

**fitmate** PRO  
Metabolic Technology

Desktop Cardio Pulmonary Exercise Test



“Assess, Measure,  
Improve my  
Performance”

A new approach to human performance assessment  
through  $VO_2$  max and resting metabolism



**COSMED**

The Metabolic Company

“Fitmate™ is a small, inexpensive, userfriendly, lightweight, battery-powered unit, facilitating accurate metabolic measurements in both the field and in the lab<sup>(1)</sup>”

- | VO<sub>2</sub>max, sub-max VO<sub>2</sub> and Anaerobic Threshold (AT)
- | Nutritional assessment (REE, RMR)
- | Fitness assessment and risk analysis
- | Body composition & comprehensive weight management
- | Colour LCD display and embedded high speed thermal printer
- | Software for data management, exercise prescription and HR-VO<sub>2</sub> training zones
- | Accurate, affordable and easy-to-use



Fitmate PRO is a desktop metabolic monitor designed to break the mould of traditional Cardio Pulmonary Exercise Testing and proposes a new approach for the measurement of oxygen consumption during exercise testing or at rest.

Fitmate PRO measures VO<sub>2</sub>max, either directly or through a sub-maximal protocol, and provides additional features like the calculation of the Anaerobic Threshold (AT) and the definition of heart rate training zones.

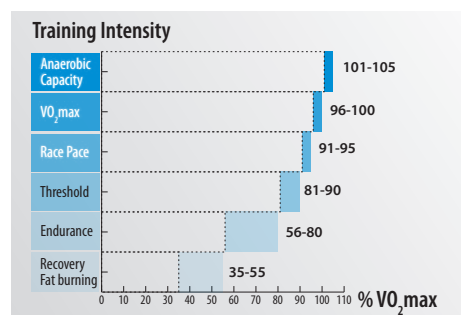
Fitmate PRO is a compact desktop device with internal rechargeable battery, a large LCD screen and in-built printer that allow testing without a computer or mains power lead. Fitmate PRO processes test results and stores all information inside its internal memory, ready for upload to PC software (included).

Fitmate PRO has been validated for measuring VO<sub>2</sub>max and for predicting maximal oxygen consumption with a sub-maximal protocol.

### Cardio Respiratory Fitness (VO<sub>2</sub>max)

The Fitmate technology allows to execute the VO<sub>2</sub>max and sub-max test with most of cyclergometers and treadmills available in the market (h/p/cosmos, Ergoline, Trackmaster, Technogym, Monark etc.).

- VO<sub>2</sub>, ventilation, heart rate and related parameters with a 15 seconds sampling rate
- Pre-defined VO<sub>2</sub>max 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 VO<sub>2</sub> and HR (both sub-max and VO<sub>2</sub>max testing)
- Warnings and quality control messages (mask leaks, breathing pattern etc.) are displayed during test.



Training Zones based on the relationship between VO<sub>2</sub> and HR

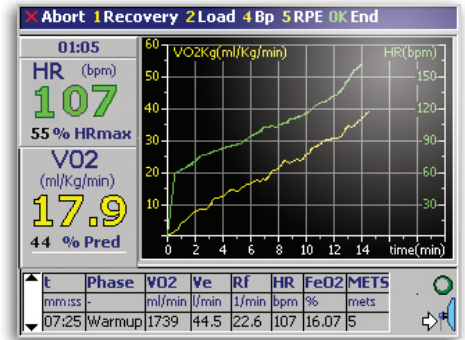
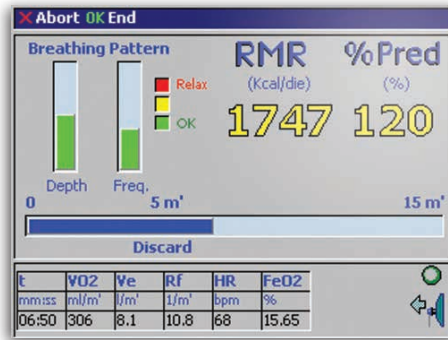


Comfortable silicone masks (5 sizes, both adult and pediatric) are available for exercise testing and for resting measurements.

(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

## Fitness Assessment

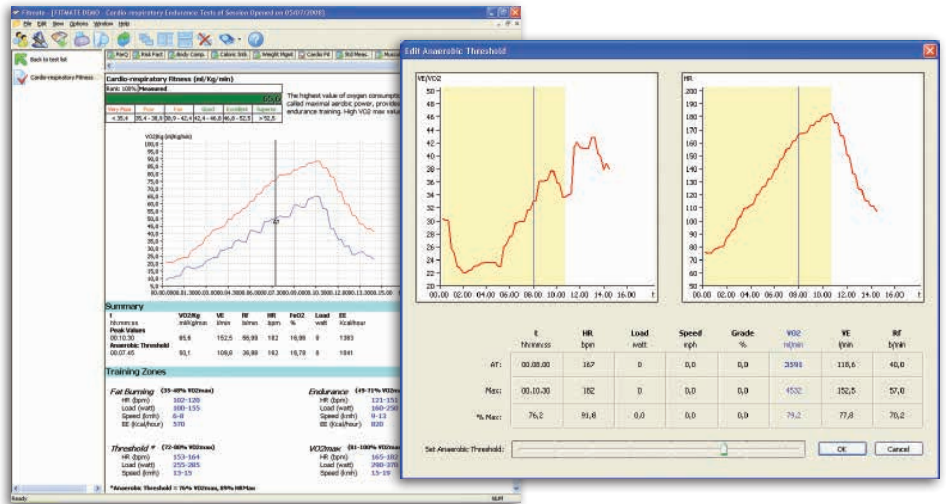
- Muscular fitness, resistance & flexibility
- Body Composition
- Standard Measurements (WHR, blood pressure etc.)
- Comprehensive Exercise Prescription report based on ACSM guidelines with a database of exercises and pictures for educational purposes
- Cardiovascular Risk Analysis (PC software only)



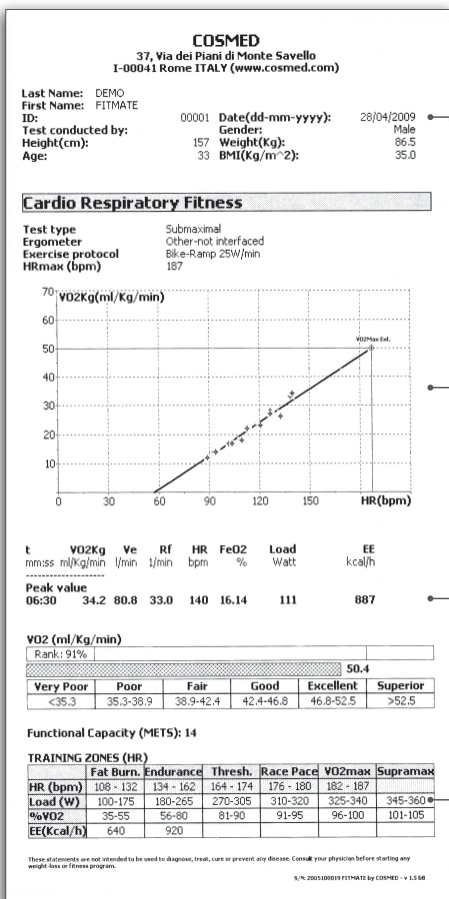
Real-time screenshot of  $VO_2$  max and RMR tests as shown on Fitmate PRO LCD display

## Nutritional Assessment

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



Software provides complete information of current open session or previously closed sessions, offering the ability to review serial test data.



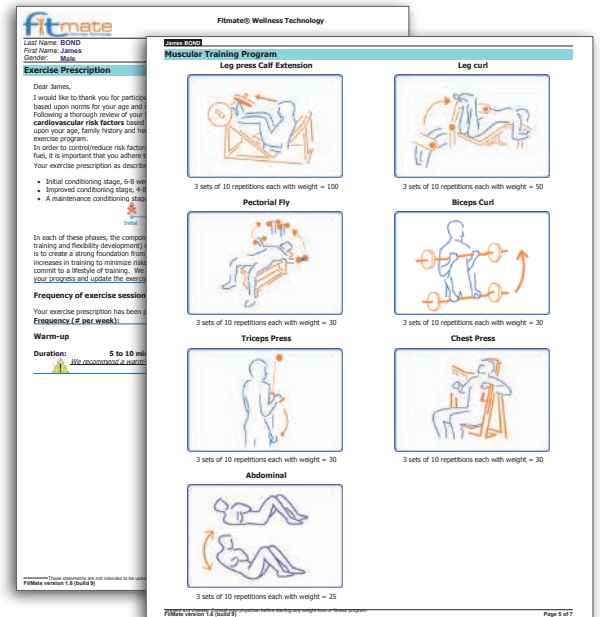
Subject data & test Information

The Graph shows  $VO_2$  / Kg, Heart Rate

Gas Exchange Data ( $VO_2$ , VE, HR etc.) at peak, average, or each 15 secs interval

Individual HR Training Zones based on calculated Anaerobic Threshold

Thermal printout sample (original size 110mm wide): Sub-Maximal Exercise Test



Software printout sample (available in A4 or Letter size): ACSM Exercise Rx



Easy to replace, the  $O_2$  cell comes in a sealed bag, Lifespan is 12-18 months and it is indicated by the device.



**Headquarters**  
**ITALY**

**COSMED Srl**  
Rome  
+39 06 931-5492  
[info@cosmed.com](mailto:info@cosmed.com)

**GERMANY**

**COSMED Deutschland GmbH**  
Werneck  
+49 (0)8684942900  
[DE@cosmed.com](mailto:DE@cosmed.com)

**FRANCE**

**COSMED France SASU**  
Brignais  
+33 (0)4 478628053  
[FR@cosmed.com](mailto:FR@cosmed.com)

**THE NETHERLANDS**

**COSMED Benelux BV**  
Nieuwegein  
+31 (0) 88 10 50 500  
[BNL@cosmed.com](mailto:BNL@cosmed.com)

**DENMARK**

**COSMED Nordic ApS**  
Odense  
+45 6595 9100  
[DK@cosmed.com](mailto:DK@cosmed.com)

**SWITZERLAND**

**COSMED Switzerland GmbH**  
Fehraltorf  
+41 (0)43 50 869 83  
[CH@cosmed.com](mailto:CH@cosmed.com)

**USA**

**COSMED USA, Inc.**  
Concord, Chicago  
+1 800 4263763 Toll Free  
[USA@cosmed.com](mailto:USA@cosmed.com)

**AUSTRALIA**

**COSMED Asia-Pacific Pty Ltd**  
Artarmon  
+61 449 971 170  
[ANZ@cosmed.com](mailto:ANZ@cosmed.com)

**HONG KONG**

**COSMED HK Ltd**  
Kowloon  
+852 3708 3126  
[HK@cosmed.com](mailto:HK@cosmed.com)

Scientific studies at: [www.cosmed.com/bibliography](http://www.cosmed.com/bibliography)



**COSMED Srl**

Via dei Piani di Monte Savello 37  
Albano Laziale - Rome 00041  
Italy  
+39 (06) 931-5492 Phone  
+39 (06) 931-4580 Fax

[cosmed.com](http://cosmed.com)

**Distributed by**



To know more:

