

Performance Features:

- Full-featured exercise test including Flow-Volume Loop
- Breath-by-Breath measurement
- AT determination according to different methods (such as RER, Vslope, lactate, etc.)
- Lightweight
- Automatic volume and gas calibration
- Ambient module for temperature and pressure
- Indirect Calorimetry including fat burning
- Intrad breath measurement for dynamic Flow-Volume Loop
- Heart rate monitoring with Polar Belt
- Calculated Cardiac Output
- Pulse oximeter with finger and ear clip
- External data entry of blood gases/lactate and AaDO<sub>2</sub> calculation
- Training and nutrition reports
- Interpretation program IntelliSupport
- Automatic ergometer control
- Powerful analysis software
- Report Generator for individual report designs
- Interfaces for practice administration systems
- Handy trolley for transportation

Options:

- Notebook Computer and printer
- Integrated 12-lead ECG
- Integrated 3-lead ECG
- Bicycle ergometer
- Treadmill ergometer
- Network

Training and competence

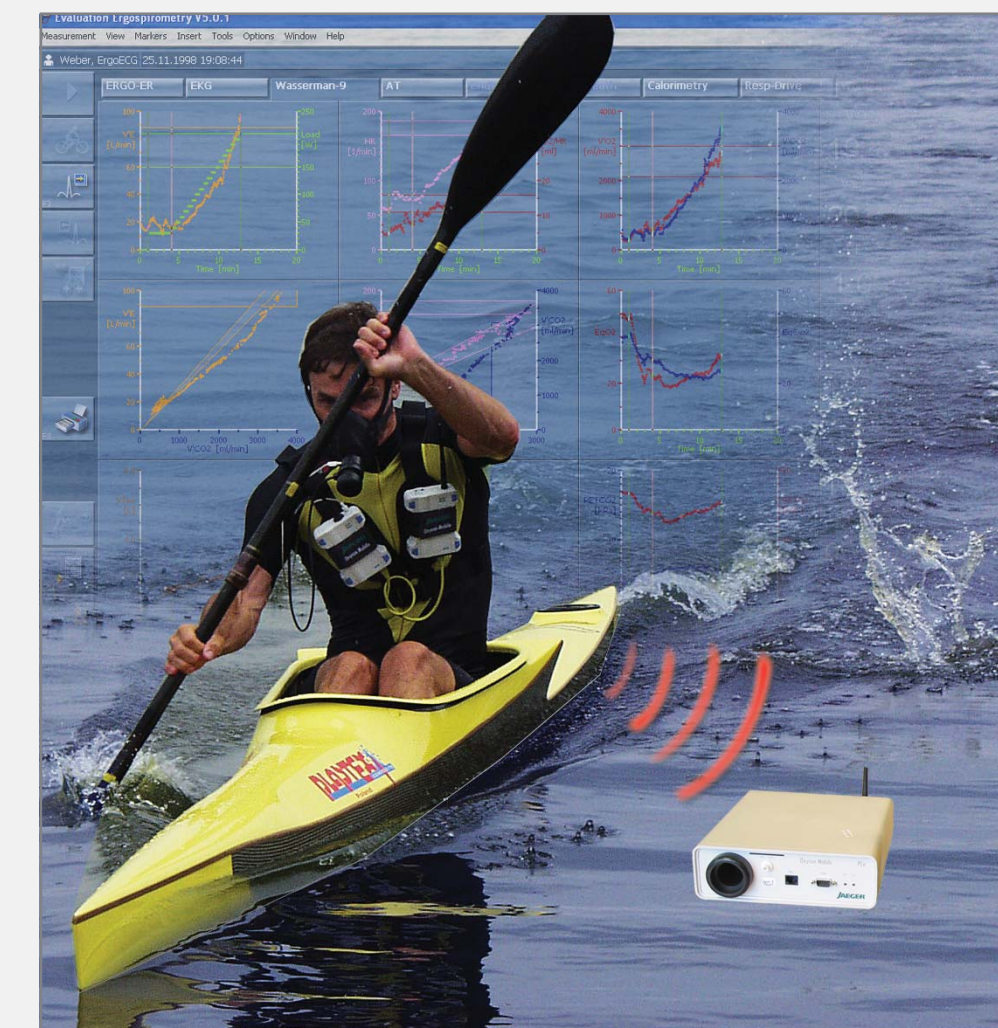
Exercise testing is a very complex issue; however, an internationally recognized team of trainers will be at your disposal to meet the great demand for training in this field. Not only do we offer theoretical and practical training courses but also courses in interpretation.



Comfortable transportation - Oxycon Mobile and trolley



# Oxycon Mobile



- Mobile CPET wherever you are
- Real-time telemetry monitoring
- Internal data storage on memory card
- Cardiac output measurement
- Nutrition Assessment
- Optional three or twelve lead ECG
- SpO<sub>2</sub> measurement
- Complies with international regulations, MDD and FDA

Mobile CPET by **JAEGER**<sup>®</sup>  
On-the-Spot Measurements

Outpatient Monitoring	Lung Function Diagnostics	Cardiorespiratory Diagnostics
Sleep Diagnostics & Therapy	Point-of-Care Diagnostics	Ventilation

# 40 Years of Experience in Cardiopulmonary Exercise Testing

## Oxycon Mobile: small, lightweight and on the spot

Oxycon Mobile was developed in cooperation with top triathletes and sports researchers. The suitability for daily use has already been thoroughly tested. Honestly, are there any other applications where the demands are so high?

Athletes place special emphasis on ease of handling and freedom of movement. That's why our belt system slips over the shoulders and no matter how vigorously the subject is moving, Oxycon Mobile remains securely attached to the chest or back. Thanks to its compact and lightweight design, the unit which is comprised of a belt, a mask and batteries, weighs not more than 950 g. Oxycon Mobile safely stores acquired data to a tiny memory card and transmits the data to a Personal Computer or a Notebook Computer which can be up to 1000 meters away, no wires required. Patients and athletes can therefore be reliably monitored and the test can be remotely controlled. Modern radio technology allows the operator to communicate with the subject and to alter the test sequence as needed.

## Volume Sensor: precise and lightweight

Our patented digital TripleV Volume Sensor complies with ATS criteria, performs without drift and is insensitive to humidity. This highly sophisticated technology is very reliable. As compared to a turbine, the flat fan system has no drift problems due to its small inertia. Thanks to its compact and lightweight design (45 grams only), the sensor adds minimal resistance to airflow and has a dead space of only 30 mL. Patients and athletes will appreciate the fact that it is extremely comfortable to wear with both mask and mouthpiece. Precision is guaranteed at ambient temperatures from -10°C to +50°C (14 to 122°F).

## ECG without compromises

The coded Polar belt, which is included in the delivery package, transmits heart rate via an integrated receiver. For cardiologic approaches, a 3-lead or even 12-lead mobile (i.e. telemetric) ECG is an available option. Oxycon Mobile has thought of everything!



■ 12-lead ECG (option)

The comfortable belt system slips over the shoulders and is attached to the chest or back for freedom of movement



Analyzers - extremely lightweight and highly precise

Battery unit - including memory card and slot for 12-lead ECG

Telemetry unit  
Range: 1000 m

Automatic volume and gas analyzer calibration

Testing and analysis software

Digital TripleV volume sensor

Notebook Computer for online data transfer and evaluation of test data

## Operation: easy and quick to understand

Every system is just as good as its operator. Consequently, operation of the device must be easy understand in order to ensure quick mastery of the system.

Automated program sequences can be controlled by a single key, allowing you to concentrate on your patient rather than on the computer monitors. Is there anything easier? Volume and gas analyzer calibration is done automatically and is therefore easy to operate. Manual calibrations are not required.

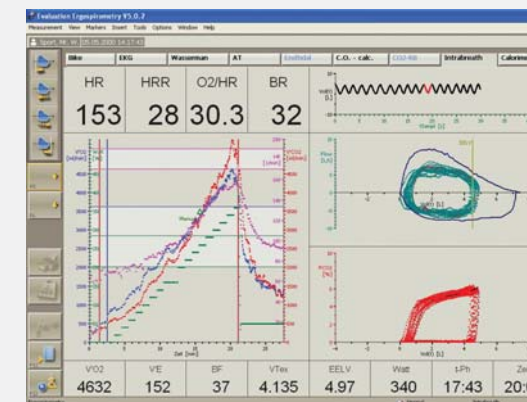
## Economic Solutions

Oxycon Mobile is a paradigm of cost-effectiveness. The system comprises of gas analyzers that have a long economic lifetime, with minimum gas consumption during calibration (50 mL).

With the optional Online Service Agreement, you can make use of our expert support which is immediate and cost saving without requiring a service technician to travel to your site.

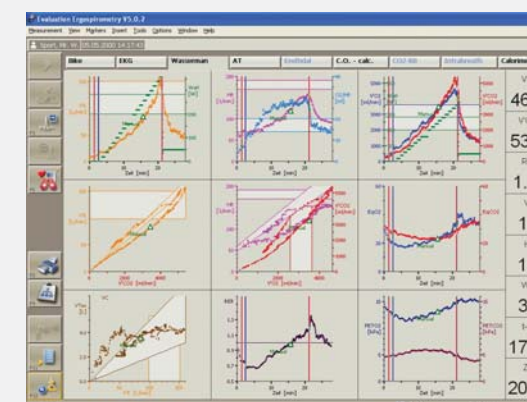
## The Test

Don't leave anything to chance. During the test, the program provides you with an excellent breath-by-breath overview. Just click to move between different displays:



Exercise testing and dynamic Flow-Volume Loop during exercise

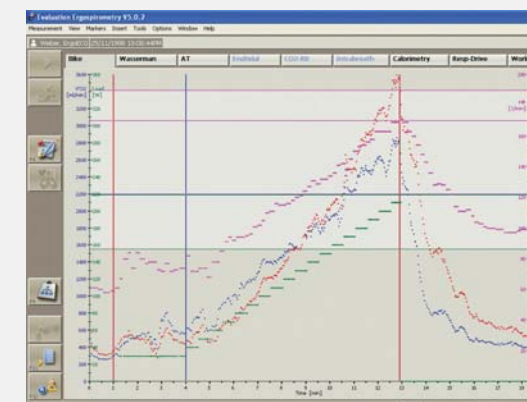
■ Breath by Breath and Intrad breath



The nine-panel graph by Wasserman is displayed during the test. Automatic self-adjusting axis scaling ensures optimal display.

“Custom displays can be created individually”

■ Nine-panel graph



If you want to view a specific curve simply double-click on the desired graph and a full-screen graph will be displayed. This is sophisticated Windows technology!

■ Full-screen display



Combined graph: CPX and ECG  
“ECG including automatic ST measurement”

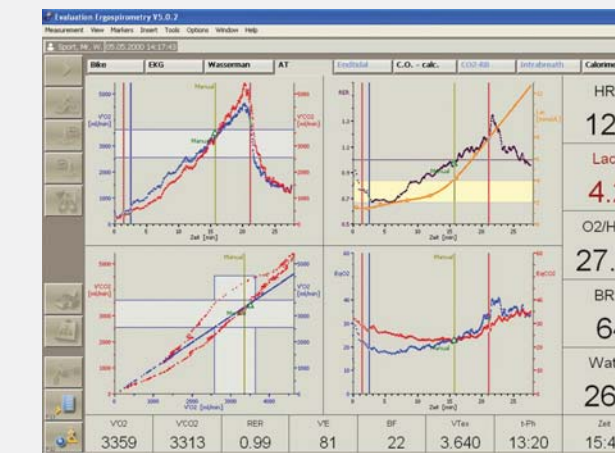
■ ECG and CPX

## Evaluation

Accurate evaluation is of the utmost importance, since a large amount of data are gathered during cardiopulmonary exercise testing.

## Anaerobic Threshold

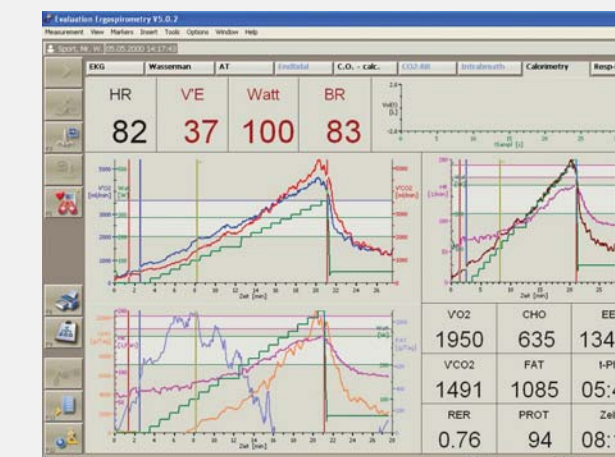
The data can be evaluated immediately after they are collected. If desired, the test can also be reloaded after the test has been stored. The evaluation focusses on determining the Anaerobic Threshold (AT). Different methods such as Vslope, Breathing Equivalent, RER=1 and Lactate are available. The measurements will be displayed at AT to perform a plausibility check.



■ Evaluation of Anaerobic Threshold

## Nutrition Assessment: for a perfect diet

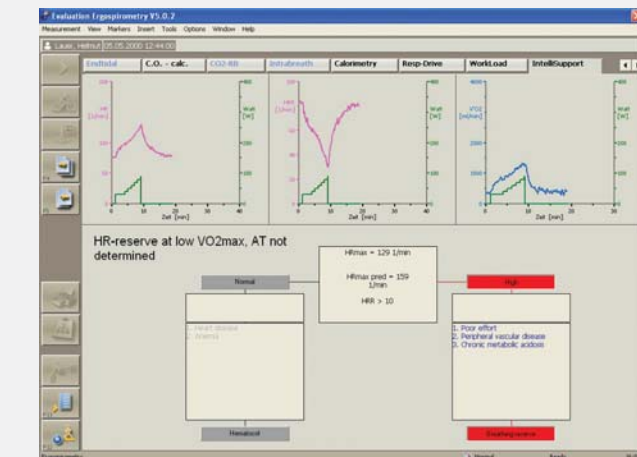
The Indirect Calorimetry program determines the Basal Metabolic Rate and exercise-dependent Energy Expenditure (EE) including a differentiation between carbohydrates, fats and proteins for perfect training control and effective weight loss analysis. Energy Expenditure is calculated on the basis of  $VCO_2$ ,  $VO_2$  and urine nitrogen. Special reports for training control and nutrition are included.



■ Evaluation of Indirect Calorimetry Measurement

## Interpretation Program

IntelliSupport, a graphics-based expert system, supports the busy physician in data analysis. Based on the accepted guidelines and predicted values described by the world renowned Professor Karlman Wasserman, IntelliSupport uses decision trees to guide the clinician through the data accumulated during a test to arrive at a suitable interpretation.



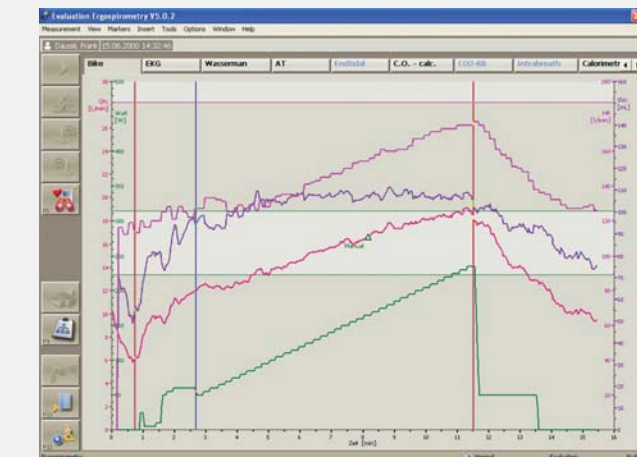
■ IntelliSupport Interpretation Program

IntelliSupport interprets, for example:

- Anaerobic Threshold
  - Maximum Oxygen Uptake
  - Maximum Dynamic Flow-Volume Loop
  - Arterial Blood gases,  $O_2$  pulse and ECG at  $VO_{2max}$
- It also calculates the perfect training ranges for:
- Weight loss, endurance training
  - Increase in performance

## Cardiac Output

Cardiac evaluation is based on the dynamically calculated Cardiac Output according to Wasserman. For assessment of cardiac insufficiency, special slopes such as  $VE/VCO_2$  are calculated.



■ Evaluation of Cardiac Output