SpiroAir
Volumetric P.F.T.

medisoft®
CARDIO-RESPIRATORY INSTRUMENTATION



GOLD STANDARD DRY ROLLING SEAL
SPIROMETER PULMONARY FUNCTION LAB



COMPLETE, MODULAR PULMONARY FUNCTION SYSTEM

Based on the most reliable, accurate transducer on the marketplace:
dry rolling seal horizontal spirometer

The most accurate device for the most accurate spirometry, lung volumes and diffusion measurements, for children and adults.

The SPIROAIR base unit includes spirometry, closed circuit Helium dilution, Functional Residual Capacity (FRC) and lung sub-divisions with a CO2 scrubber and circulating fans. This is the gold standard method for lung volumes with a true volume displacement horizontal dry rolling seal 12 litres spirometer, user accessible, for easy maintenance and cleaning.

- Compact system on trolley or table-top configuration.
- Expair software, with complete operator and patient guidance.
- Any option available to start with what is needed and upgrade over time.
- High precision, reliable, stable gold standard Lilly heated pneumotachograph with, no moving parts.
- Low cost of operation, low maintenance.

Ideal for : the diagnosis of the cardiorespiratory system in a hospital or medical office setting.

Complete pulmonary function testing with one device. All measurement programs in the **Medisoft SpiroAir** are controlled by the powerful Expair software featuring the following testing options, included in the basic standard configuration:

COMPLETE BASIC SPIROMETRY

With choice, every test, to use the closed circuit or the open circuit : Forced Vital Capacity, Slow Vital Capacity, Maximum Voluntary Ventilation and Minute Tidal Ventilation including bronchochallenge testing software.

LUNG VOLUMES METHODS

FRC, VC, IC , ERV, RV, TLC.
UNIQUE : He dilution wash-in, standard method, closed circuit by unique low resistance dry rolling seal spirometer He dilution technique with O2 compensation and CO2 absorption.

CHOICE OF 3 DLCO OPTIONS:

UNIQUE : Medisoft, the only manufacturer featuring a choice of 3 diffusion methods :
• Single Breath with Helium trace gas He.
• DLCO-NO dual diffusion method (Trace gas He) (Exclusive) with membrane diffusion (DM) and Capillary blood volume (Vc).
• Re-breathing Diffusion Dlco rb using inspiratory bag.

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, even with CO2 stimulation option.
- Static and dynamic compliance and resistance: measured by intra-oesophageal balloon catheters.



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 MySQL 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

Technical Specifications:

Physical Dimensions Module

(H x W x D)	cm 39 x 63,2 x 38,5
	inches 15,4 x 248,8 x 151,5
Weight:	22 Kg / 48,5 lbs

Power requirements:	230 VAC 50 Hz or 115 VAC 50-60 Hz.
Power consumption:	± 110 VA module
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
	USB 2.0 / 3.0

Ambient conditions for use

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

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# 0526SPEN

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