Pulmonary Function Test
Powered by PinkFlow

**Ergospirometry**

Exercise testing provides a global assessment of the integrative exercise responses involving the pulmonary and cardiovascular systems. Ergospirometry is increasingly being used in a wide spectrum of clinical applications for the evaluation of untrained or trained muscles and exercise-related capacities.

International guidelines and requirements:
- Guidelines on exercise testing: American Thoracic Society, European Respiratory Society
- European Respiratory Society
- European Respiratory Society

**Accessory**

- The accuracy and reliability of the device are guaranteed only with the usage of original Piston accessories and consumable parts.

**Calibration syringe**

- PCS-1000: Calibration syringe for easy calibration and validation of diagnostic devices.
- One-piece calibration syringe is extremely well sealed and insensitive to variation.
- Volume: 2.8 L ± 0.5 mL
- Connection: ISO-50 medical taper, Female
- Size: 180 x 120 x 100 mm
- Weight: 2.1 kg

**Bacterial and viral filter**

- PBF-M000 and PBF-00M:
- Using bacterial and viral filter prevents cross-contamination during pulmonary function tests.
- Size: D 100 mm x H 75 mm
- Filtering media: Filters by N99
- Resistance: 80 Pa/m3 ≤ 12 kPa
- Additional dimensions: 75 mm
- Device side connection: ISO-50 medical taper, Female
- Inlet side connection: PBF-000: ISO-50 medical taper, Male
- PBF-00M: ESC, female taper

**Bacterial filtration efficiency**

- According to Nelson Laboratories, Salt Lake City, USA

**Mouthpiece**

- MPA-30: Anatomically shaped mouthpiece for the basic pulmonary function tests

**Nasal probe**

- PNP-12, 14, 16:
- Nasal probes for spirometry
- Nasal probe with nasal mask for smooth surface
- Various sizes: D3, D4, D6 mm

**Nasal clip**

- PAC-61:
- It is advisable to use at all pulmonary function tests

**Pistonic Ltd**

- Hungary
- Phone: +36-261-2728833
- Fax: +36-261-2728833
- Website: www.pistonmedical.com
- E-mail: info@pistonmedical.com

![Pulmonary Function Test](image)
The Pneumoflow® flow meter is ideal for the most demanding pulmonary function tests.

- Hygienic single-use applications
- No moving parts
- Inertial mass against condensation and vapor
- Integrated gas sampling port

The Pneumoflow® flow meter fully complies with the specifications and requirements of the European Standard EN13505-1:2004.

**Type Principle**

- Pneumotachograph
- Transducer

**Simplified system overview**

- Sensitive and accurate reference value algorithms
- F1, F2, F3, F4, F5, F6
- Diaphragm
- Duct Flow

**System integration into information network**

- Application of standard protocols
- Modlink 7.5 (USA)
- Gerlin Diadyn (Germany)

Further features:

- Eight identical measurements can be performed simultaneously
- Pre-Post measurement, Trend analysis
- Total definable printed report
- Eight digital communications

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**Spirometer**

- The spirometer is the basic device of the functional lung diagnostics. It is suitable for determining the early malfunction of the respiratory system.
- COPD
- Asthma
- Chronic bronchitis
- Obstructive respiratory disorder
- Emphysema

**Measurement modes**

- Forced ex. and inspiration
- Static vital capacity
- Minimal voluntary ventilation

**Rhinomanometer and spirometer**

- The device measures the measurement of nasal resistance with the respiratory function testing. It is suitable for the objective diagnosis of rhinitis and the ENT status.

**Measurement modes**

- Active anterior nasal resistance
- Active posterior nasal resistance
- Forced ex. and inspiration
- Static vital capacity
- Minimal voluntary ventilation

**Breath carbon monoxide monitor**

- PDS-301i and PDS-401i

- The device monitors the measurement of breath carbon monoxide concentration.
- It is suitable for the smoking cessation program.
- Monitoring and follow-up breath carbon monoxide concentrations.
- Combination of a full feature spirometer and rhinomanometer.
- Full-flow and volume monitoring during CO analysis.
- CO concentration range: 0-199 ppm
- Automatic zero setting and calibration

**Impulse oscillometer**

- PDS-301i

- The Impulse Oscillograph or with other name is a low frequency offers an economical alternative for measuring respiratory function during the visit to the patient in the breath safety. The test can be performed successfully without any special preparation of the patient.

**PDS-301i**

- Fast Fourier Transformations
- Automatic calculation of Respiratory Spectra
- Markov modeling for Respiratory Spectra
- Sequence of Resistance / Exhalation / Inhalation
- Random induction frequencies
- Induced frequency range: 2.5 Hz
- Induced power: 2.5 Hz max. 50 Hz

**Whole body plethysmograph**

- PDS-311i

- The device measures the measurement of mechanical parameters of the pulmonary system.
- Accessible for patients sitting in a wheelchair (optional)
- Double time constant of the cubus provides tests at normal breathing frequency and with purpose as well
- Deficiency capacity test (optional)
- Spacious cubus with transparent walls and roof from front to the door of the cubus can be open
- Programmable additional environment
- Automatic HTFS correction based on the temperature, humidity and pressure measured in the cubus
- Full automatic calibration and leakage test
- Communication system with back to the speaker and microphone

**Measurement modes**

- Thoracic gas volume
- All components of airflow resistance
- Work of breathing
- Dynamic and static compliance (optional)
- Minute ventilation rate (optional)
- Maximum occlusion pressure
- Forced ex. and inspiration
- Static vital capacity
- Minimal voluntary ventilation
- Nasal resistance (optional)

**Diffusion capacity test**

- PDS-311i

- The device can be used to measure the body's transfer factor, the oxygen binding ability and the functional residual capacity.

**Measurement modes**

- Single breath method with breath holding
- Single breath method without breath-holding
- Capacity output (optional)
- Forced ex. and inspiration
- Static vital capacity
- Minimal voluntary ventilation

**Dose controlled drug inhaler**

- PDS-301i

- The device can be integrated into a system with all pulmonary lung diagnostic devices.

**Measurement modes**

- Non-dispersive infrared (NDIR) multi gas analyzer
- CO, CH4, CO2
- Inhalation measurement
- Direct gas analysis without gas sampling balloon

**Modifications of pulmonary function parameters as a function of inhaled dose are traceable on histograms**