

Corival Eccentric

Possibility to train severe cardiac and pulmonary patients with eccentric exercise



Highlights

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.

High standards

Lode is a socially and environmentally responsible company. All Lode products are RoHS/WEE compliant and Lode is ISO 9001:2015, and ISO 13485:2016 certified. All medical products comply to MDD 93/42/EEC, incl. IEC 60601-1.

Various test modes

Besides the hyperbolic (rpm-independent) mode that is used most of the time, the standard control unit offers several other test modes, like the fixed torque mode and the linear mode. These modes can be used in both manual and terminal mode.

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.

Training severe cardiac and pulmonary patients

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Eccentric ergometry or “negative ergometry” is used to train severe pulmonary and cardiac patients. The motor is pushing the crank axle of the ergometer in the opposite direction. The test subject has to resist this workload and keep the pedal frequency at a selected number to get the desired training effect.

The Eccentric Corival is an ergometer with a design like the Corival with a motor next to the usual electromagnetical braking principle. The maximal eccentric workload is 250 watt. The range of target rpm (30-100 rpm) can be customized and adjusted during the training. The eccentric ergometer has safety protections but may not be used without supervision. Besides this eccentric ergometry, this ergometer can be used for normal ergometry as well.

The ergometer is standard equipped with both a 7" programmable control unit and a 3,5" display.

Features



Compatible with ECG and pulmonary devices

The Lode ergometers have digital interfaces and can be controlled easily by all known stress ECG and pulmonary devices available in the world. This is one of the reasons why the Lode ergometers are very popular worldwide.

**7
watt**

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.



Low noise

Due to accurate manufacturing and the careful choice of materials the product has an extremely low noise level.



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.



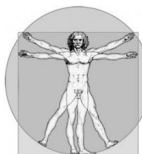
RS232 connectivity

RS232 ports enable connectivity to most ECG and ergospirometry devices as well as PC's.



Readout out of saddle height

The height of the saddle is stepless adjustable and can be read-out on the saddle shaft



Perfect ergonomic position

Improved ergonomic position according to the latest requirements.



Ultra-low step-through

The lowest possible step-through guarantees easy access to the ergometer for all test subjects: a must for people who are not so mobile!



USB connectivity

USB to connect to PC or ECG or ergospirometry products facilitates easy connectivity.

**1
watt**

Small adjustment steps



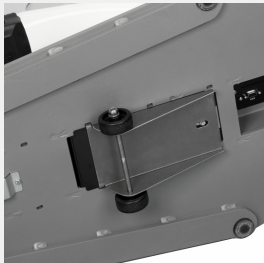




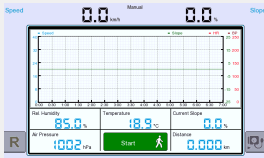





The workload of the Lode ergometers is adjustable in steps of only 1 watt. Depending on your wishes, the test operator or the test subject can adjust the workload. The steps of 1 watt are possible in the manual mode as well as within protocols.

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Corival Eccentric can a.o be extended with the following options:

<p>USB to Serial converter</p> <p>Easy connection</p>  <p>Partnumber: 226012</p>	<p>Arm support</p> <p>Arterial line possible</p>  <p>Partnumber: 906814</p>	<p>Transportwheel for Corival</p> <p>Easy transportation indoors</p>  <p>Partnumber: 960801</p>	<p>RS232 cable</p> <p>Easy connection</p>  <p>Partnumber: 930911</p>	<p>SpO2 for control unit with touch panel (bicycle)</p> <p>Saturation and heart rate</p>  <p>Partnumber: 945823</p>
<p>SpO2 for control unit with touch panel - ordered afterwards</p>  <p>Partnumber: P945823</p>	<p>Shortened saddle shaft</p> <p>Increase flexibility for smaller people</p>  <p>Partnumber: 960806</p>	<p>Ambient sensor pack</p> <p>Check environmental conditions during test</p>  <p>Partnumber: 945827</p>	<p>Blood Pressure with ECG trigger for bicycle ergometer with ECG trigger</p>  <p>Partnumber: 945828</p>	<p>Saddle extra large</p> <p>Versatile ergometry</p>  <p>Partnumber: 401084</p>
<p>Saddle for children</p> <p>Versatile ergometry</p>  <p>Partnumber: 401066</p>	<p>Saddle for children - ordered additionally</p> <p>Versatile ergometry</p>  <p>Partnumber: P401066</p>	<p>Bluetooth Smart heart rate</p> <p>Available in Q2 2019</p>  <p>Partnumber: 945833</p>		

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Specifications

Workload

Minimum load	10 W
Maximum peak load	1000 W
Minimum load increments	1 W
Maximum continuous load	750 W
Hyperbolic workload control	✓
Linear workload control	✓
Fixed torque workload control	✓
Maximum rpm independent constant load	150 rpm
Minimum rpm independent constant load	30 rpm
Optional heart rate controlled workload	✓
Electromagnetic "eddy current" braking system	✓
Dynamic calibration	✓
Power range at maximum rpm (maximum)	1000 W

Eccentric Ergometry

Minimum Eccentric Load	0 W
Maximum Eccentric Load	250 W
Minimum RPM Eccentric Mode	30 rpm
Maximum RPM Eccentric Mode	100 rpm
Safety Protection	✓

Accuracy

Workload accuracy below 100 W	3 W
Workload accuracy from 100 to 500 W	3 %
Workload accuracy from 500 to 1000 W	5 %

Comfort

Q-factor	180 mm	
Minimum leg length user	645 mm	25.4 inch
Allowed user weight	180 kg	396.8 lbs
Handlebar adjustment angle	360 °	
Adjustability range seat	300 mm	11.8 inch

User Interface

English user interface	✓
Norwegian user interface	✓
Czech user interface	✓
Danish user interface	✓
Dutch user interface	✓
Finnish user interface	✓
French user interface	✓
German user interface	✓
Italian user interface	✓
Japanese user interface	✓
Korean user interface	✓
Polish user interface	✓
Portuguese user interface	✓
Russian user interface	✓
Spanish user interface	✓
Turkish user interface	✓
Ukrainian user interface	✓
Readout RPM	✓
Readout Time	✓
Readout Power	✓
Set Resistance	✓
Terminal operation mode	✓
Touchscreen	✓

Connectivity

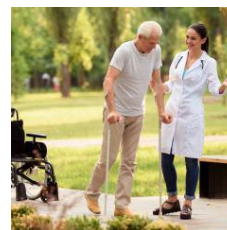
Lode 38K4 interface protocol	✓
Lode interface protocol	✓
Lode WLP interface protocol	✓
Ergoline P10 interface protocol	✓
Ergoline P4 interface protocol	✓
Schiller interface protocol	✓
Bosch EKG 506 DS interface protocol	✓
USB connector	✓
RS232 in connector	✓

Dimensions

Product length (cm)	105 cm	41.3 inch
Product width (cm)	46 cm	18.1 inch
Product height	114 cm	44.9 inch
Product weight	78 kg	172 lbs

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Power requirements

Power cord length	250 cm	98.4 inch
Power cord IEC 60320 C19 with CEE 7/7 plug	✓	
Power cord NEMA	✗	
Max. power consumption eccentric mode	600 W	

Standards & Safety

ISO 13485:2016 compliant	✓
ISO 9001:2015 compliant	✓

Order info

Partnumber: 960905

**Specifications are subject to change without notice.*



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MOVEMENT & PERFORMANCE

ISO 9001:2016 and ISO 13485:2016

Lode B.V.
Zernikepark 16
9747 AN Groningen
The Netherlands
Tel: +31 50 5712811
Fax: +31 50 5716746
E-mail: ask@lode.nl
Internet: www.lode.nl