74x24 mm, 17 g

**SPIROMETRY**
- Flow sensor: Bi-directional digital turbine
- Flow range: ±16 L/s
- Volume accuracy: ±3% or 50 mL
- Dynamic resistance at 12 L/s: <0.5 cm H2O/L/s
- Flow accuracy: ±5% or 200 mL/s
- Volume accuracy: ±3% or 50 mL
- Flow range: ±16 L/s
- Flow sensor: bi-directional digital turbine

**TECHNICAL SPECIFICATIONS**
- Temperature sensor: semiconductor (0-45°C)
- SpO2 measured parameters: FVC, FEV1, FEV1/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6%, PEF, PEF25%, PEF50%, PEF75%, PEF25%-75% (COR), FIV1, FIV1/VC, FIV1/FVC%, FVC, VC, IC, ERV, FEV1/VC, VT, VE, Rf, ti, t(tot), TOT, TM, MW measured, MW calculated
- SpO2: range: 0-100%, ±2% (50-100% SpO2)
- Pulse rate range: 0-254 BPM, ±2 BPM or 2%
- Pulse oximeter measured parameters: SpO2 [Baseline, Max, Mean], Pulse rate [Baseline, Min, Max, Mean], Min, Max, Mean, T90%, T89% (SpO2<89%), T88% (SpO2<88%), T5% (ΔSpO2>5%), ΔIndex [125], SpO2 events, Pulse rate events [Bradycardia, Tachycardia], Step counter, Movement [VMU], Recording time, Analysis time
- Total Pulse Variations, Pulse Rate Index, NOD89% (SpO2<89%; >5min), NOD4% (SpO2 Basale-4%; >5min), NOD90% (SpO2<90%; Nadir<86%; >5min)

**MINISPIR® LIGHT**
- **33527 MINISPIR® with Winspio Light**
  - Minispir Light measures 10 essential parameters for a diagnostic spirometry: FEV6, FVC, FEV1, FEV1%, PEF, PEF25/75%, FIVC, Lung Age, VC, IVC. Pediatric incentives. Flow/Volume and Volume/Time curve. Spirometry test interpretation. Temperature sensor for BTS conversion. Minispir Light meets all the requirements of integrated healthcare platforms and tablet applications. For use with FlowMir disposable turbine only (33507).
  - Winspio Light is an intuitive and efficient software, for complete diagnosis included in Minispir Light.

**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
- Multilingual: GB, FR, IT, ES, PT, PL, SE, NL, CZ, LV, TR, RU, CN, JP.

**AND MINISPIR® USB**
- **33528 MINISPIR® with Winspio PRO**
- **33529 MINISPIR® OXYMETER with Winspio PRO**
  - 32 measured parameters: FVC, FEV1, FEV1%, FEV3, FEV3%, FEV6, FEV1/FEV6%, PEF, PEF25%, PEF50%, PEF75%, FEV25-75%, FET, VET, Lung Age, FIVC, FIV1, FIV1%, PIF, VC, IVC, ERV, FEV1/VC%, VT, VE, Rf, ti, te, t(tot), TOT, TM, MVV, CD manual GB, FR, IT, ES, DE, PT.
  - Winspio 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.

**TECHNICAL SPECIFICATIONS 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
- Dynamic resistance at 12 L/s: <0.5 cm H2O/L/s
- Power Supply: line powered from USB port
  - Dimension: 50x142x26 mm
  - Weight: 65 g

**TECHNICAL SPECIFICATIONS MINISPIR® PRO**
- SpO2 range: 0-99%
- SpO2 accuracy: ±2% t(70-99%) SpO2
- Pulse Rate range: 30-300 BPM
- Pulse Rate accuracy: ±2% or 2%
- Measured parameters: SpO2 [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90 [SpO2<90%], T89 [SpO2<89%], T88 [SpO2<88%], ΔSpO2 [5% or 2%], ΔIndex [125], SpO2 events, Pulse Rate Events [Bradycardia, Tachycardia]
**SPIRROLAB III - DIAGNOSTIC SPIROMETER WITH SPO₂ OPTION**

- **33521 SPIRROLAB III** - diagnostic spirometer with high resolution colour display, built-in printer and PC WINSPIROPRO software
- **33522 SPIRROLAB 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
- - PREPOST 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
- - rechargable 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 MOUTHPIECE** - box of 60
- **33524 CONNECTION CABLE MINIFLOWER-SPIRROLAB III (532370)** - spare
- **33523 CONNECTION CABLE MINIFLOWER-SPIRROLAB and SPIRROLAB II (532375)** - spare
- **33536 SP-10 POCKET SPIROMETER**

Pocket, portable spirometer with large TFT screen to clearly display both numbers and flow charts.
Synchronously measure FVC, PEF, FEV₁, FEV₁%, FEV₂, FEV₂/FEV₅, FEV₅.
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 33521-33522**

- Flow/volume range: ± 16 l/s
- Volume accuracy: ±3% or 50 ml whichever is greater
- Flow accuracy: ±5% or 200 ml/sec whichever is greater
- Dynamic resistance: <0.8 cm H₂O/l/s
- Dimensions: 310x205x65 mm
- Parameters: FVC, FEV₁, FEV₁/VC%, FEV₁, FEV₂/FEV₅%, FEV₅, FEV₁/FEV₅%, PEF, FEF25-75%, FEF25%, FEF50%, FEF75%, PEF, TE, *PEF, *PEF, *PEF, PIF, PVC, FVC, FVC, FVC, VC, IVC, IC, FVC, VC, VC, VC, VC, VE, VE, VE, VT, VT, VT, VT, MVV *: Best value

**TECHNICAL SPECIFICATIONS 33531-33532**

- Flow/volume range: ± 16 l/s
- Volume accuracy: ±3% or 50 ml
- Flow accuracy: ±5% or 200 ml/sec
- Dynamic resistance: <0.8 cm H₂O/l/s
- Dimensions: 310x205x65 mm
- Parameters: FVC, FEV₁, FEV₁/VC%, FEV₁, FEV₂/FEV₅%, FEV₅, FEV₁/FEV₅%, PEF, FEF25-75%, FEF25%, FEF50%, FEF75%, PEF, TE, *PEF, *PEF, PVC, FVC, FVC, FVC, VC, IVC, IC, FVC, VC, VC, VC, VE, VE, VE, VT, VT, VT, VT, MVV *: Best value

**TECHNICAL SPECIFICATIONS 33536-33535**

- 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, FEV₂5%, FEV₅75, FEV₇5
- Made in PRC

**STANDARD ACCESSORIES**

- Carrying case
- Battery charger
- 1 roll thermal paper
- Software Winspiro PRO.
- CD manual: GB, IT, ES, DE, PT
- Nose clip
- Reusable turbine (33526)
- WinspiPRO software included (GB, FR, IT, ES, PT, NL, PL, CN, TR)

**SP-10 POCKET SPIROMETER**

- **33531 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%, FEV₂, FEF25, FEF25%, FEF50, FEF75, 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
SPIROLAB® SPIROMETER: 7” TOUCHSCREEN AND SpO₂ OPTION

Fast, simple, durable diagnostic spirometer, made in Italy.

Unbeatable features
- FVC, VC, MMV, 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.

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.

Miniflowmeter for reusable and disposable turbine (Ø 30 mm)

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

Suitable for children
Patented pediatric incentive directly on the screen.

WinspiroPRO®
High performing 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.

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: ±16 L/s
Volume accuracy: ±3% or 50 mL
Flow accuracy: ±5% or 200 mL/s
Dynamic resistance: <0.5 cm H₂O/L/s
Connectivity: USB 2.0, Bluetooth®
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) (3.1 lb)

TECHNICAL SPECIFICATIONS - OXIMETRY

SpO₂ range: 0-99%
SpO₂ accuracy: ±2% between 70-99% SpO₂
Pulse Rate range: 18-300 BPM
Pulse Rate accuracy: ±2 BPM 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 <=90%), T89% (SpO₂ time <=89%), T40 (Bradycardia duration with Pulse Rate <=40 BPM), T120 (Tachycardia duration with Pulse Rate >120 BPM)

TECHNICAL SPECIFICATIONS - SPIROMETRY

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

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

STANDARD ACCESSORIES

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

Each flowmeter includes a mouthpiece and thermal paper. Each turbine is factory calibrated with a computerized system and is individually packaged in a clean room.

Noseclip for WinspiroPRO®
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
- 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.

- 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
- 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.

REGISTRATIONS

All spirometers are CE marked and registered in Indonesia, Singapore, Hong Kong, Australia, New Zealand, Korea, Saudi Arabia.

THORSOFT - PULMONARY DIAGNOSTIC PC SOFTWARE

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.

STANDARD ACCESSORIES

- Thorsoft software
- Plastic mouthpieces
- Mini USB cable
- Cups for disinfection
- Battery charger
- Bacterial filter
- 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 ml/s (33682-4, 33688)
Flow precision: 2% (33686, 33688), 3% (33682-4)
Flow range: ±18 l/s
Connection to PC: USB

MEASURED PARAMETERS

FVC, MW AND VC MEASUREMENT

WATER PROOF

STANDARD ACCESSORIES

- Thorsoft software
- Plastic mouthpieces
- Mini USB cable
- Cups for disinfection
- Battery charger
- Bacterial filter
- 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 ml/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*1.0, FVC, FEV*1.0/FCV, PEF, FEF*25-75%, MEF*75%, MEF*50%, MEF*25%, FET, MITT, FIVC, FIV*0.5, FIV/FCV (Tiffeneau index) FIV*1.0, PIF, FIV*25-75%, IRV, ERV, TV, Breath rate value
- InSp./Exp. ratio: From 1:10 to 1:1

GIMA code | ACCESSORIES | Minimum order
--- | --- | ---
33690 | Instrumed disinfectant concentrate 1 l (Bactericidal, fungidal, virucidal, sporocidal, tuberculocidal) | box of 10
33691 | Plastic mouthpieces | box of 100
33890 | Disposable mouthpieces | box of 50
33692 | Loki Green single use bacterial filter | 3 l
33505 | Calibration syringe 3 l | 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 SpO2, 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

• 33677 RUBBER ADULT SpO2 PROBE for day
• 33678 NON-WOVEN SpO2 PROBE for night - bag of 2

STANDARD ACCESSORIES
Adult, Neonatal disposable SpO2 probe
Adult SpO2 probe
Software
Manual (GB, IT)

TECHNICAL SPECIFICATIONS
Nasal airflow measure range: 0-40 rpm ±2 rpm
SpO2 measuring range: 0-100 % ±2 % (70-100 %), resolution 1%
Pulse Rate measuring range: 30-250 bpm ±2 bpm or ± 2% (select the larger)

BREATHCARE PAP DEVICES: CPAP AND AUTO CPAP

• 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

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Treatment mode:</th>
<th>CPAP, Auto CPAP (53701 only)</th>
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<tbody>
<tr>
<td>Pressure range:</td>
<td>4-20 cm H2O</td>
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<tr>
<td>Pressure accuracy:</td>
<td>±0.5 cm H2O</td>
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<td>Time-lapse boosting:</td>
<td>0-45 min</td>
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<td>Alarm protection:</td>
<td>face mask fell alarm</td>
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<td>Operating power:</td>
<td>100-240 V, 50-60 Hz DC 24 V</td>
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<td>Automatic altimetric compensation:</td>
<td>3500m</td>
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<td>USM air circuit system:</td>
<td>ultra silence air circuit system</td>
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<tr>
<td>PCM:</td>
<td>noise removal technology</td>
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<tr>
<td>3A self adapting frequency adjustment technique</td>
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</tr>
<tr>
<td>Size - weight:</td>
<td>27×13.5×h 10 cm - 1.5 kg</td>
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