



The first compact metabolic system for assessing functional capacity and risk stratification



Fitmate^{\top} is a small, inexpensive, user friendly, lightweight, battery-powered unit, facilitating accurate metabolic measurements in both the field and in the lab⁽¹⁾

- Maximal oxygen uptake (VO₂max) and measured METs
- Classification of Exercise Capacity & Anaerobic Threshold
- Nutritional Assessment and resting energy expenditure
- Full Spirometry (FVC, SVC, MVV, etc.)
- Multiple scores for Cardiovascular and Pulmonary Risk analysis
- I Interfaces with conventional stress testing ECG
- Affordable, compact & easy to use



The Fitmate MED is the first portable diagnostic equipment designed to provide a complete picture on cardio pulmonary function. Fitmate MED measures maximal oxygen uptake, the "Gold Standard" for assessing exercise capacity and quantifying aerobic fitness. Fitmate MED is a compact desktop device with internal rechargeable battery, a large LCD screen and in-built printer that allow testing without a computer or mains power lead. Fitmate MED processes test results and stores all information inside its internal memory, ready for upload to PC software (included).

In combination with traditional stress ECG, the Fitmate MED can assess the patient's functional capacity, overcoming limits of conventional cardiovascular stress test without the need of expensive equipment. In addition, Fitmate MED also provides multiple scores for cardiovascular risk stratification (Duke Score, Framingham Index, European Heart Score, BODE Index), which are useful for a more effective classification of the cardiac patient. Patient rehabilitation is then managed with exercise prescription and weight management software according to established international guidelines.

(1) Nieman DC, et al. Validation of Cosmed's FitMate in measuring exercise metabolism. Appalachian State University, Boone, North Carolina, USA. Res Sports Med. 2007 Jan-Mar;15(1):67-75

Clinical Applications

- Actual measurement (not estimation) of Exercise Capacity and METs
- Pre-operative evaluation for surgical risk
- Classification and prognosis of CHF (Congestive Heart Failure)
- 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 diabetes type II prevention
- Identification of energy requirements for respiratory disorders (COPD, sleep disorders, Cystic Fibrosis)

Cardio Respiratory Fitness (VO, max)

Fitmate MED has been validated for measuring VO_2 max and for predicting maximal oxygen consumption with a sub-maximal protocol. VO_2 max and sub max tests can be performed with most of cyclergometers and treadmills available in the market.

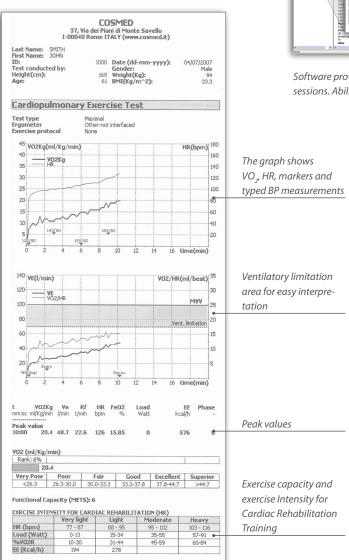
- VO₂, ventilation, heart rate and related parameters with a 15 seconds sampling rate
- Pre-defined VO₂max and Sub-max exercise protocols and user defined protocols
- Pre-defined or custom exercise protocols (Bruce, cycle, ramp etc.)
- Automatic and adjustable Anaerobic Threshold detection
- Automatic RQ compensation during resting and graded exercise
- Automatic (protocol) or manual ergometer control
- Heart rate measurement with wireless belt (included) or TTL from ECG (optional)
- Calculation of Training Zones based on relationship between VO₂ and HR
- Warnings and quality control messages (mask leaks, breathing pattern etc.) are displayed during test.

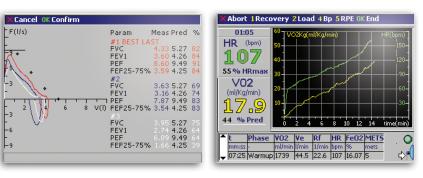
Spirometry

Complete spirometry testing (FVC, SVC, MVV, Pre/Post bronchial dilator response) is available with full compliance to latest ATS/ERS guidelines.

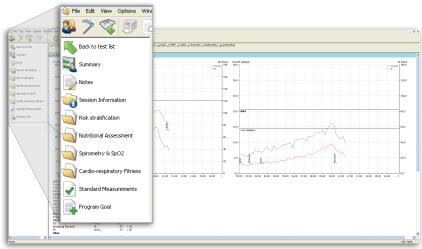
Nutritional Assessment

- Fitmate measures accurate oxygen consumption at rest (REE, RMR), comparable with conventional metabolic carts.
- Tests can be executed either with face masks (multi-use), with mouthpiece and antibacterial filter or, optionally, with an integrated canopy hood
- Individual weight management based on Energy Balance equation
- Complete Lifestyle and Physical activity monitoring up to 60 days (optional)

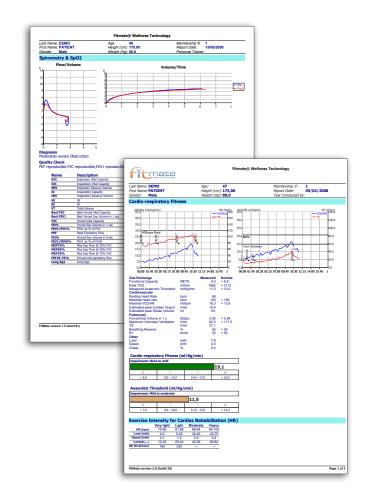




Real-time screenshot of VO₃max and Spirometry tests as shown on Fitmate MED LCD display



Software provides complete information and results of current open session or previously closed sessions. Ability to review serial test data.



Wide range of reports printable on PC (available in A4 or Letter size)

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