Fitmate MED uses easy-to-replace, the O2 cell comes in a sealed bag. Lifespan is 12-18 months and indicated by the device.

Fitmate MED uses either comfortable silicon masks for exercise and disposable Face Mask (for resting measurements).

Fitmate MED provides two flowmeters to ensure accuracy at any workload: one for exercise testing and one for resting measurements.

Cardio Pulmonary Exercise Testing

- Maximal oxygen uptake (VO₂ max) and measured METs.
- Classification of Exercise Capacity & Anaerobic Threshold
- Nutritional Assessment and resting VO₂ for Fick equation
- Full Spirometry (FVC, SVC, MVV etc.)
- Multiple scores for Cardio Vascular and Pulmonary Risk analysis
- Body-composition & comprehensive Weight Management software
- Interfaces with conventional Stress testing ECG
- Affordable, compact & easy to use

The first & unique diagnostic system for a complete Cardio Pulmonary Assessment

Technical Specification

Main Functions
- Tests Exercise Testing (VO₂ max), Spirometry, Resting Energy Expenditure, Body Composition, Risk Stratification, Standard measurements

Additional Testing - Software Data management, Daily caloric intake, Trends

Oxygen Analyzer
- Type GFC (Galvanic Fuel Cell)
- O₂ Measurement range 0-22%
- Gas Calibration Automatic on room air
- Warm-up time None
- Accuracy ±0.02%
- O₂ Sensor Lifespan 12-18 months
- Sampling Type Dynamic Mixing Chamber (international patent)
- Sampling Rate Programmable (minimum 15 sec.)

Flowmeter #1: Bidirectional digital turbine Ø 28mm (Exercise & Spirometry)
- Ventilation range 5-300l/m
- Flow resistance <0.7cm H₂O/l/s@14l/s
- Accuracy Flow/Volume ±2%

Flowmeter #2: Bidirectional digital turbine Ø 18mm (Resting)
- Ventilation range 0-50l/m
- Flow resistance <0.7cm H₂O/l/s@3l/s
- Accuracy Flow/Volume ±2%

Hardware
- Dimensions & Weight 24 x 20 x 8cm / 1.5kg (9.4 x 7.9 x 3.1 in / 3.3 lb)
- Display Color LCD 320 x 240 pixel
- Printer High Speed Thermal printer 11 cm (4.3 in)

Standard Packaging
- Fitmate unit, RMR - Flowmeter, RMR masks (10 pcs), VO₂max - flowmeter, Silicone face mask, (M-size), Head cap for silicone mask, AC/DC Adapter, USB cable, Fitmate PC Software (CD-Rom), Skin-fold caliper, Body meter, Fitmate pedometer, Oxygen sensor, POLAR® HR belt and probe.

Available languages
- Italian, English, German, Spanish, Greek, simplified Chinese, French, Dutch.

PC configuration required
- Pentium or faster, Windows XP, VISTA 32, 128 Mb RAM or more, USB, CD Rom reader, 80 Mb on HD space available.

Safety & Quality Standards
- Equipment complies with MDD (93/42 EEC); EN 60601-1 (safety) / EN 60601-1-2 (EMC)
- FDA 510(k) cleared.
Clinical applications of VO₂:
- Actual measurement of Exercise Capacity and METs (not estimated).
- Pre-operative evaluation for surgical risk.
- Classification and prognosis of CHF (congestive heart failure).
- Provision of objective selection criteria for heart transplant.
- Decision tool for heart transplantation.
- Differentiation Cardiac vs. Pulmonary limitations.
- Determination of the intensity for exercise training as part of Cardiac Rehabilitation.
- Measuring Resting Energy expenditure for providing optimal nutrition for recovery from (diets and chronic) health management.
- Obesity treatment, and diabetes type I/II management.
- Quantity severity and identify energy requirements for Respiratory disorders (COPD, sleep disorders, Cystic Fibrosis).

VO₂max 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 or custom exercise protocols (Bruce, cycle, ramp etc.).
- Automatic exercise training heart rate zones based on oxygen uptake.

Fitmate MED is the first diagnostic equipment designed to provide a full picture about Cardiac Pulmonary Function. Fitmate MED measures maximal Oxygen Uptake that is the Gold standard for measuring Exercise Capacity and quantifying Aerobic Fitness. Used together with exercise electrocardiography, Fitmate MED enables you to complete the cardiovascular stress test without the need for expensive investment, complicated procedures or specialist expertise. Rehabilitation of the patient is managed with exercise prescription and weight management based on well-documented international guidelines.

Accurate Fitmate MED has been validated against the ‘gold standard’ Douglas Bag technique for VO₂ measurements at rest and during exercise.

Fortable, Desktop-size Compact, light, battery or mains operating.

Built in printer Integrated fast-thermal printer delivers high quality printouts in few seconds.

Self-Calibrating Auto-calibration in less than 20 seconds using room air. No need for special gases or tanks.

No warm-up time Plug it in, and Fitmate MED is ready for use.

No maintenance No on-site or self servicing required. Low cost oxygen sensor replacement required after 12-18 months (automatic warning).

Quality Control Warnings and quality control messages (mask leaks, breathing pattern etc.) are displayed during the test.

Software Included Windows XP/VISTA compatible software for data management, trends and exercise prescription and weight management.

Face leaks 5 stand masks are available for exercise testing and one universal size disposable mask with antibacterial filter for BEE testing.

Optional oxygen saturation 50G finger probe available for both rest and exercise testing.

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