Excalibur sport
The standard in Sports Medical diagnostic and performance testing.

Highlights

Extreme workload range of 8 - 2500 watt
The extraordinary workload range of 8-2500 watt is unique in the world! It makes this ergometer extremely suitable for sports medicine and testing the strongest athletes in the world on their anaerobic power or isokinetic capacity.

Read out of seating position
The Excalibur Sport has a unique read-out of the seating position on the display of the Control Unit. The display shows saddle height & angle, handlebar position vertical & height.

Heavy Duty Design
The Excalibur Sport is designed for heavy duty sports medicine ergometry, without doing any concession on the esthetic, modern and robust design. In other words: Excalibur Sport: the gold standard in Ergometry!

Reliable and reproducible stress tests
The experience of professionals who calibrate many ergometers showed that the Lode ergometers are the most reliable across the complete workload and rpm range and still within specifications even after many years of intensive use.

Q-factor equal to road-bike
The Q-factor of the ergometer is equal to the Q-factor of road bikes, creating perfect training circumstances.
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The Gold Standard in Ergometry: with proven accuracy and reliability, the Excalibur sport is renowned worldwide as “the gold standard in ergometry”. The newly designed and improved Excalibur sport ergometer meets the latest requirements of modern sports medicine and research. Since athletes are becoming more and more powerful and testing more advanced than ever, this ergometer has been developed for extreme workloads up to 2500 watt! The new design ensures maximum stability at these high workloads. Thanks to the increased adjustability, versatile positioning of the test subject has never been better! The function of this product can be enhanced by using it in combination with our Lode Ergometry Manager software.

Features

**Extreme low start up load**
The extreme low start-up load of 7 watts and the adjustability in small steps of 1 watt make this ergometer perfectly suitable for many different applications. The standard control unit shows multiple ergometry parameters and you can determine your specific default setting and start-up menu.

**Accurate over a long period of time**
The Lode ergometers are supplied with an electro-magnetic braking mechanism of Lanooy (eddy current). The biggest advantage of this braking system compared to a friction braking system is the absolute accuracy and the accuracy over time. Moreover, friction braking systems have more wearing parts.

**Small adjustment steps**
The workload of the Lode ergometers is adjustable in steps of only 1 watt. Depending on your wishes, the test operator or the test subject can adjust the workload. The steps of 1 watt are possible in the manual mode as well as within protocols.

**Compatible with click pedals**
The bicycle ergometer is compatible with most available clickpedals to allow for maximum user flexibility.
Changing pedals on a regular base

The standard crank is not intended for regular pedal exchange. If you intend to change pedals regularly, we advise to order the adjustable sports cranks with hardened steel pedal mounting block (part number 925808).
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Excalibur sport can a.o be extended with the following options:

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<tr>
<th>Option</th>
<th>Description</th>
<th>Partnumber</th>
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<tbody>
<tr>
<td>Programmable Control Unit</td>
<td>Programming protocols in advance</td>
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<tr>
<td>Programmable Control Unit with SpO2 &amp; Heart rate</td>
<td>Measurement of oxygen saturation</td>
<td>928841</td>
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<tr>
<td>Blood Pressure Module</td>
<td>Accurate measurement without trigger</td>
<td>928818 -</td>
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<td>Heart rate</td>
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<tr>
<td>0-Watt start-up system</td>
<td>Lowest possible startup power</td>
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<tr>
<td>Saddle for children</td>
<td>Versatile ergometry</td>
<td>401066</td>
</tr>
<tr>
<td>Saddle for children - ordered additionally</td>
<td>Versatile ergometry</td>
<td>P401066</td>
</tr>
<tr>
<td>Adjustable sports cranks incl. pediatric range</td>
<td>Optimal force application</td>
<td>925808</td>
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<tr>
<td>Mounting Bracket Control Unit</td>
<td>More controls at hand</td>
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<tr>
<td>Mounting Bracket Control Unit &amp; RPM meter</td>
<td>All controls at hand</td>
<td>928848</td>
</tr>
<tr>
<td>Easy saddle exchange option</td>
<td>Fast change of saddle to suit all users</td>
<td>925807</td>
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<tr>
<td>Excalibur sport rebuilt to Excalibur sport PFM</td>
<td>Upgrade your Excalibur Sport to the max</td>
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<tr>
<td>USB to Serial converter</td>
<td>Easy connection</td>
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<tr>
<td>RS232 cable</td>
<td>Easy connection</td>
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Specifications

Workload

Minimum load 8 W
Maximum peak load 2500 W
Isokinetic workload control
Minimum load increments 1 W
Maximum continuous load 1500 W
Hyperbolic workload control
Linear workload control
Fixed torque workload control
Maximum rpm independent constant load 180 rpm
Minimum rpm independent constant load 25 rpm
Optional heart rate controlled workload
Electromagnetic "eddy current" braking system
Dynamic calibration

Accuracy

Workload accuracy below 100 W 2 W
Workload accuracy from 100 to 1500 W 2 %
Workload accuracy over 1500 W 5 %

Comfort

Toeclips on pedals
Q-factor 147 mm
Minimum leg length user 725 mm 28.5 inch
Minimum leg length user (incl. adjustable pedals) 650 mm 25.6 inch
Vertical seat adjustment maximum 938 mm 36.9 inch
Vertical seat adjustment minimum 550 mm 21.7 inch
Horizontal seat adjustment minimum 72 mm 2.8 inch
Horizontal seat adjustment maximum 324 mm 12.8 inch
Seat angle adjustment maximum 10 °
Allowed user weight 180 kg 396.8 lbs

User Interface

Readout Distance
Readout RPM
Readout Heartrate
Readout target HR
Readout Energy
Readout Torque
Readout Time
Readout Power
Set Display
Set Resistance
Set P-Slope
Set Mode
Manual operation mode
Preset protocol operation mode
Analog operation mode
Terminal operation mode
External control unit
Selfdesigned protocol operation mode

Connectivity

Analog connector
RS232 in connector
RS232 out connector

Dimensions

Product length (cm) 130 cm 51.2 inch
Product width (cm) 70 cm 27.6 inch
Product height 89 cm 35 inch
Product weight 100 kg 220.5 lbs

Power requirements

Power cord length 250 cm 98.4 inch
Power cord IEC 60320 C13 with CEE 7/7 plug
Power cord NEMA

Standards & Safety

IEC 60601-1:2005
ISO 13485:2003 compliant
ISO 9001:2008 compliant

Certification

CE class I according to MDD93/42/EEC
CB according to IECCE CB

Order info

Partnumber: 925900

*Specifications are subject to change without notice.
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