BodyBox PFS

plethysmograph

medisoft®
CARDIO-RESPIRATORY INSTRUMENTATION



ROBUST AND PROVEN SYSTEM



ALL PULMONARY FUNCTION TESTS IN ONE DEVICE

The NEW BodyBox PFS plethysmograph features unique preVent® flow sensor (PFS) technology. This system is the ideal device for accurate spirometry and lung volume measurements from children to adults.

- Complete clear glass enclosure for maximum patient comfort.
- Sturdy, easy-to-clean bench with a 250 kg (551 lbs) weight capacity for all patient sizes.



FEATURING PREVENT® FLOW SENSOR TECHNOLOGY

The small, durable and lightweight preVent® flow sensor is used on all systems.

- Saves time between patients with no warm-up or recalibration needed between changes and provides maximum infection control
- No moving parts or electronics

ALL PULMONARY FUNCTION TESTS
WITH ONE DEVICE:

All measurement programs in the **Bodybox PFS plethysmograph** 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 and Maximum Voluntary Ventilation

ABSOLUTE STATIC LUNG VOLUMES:
THORACIC GAS VOLUME
- FRCpleth, VC, IC, ERV, RV, TLC

AIRWAYS RESISTANCE TESTING:
- Raw, Gaw, sRaw and sGaw

PULMONARY AIRWAYS RESISTANCE:
- Panting mode
- High quality signal filtering (with complete test control by the operator)
- Review
- Analysis of the loops by several user-selected methods.



The preVent® flow sensor (PFS) is based on an **exclusive** design which is small, durable and lightweight. **The preVent® flow sensor** has been validated to meet or exceed the ATS/ERS specifications. It is used worldwide in thousands of labs and provides accurate testing results with safety and infection control in mind.

- No warm-up or recalibration needed between patients.
- Can be verified with 3L cal syringe at any time to comply to standards.
- Practical Snap-in setup.
- No moving parts or electronics.

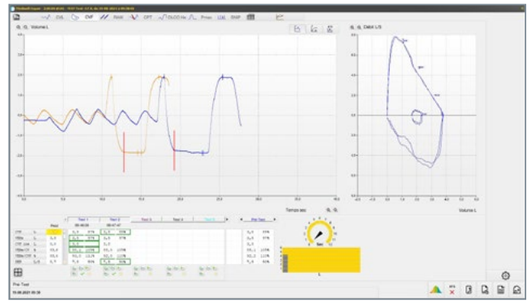
We give you three options for infection control, you make the choice that is right for you!

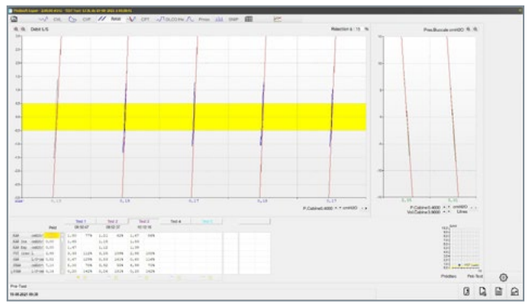
1. **Change:** simply change the filter and keep the same preVent® flow sensor.
2. **Re-Use:** change the flow sensor between patients and replace with disinfected components.
3. **Dispose:** dispose of the flow sensor after each patient.

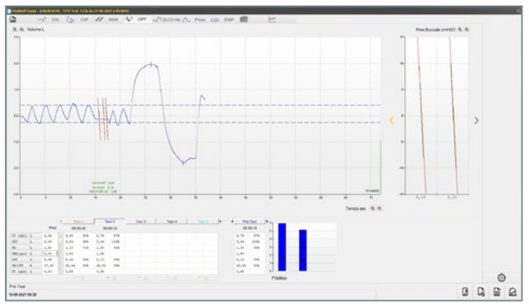
Fast mode testing sequence, allows the operator to program the sequence and modes of each test enabling the patient to reduce the time into the box and speeding the workflow of the pulmonary department.



Integrating all commonly used, important pulmonary function measurements in one system, one database, one report:







Choice of 6 DLCO Options:

UNIQUE: We are the only manufacturer to offer a choice of 6 diffusion methods to complete the system. These options are available inside or outside of the plethysmograph to make the BodyBox a "single station" for all main diagnostics tests:

- Single Breath with Helium trace gas He
- Rapid gas analysis Diffusion test, Single Breath using Helium trace gas (He)
- Rapid gas analysis Diffusion test, Single Breath using Methane trace gas (CH4)
- Intra Breath diffusion with Cardiac Output (Qc)
- DLCO-NO dual diffusion method **Exclusivity** with membrane diffusion (DM) and Capillary blood volume (Vc), now used for POST-COVID patients evaluation.
- Steady State diffusion TICo ss **Exclusivity**

MORE FRC methods:

UNIQUE: in addition to the TGV body box method offers more FRC options, in the cabin such as:

- FRC method by N2 washout, LCI (Lung Clearance Index) and CV (CLosing Volume)
- FRC method by Helium dilution

OPTIONS to complete your array of testing choices, for all your patients needs:

By adding modules you can perform many more pulmonary diagnostic measurements and integrate them in its' database for combined reporting, with tests such as:

- Automated PROVO4, software controlled dosimeter module for accurate, reproducible bronchial challenge testing
- Exhaled Nitric Oxide (FeNO) as a stationary system (FeNO+) for your asthma management and diagnostics
- Cardiopulmonary Exercise Testing module (CPET)
- Respiratory Mechanics modules, for pulmonary rehailitation such as MIP/MEP, SNIP, lung compliance, P.01 (respiratory drive), Negative Expiratory Pressure (NEP)

EXPAIR SOFTWARE

The driving force of the system is **Expair** a powerfully intuitive, user-friendly and complete software package. Available for all devices.

- Advanced, powerful database function and electronic storage, full networking, HL7 and SQL options
- Trend Reporting of any parameter
- New interpretation algorithm based on LLN, ULN, Z-Score and percentile
- Comments and Offline data input such as arterial blood gases
- Online data transfer
- Report designer
- Predicted value editor
- Choice of languages and units of measurement
- Bronchial challenge testing software
- Measurement sequencing configuration
- Full calculation function: display of calculation points with manual correction capability
- Quality control automated software, diagnostic functions and full program control

Size:

- Standard Cabin for all subjects, child to adult
- Excluding 15 cm of Body Box module

PHYSICAL DIMENSION	STANDARD
H x W x D cm H x W x D inches	173 x 81 x 75 71 x 29 x 32
WEIGHT	± 130 kg ± 286 lbs
INTERNAL VOLUME	887 L

STANDARD

Technical and electrical Specifications:

Power requirement:	*230 VAC 50 Hz or 115 VAC 60 Hz*
Power consumption:	*100 VA (module)* *130VA (module with rapid diffusion)*
Warmup time:	*20 min.*
Meets all electrical safety requirements:	*IEC60601-1*
Classification:	*IIa*
CE MARK:	*CE 1434*
MDD:	93/42/EC *and harmonized standards*
Computer interfacing:	*Windows 11* *Serial interface RS232* *USB 2.0 / 3.0*

Ambient conditions for use:

Temperature:	*10 - 35°C*
Relative humidity:	*15 to 95 % (non condensed)*
Barometric pressure:	800 to 1200 hPa

Trolley Physical Dimensions:

Ergonomic and full electrical isolation trolley option, for PC and printer with full electrical isolation transformer.

(H x W x D):
- 140 x 73 x 55 cm
  55 x 28 x 21 inches

Weight (without accessories):
- 35 Kg
  77 lb



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.

Part#: 0526BBEN

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