A unique diagnostic solution for complete Cardiopulmonary Assessment

- Maximal Oxygen Uptake ($\text{VO}_2\text{max}$) and measured METs.
- Classification of Exercise Capacity and Anaerobic Threshold
- Nutritional Assessment and resting $\text{VO}_2$ for Fick equation
- Full Spirometry (FVC, SVC, MVV, etc.)
- Multiple scores for Cardiovascular and Pulmonary Risk analysis
- Body Composition and comprehensive Weight Management software
- Interfaces with conventional Stress Testing ECG
- Affordable, compact, and easy to use
The Fitmate MED measures maximal oxygen uptake, the Gold Standard for measuring exercise capacity and quantifying aerobic fitness. Together with exercise electrocardiography, the Fitmate MED enables cardio pulmonary stress tests to be completed without an expensive investment, complicated procedures, or specialist expertise. Patient rehabilitation is managed with exercise prescription and weight management software according to established international guidelines. The Fitmate MED is the first diagnostic equipment designed to provide a complete analysis of cardio pulmonary function.

Clinical Applications of VO₂
- Actual measurement of Exercise Capacity and METs (not-estimated)
- Pre-operative evaluation for surgical risk
- Classification and prognosis of Congestive Heart Failure (CHF)
- Objective selection criteria and decision tool for heart transplant
- Differentiation between cardiac and pulmonary limitation
- Determination of exercise training intensity as part of cardiac rehabilitation
- Nutritional assessment during recovery from illness and chronic health management
- Obesity treatment and Type 2 diabetes prevention
- Identification of energy requirements for respiratory disorders (COPD, sleep disorders, Cystic Fibrosis)

VO₂ Max and Real METs
- Choose between maximal and sub-maximal exercise protocols
- Real-time display of pertinent respiratory parameters
- Automatic and manual detection of anaerobic threshold
- Pre-defined (Bruce, cycle, ramp, etc.) or user-customizable exercise protocols
- Automatic exercise training heart rate zones based on oxygen uptake
- Warnings and quality control messages (mask leaks, breathing pattern, etc.) are displayed during test

Resting Energy Expenditure
The Fitmate MED measures oxygen consumption (VO₂) at rest with high accuracy, comparable with conventional metabolic carts.

Spirometry
Complete spirometry testing (FVC, SVC, MVV, Pre/Post bronchial dilator response) is available, fully complying with ATS/ERS recommendations.

Other Measurements
- Cardiovascular Risk Stratification (Duke Score, Framingham Index, European Heart Score, BODE Index)
- Individual weight management programs based on Energy Balance equation and diet plan based on daily caloric intake (USDA Database)
- Standard Measurements (BMI, WHR BP, etc.)
- Lifestyle monitoring (with optional physical activity monitor, the Fitmate Lifecorder)

Referencias
Easy to replace O₂ cell comes in a sealed bag. Lifespan is 12-18 months and is indicated by the device.

Graph shows VO₂ and HR markers, and typed BP measurements. Ventilatory limitation area for easy interpretation. Wide range of reports printable on PC (available in A4 or Letter size)

Peak values

Exercise capacity and exercise intensity for cardiac rehabilitation training

Cardio-respiratory Fitness

- VO₂max
- Heart rate
- Recovery

Gas Exchange

- VO₂/HR
- VE
- Breathing reserve
- Rf

Cardiovascular

- Resting Heart Rate
- Maximal Heart rate
- Maximal VO₂/HR
- Estimated peak Cardiac Output
- Estimated peak Stroke Volume

Pulmonary

- Forced Exp Volume in 1 s
- Maximum Voluntary Ventilation

Other

- Load
- Speed
- Grade

METS

- VO₂ (ml/min)
- ml/Kg/min
- bpm
- bpm
- ml/bpm
- l/min
- ml
- l (btps)
- l/min
- l/min
- %
- b/min
- watt
- km/h
- %

Measured

- 5,5
- 1680
- 11,5
- 68
- 103
- 16,3
- 10,4
- 101
- 2,05
- 82,0
- 37,1
- 55
- 33
- 119
- 0,0
- 0,0

Normal

- > 6,9
- > 2112
- > 12,0
- > 156
- > 13,6
- > 2,94
- > 117,5
- > 30
- < 50

Cardio-respiratory Fitness (ml/Kg/min)

Impairment: None to mild

Anaerobic Threshold (ml/Kg/min)

Impairment: Mild to moderate