



medisoft®  
CARDIO-RESPIRATORY INSTRUMENTATION



## BodyBox Plethysmography

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

[www.medisoft.be](http://www.medisoft.be)

# BodyBox<sup>Pl</sup>ethysmography

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 Quiet 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.

Paediatric - 450L
Standard - 945L
XL - 1250L
Wheel Chair 1440L



**Ideal for** : respiratory care departments, clinical labs, all pulmonary diagnostics, respiratory allergy assessment, paediatrics, physiology, research, occupational

enclosure for maximum patient comfort.

### Choice of 6 DLCO options :

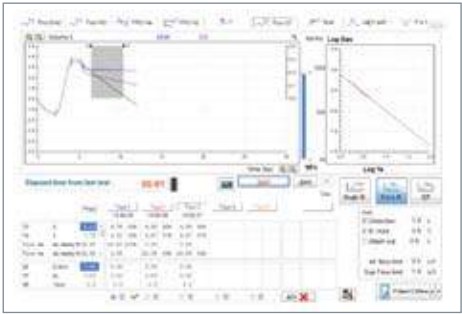
**UNIQUE :** Medisoft, the only manufacturer featuring a choice of 6 diffusion methods integrated in the BodyBox, to complete the system making a “one station” for all main diagnostics tests :

- **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 method N2 washout (Phase I,II,III and IV) analysis, Fowler Dead space), LCI (Lung Clearance Index) and CV (Closing Volume), all integrated in the cabin.

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



### 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.

Can be combined with the following devices:

ECG, FeNO+, FOT Resmon Pro, HypAir, SpiroAir, Micro 5000, Micro 6000, Ergocard Professional, Ergocard Clinical

#### 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



## 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 :

<b>Patient chair :</b>	Pneumatic adjustment
<b>BodyBox closing door :</b>	Safe patient and operator mechanism, internal and external handle
<b>Power requirements :</b>	230 VAC 50 Hz or 115 VAC 60 Hz (see device identification label)
<b>Power consumption :</b>	110 VA (module) 130 VA (module with rapid diffusion)
<b>Warmup time :</b>	20 min.
<b>Meets all electrical safety requirements :</b>	IEC60601-1
<b>Classification :</b>	Ila
<b>CE MARK :</b>	CE 0029
<b>MDD :</b>	93/42/EC and harmonized standards
<b>Computer interfacing :</b>	Windows 7 Pro / Ultimate/ 8.0 / 8.1™ Serial interface RS232 / USB 2.0

## Ambient conditions for use

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

Physical Dimensions	Standard	XL	Wheel Chair	Paediatric
(H x W x D) cm	180 x 87 x 75	180 x 87 x 87	180 x 120 x 87	140 x 66 x 55
Weight	± 130 Kg	± 150 Kg	± 160 Kg	± 105 Kg
Internal Volume	945 L	1250 L	1440 L	450 L



A MGC Diagnostics subsidiary

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

**Technical support :**  
t. +32 (0) 82 67 68 63  
support@medisoft.be



**Intended users :** Medical diagnostic device, Class Ila, 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.