BodyBox Plethysmography

The whole body plethysmograph with a choice of options that has no equals in the marketplace
BodyBox Plethysmography

The **ideal device** for accurate spirometry and lung volumes measurements, for children and adults. Complete **glass clear**

**Complete pulmonary function testing with one device:**

All measurement programs in the **Medisoft BodyBox** are controlled by the powerful Expair software featuring the following testing options, included in the basic standard configuration:

**Complete basic Spirometry**
- Forced Vital Capacity, Slow Vital Capacity, Maximum Voluntary Ventilation and Minute Tidal Ventilation including bronchochallenge testing software.

**Complete airways resistance testing:**
- RAW and SGAW
  - Easy and fast airways resistance measurements inside the BodyBox, a standard method. Panting and Quite Breathing modes, user selectable, high quality signal filtering, with complete test control by the operator, review, analysis of the loops by several user-selected methods, automatic or manual fitting of the slope to the curves, minimum and maximum points as well as adjustment of the FRC level.

**Absolute Static Lung Volumes**
- With the standard, most accurate whole body plethysmography method of Thoracic Gas Volume, the BodyBox measures FRCpleth, VC, IC, ERV, RV, TLC.
Choice of 6 DLCO options:

**UNIQUE**: Medisoft, the only manufacturer featuring a choice of 6 diffusion methods integrated in the BodyBox, to complete the system making a "one station" for all main diagnostics tests:

- **Single Breath** with Helium trace gas (He).
- **Rapid gas analysis diffusion** (RTD) test, Single Breath using Helium trace gas (He) or Methane trace gas (CH4).
- **Re-breathing diffusion** with Helium trace gas (He) and using inspiratory bag.
- **Intra Breath diffusion** with Cardiac Output (Qc).
- **DLCO-NO** dual diffusion method (Trace gas He) (Exclusive) with membrane diffusion (DM) and Capillary blood volume (Vc).
- **Steady State real time diffusion** TICO ss (Exclusive).

More FRC options within the cabin:

**UNIQUE**: in addition to the TGV BodyBox method Medisoft offers an extra FRC-N2 (FRC method by N2 washout), FRC-He (FRC by He dilution), LCI (Lung Clearance Index) and CV (Closing Volume), all integrated in the cabin.

Extra options to complete your pulmonary diagnostic testing:

**Bronchoprovocation and special resistance testing**:

- **PROVO4 Provocation System** for automated, software controlled, accurate and safe bronchial provocation testing.
- **RINT**: resistance measurement using interrupter technique, ideal for children.
- **NEP**: this measurement (negative expiratory pressure) is an alternative method to detect expiratory flow limitation, which does not require performance of forced expiratory efforts on the part of the patient, or a body plethysmography test.

**Respiratory Mechanics testing**:

- **MIP – MEP**: maximum inspiratory and expiratory pressure as an indicator of respiratory muscle strength.
- **SNIP**: measurement of the maximal nasal inspiratory pressure using a nasal cannula. A non-invasive indicator of diaphragmatic muscle fatigue.
- **P01**: inspiratory occlusion pressure at 0.1 seconds, for respiratory muscle drive evaluation.

**Static and dynamic compliance and resistance**: measured by intra-oesophageal balloon catheters.

4 configurations available:

- Standard internal volume
- XL
- XL with handicap access door for wheelchair patients
- Paediatric size

**Easy and clear Expair software** for fast and efficient spirometry, lung volume and resistance testing.
**ExpAir,** the Medisoft software

The most intuitive, user-friendly and complete software package available today, for all Medisoft devices.

- Advanced, data array storage allowing re-evaluation and calculation of test parameters, with export and HL7 messaging capabilities for research and integrating to Hospital systems.
- Trend tabular data reporting of any parameter.
- Interpretation function (GLI 2012 guidelines).
- Comments and offline input.
- Online data transfer.
- Report designer.
- Predicted value editor, new interpretation algorithm based on LLN, ULN, Z-score and percentile.
- Choice of languages and units of measurement.
- Bronchial challenge testing software included.
- Manual entry of blood gases.
- Full calculation function: display of calculation points with manual correction capability.
- Quality control automated software, diagnostic functions and full program control.
- Remote assistance using Teamviewer™.

**Technical specifications:**

**Patient chair:**

- Pneumatic adjustment
- Safe patient and operator mechanism, internal and external handle
- 230 VAC 50 Hz or 115 VAC 60 Hz (see device identification label)
- 110 VA (module)
- 130 VA (module with rapid diffusion)
- 20 min.
- Meets all electrical safety requirements: IEC60601-1
- Classification: IIa
- CE MARK: CE 0843
- MDD: 93/42/EC and harmonized standards
- Computer interfacing: Windows 7 Pro / Ultimate / 8.0 / 8.1 ™ Serial interface RS232 / USB 2.0

**Power requirements:**

- 230 VAC 50 Hz or 115 VAC 60 Hz (see device identification label)
- 110 VA (module)
- 130 VA (module with rapid diffusion)

**Power consumption:**

- 110 VA (module)
- 130 VA (module with rapid diffusion)

**Warmup time:**

- 20 min.

**Meets all electrical safety requirements:**

- IEC60601-1
- IIa
- CE MARK: CE 0843
- MDD: 93/42/EC and harmonized standards

**Computer interfacing:**

- Windows 7 Pro / Ultimate / 8.0 / 8.1 ™
- Serial interface RS232 / USB 2.0

**Ambient conditions for use:**

- Temperature: 10 - 35°C
- Relative humidity: 25 to 85% (non-condensed)
- Barometric pressure: No restriction

**Physical dimensions:**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Standard</th>
<th>XL</th>
<th>Wheel Chair</th>
<th>Pediatric</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H x W x D) cm</td>
<td>180 x 87 x 75</td>
<td>180 x 87 x 87</td>
<td>180 x 120 x 87</td>
<td>140 x 66 x 55</td>
</tr>
<tr>
<td>Weight</td>
<td>± 130 Kg</td>
<td>± 150 Kg</td>
<td>± 160 Kg</td>
<td>± 105 Kg</td>
</tr>
<tr>
<td>Internal Volume</td>
<td>945 L</td>
<td>1250 L</td>
<td>1440 L</td>
<td>450 L</td>
</tr>
</tbody>
</table>

**Intended users:** Medical diagnostic device, Class IIa, should only be used by doctors, physiologists, trained respiratory technicians/nurses or under supervision of such. Data obtained must be interpreted and reported by trained medical staff only.

**A MGC Diagnostics subsidiary**

PAE de Sorinnes 1
Route de la Voie Cuivrée
B-5503 Sorinnes, Belgium
l. +32 (0) 82 22 30 20
f. +32 (0) 82 22 33 34
info@medisoft.be

**Technical support:**

l. +32 (0) 82 67 68 63
support@medisoft.be