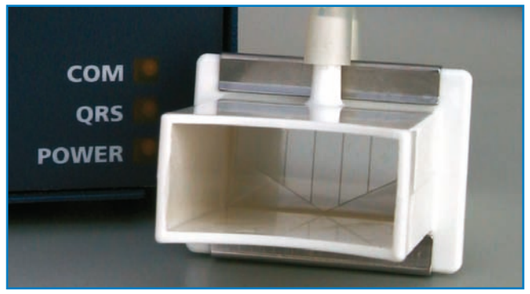
PowerCube Ergo

Ganshorn devices are known for their high reliability. They are easy to operate, economical and they maintain consistently high quality measurement evaluations – and not only during the measurements.

The operator can perform and document system checks for quality assurance quickly and easily. All Ganshorn gas analysers operate reliably and virtually maintenance free.

Due to its compact design you can clean the »Blenden-spirozeptors« in a short amount of time: not applicable concerning disassembling and assembling. It is also less susceptible to structural failure than complex systems e.g. with moving parts.



The PowerCube Ergo provides interfaces for data exchange with external devices.

Well-proven, user-friendly interfaces exist to connect many different ergometers and ECGs. Benefit from the know how of world wide leading manufacturers cooperating with Ganshorn.

Technical Specifications

PowerCube Ergo®

013370043 Consisting in measurement module PowerCube, software package LF8 for Microsoft Windows®, base accessories, trolley with movable support bar, support for gas cylinder and med. 230V Insulation transformer 1000 VA. With complete PC package incl. colour ink jet printer. For the measurement programs Spirometry, Flow-Volume, MVV, Ergospirometry, off-screen input of blood gas values. Including partial measurements Flow-Volume curve under load, Indirect Calorimetry; Including Software Assistant ErgoCheck.

Options:

013370048 O_2 measurement via micro fuel cell
015540030 Evaluation software LFSport
013370046 Cardiac Output (CO_2-Rebreathing)
012230020 Pulse Oximetry SpO_2

Further options e.g. ECG, ergometer, peripheral devices on request. The software is network capable and has interfaces to external software programs.

Active medical product of class II a
RS 232 - infrared interface for 4 KV-separation between PowerCube and PC
Measurement module: PowerCube
Weight: measurement module approx. 2.5 kg,
Complete system approx. 70 kg
Dimensions complete system (d x w x h): approx. 65 cm x 65 cm x 150 cm
Flow transducer standard: Pneumotachograph »Blendenspirozeptor«, bidirectional
Measurement principle: difference pressure measurement with variable orifice
Weight only 29 g, dead space eff. 24.5 ml
O_2 analyser: measurement principle: chemical
Measurement range: 0-100 % O_2
Optional: measurement principle micro fuel cell
Measurement range: 0-21 % O_2
CO_2 analyser:
Measurement principle ultrasound transit time (patented)
Measurement range 0-15 % CO_2

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We are certified by DIN EN ISO 9001:2008 and DIN EN ISO 13485:2003

CE 2004

All our devices are compliant with ATS/ERS guidelines

Images don't necessarily show the standard version. Technical changes and improvements as well as the availability of the listed devices and options may be subject to changes. 08/11

PowerCube Ergo

Ergospirometry

Tested to the max. Proven reliable technology

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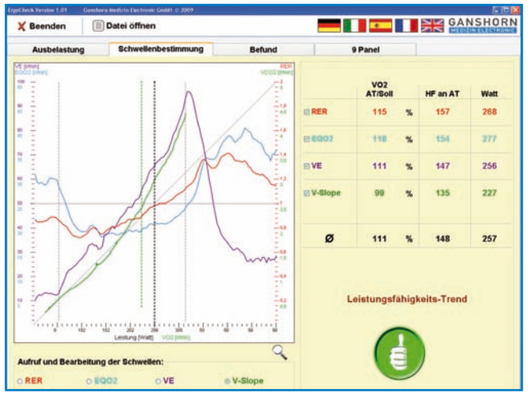
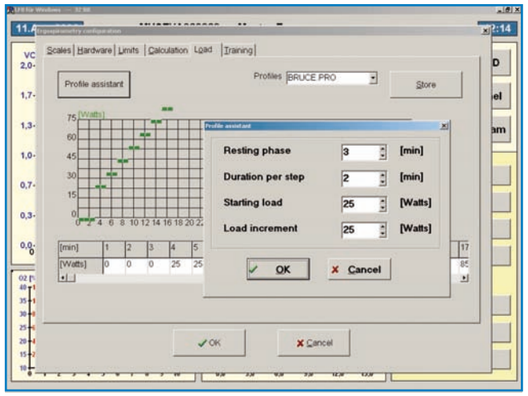
Ergospirometry made to measure





Whether it is for differential diagnosis or for the medically secured support of sportsmen: Ergospirometry has become the indispensable tool for the cardiopulmonary function diagnostics.

Gain valuable information with the PowerCube Ergo for diagnosis, therapy or training support

The PowerCube Ergo is the ideal system for measuring and the evaluation of breathing gases O_2/CO_2 under load.

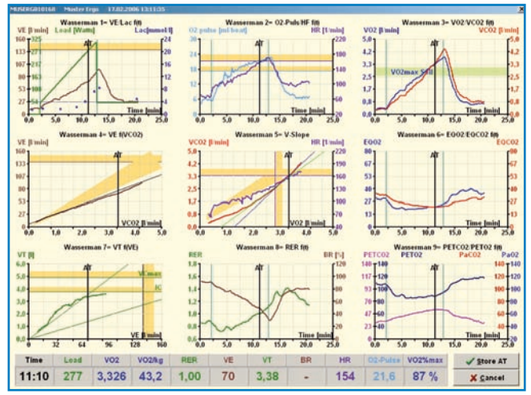
Important measuring programs round off the PowerCube Ergo basic edition Spirometry can be used separately for basic diagnosis; the Flow-Volume curve under load (intrabreath) also serves for the determination of pulmonary limitations. The Maximum Voluntary Ventilation MVV is valuable in Ergospirometry for the determination of the breathing reserve. A profile assistant permits the simple creation of load profiles e.g. when using a pulse belt.

The software assistant ErgoCheck accomplishes a plausibility check of the measurement at the push of a button – as the patient's exhaustion is a substantial factor for the evaluation and comparability of measurements. It also offers, for the first time, the possibility of determining the ventilatory threshold's range by a combination of different threshold models.

Quick response times and high sampling rates

The Ganshorn gas analysers provide accurate values even at high flow rates that for example may be too high for the measuring principle of the mixing chamber. The accuracy of the analysers cannot be affected e.g. by vibrations next to a treadmill.

The versatile system for perfect Ergospirometry



The Ganshorn software LF8 has clear on-screen displays and logical user guidance that permit quick measurement procedures and individual working routines.

- Simultaneous display of the 9-panel-diagram according to Wasserman – also on-screen during the measurement
- High resolution full screen display of each of the 9-panel-diagrams for the exact threshold detection
- Large format diagram for monitoring selectable parameters with alarm function
- Automated determination of the anaerobic threshold by set method (V-Slope, CO2- excess, EQO2 Minimum, RQ=1) or manually in the diagrams

Edit and re-evaluate even archived measurements by retrieving stored data from the original files. Issue reports are fully configurable with various parameter representations: numerical, in tables, graphically in charts, as graphic files or as data files for transfer to external programs.

The optional LFSport software combines Ergospirometry testing with lactate diagnosis and a training plan – the ideal companion for your performance diagnostics!

The 2-point gas calibration with economical gas consumption not only performs a fully automated calibration of the analysers, but additionally calibrates the entire gas leading system – exactly as it will be used for the measurement.

The Ganshorn pneumotachograph »Blendenspirozeptor« demonstrates its unique qualities facing the high requirements of Ergospirometry. It is absolutely unsusceptible to the moisture of condensation and water droplets (perspiration, sputum). After being cleaned it is immediately operational again and requires no drying time. Weighing at approx. 29 grams it is substantially lighter than other systems and therefore more comfortable for the patient. It has been skillfully engineered to ensure small dead space and low resistance even at high flow rates.