

# Corival Nuclear Design

Phased out - support up till 2027



## 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.

### Multifunctional

The ergometer can be used in various ergometry settings, enabling a multifunctional deployment.

### 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.

### Stability

Since athletes are getting more and more powerful and testing more extreme, the ergometer is designed for high workloads up to 2500 watt. Even the strongest and most powerful athletes will experience a stable and comfortable basis.

### Multifunctional usable

The MRI ergometer can be used for cardiac examinations, cardiac research, spectroscopy and other examinations and research.



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The Corival Nuclear design is an electromagnetically braked ergometer with a special design and with low startup power. The absence of a handlebar makes it easy to place this ergometer direct in front of an X-ray scanner. The Corival is one of the most popular ergometers worldwide. The low start-up load of 7 Watt is unique. The Corival can be controlled easily by all known stress ECG and pulmonary devices in the world. The Corival has an eddy current electro-magnetic braking mechanism. The biggest advantage of this system is the accuracy which is one of the most important Lode principles. With this ergometer, the stress tests performed are reliable and reproducible. The workload is adjustable in a range of 7 to 1000 watt. Moreover, the noise level is reduced to a minimum. Easy transportation of the device is possible by a simple retractable wheel.

## Features

**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.

**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.



### Designed to be sweat-proof

The housing of the ergometer is designed in such way that sweat does not have the chance to drip into the mechanical parts and cables are protected. This ensures a long lifetime and makes the ergometer insensitive for malfunction.



Service  
friendly

### Service friendly ergometer

Lode ergometers are very service friendly. In general, total costs for spare parts are so low that they are negligible. Furthermore, most options are so easy to install and firmware is so easy to update that labor costs are minimal. Moreover, the ergometer can be cleaned easily.

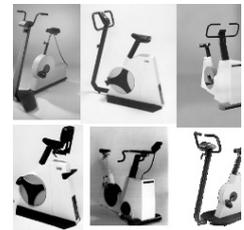


### Easy step-through

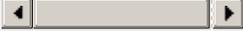
The ergometer has a comfortable step-through: a must for people who are not so mobile!

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

<p><b>Programmable Control Unit</b></p> <p>Easier and faster</p>   <p>Partnumber: 928812</p>	<p><b>Programmable Control Unit with SpO2 &amp; Heart rate</b></p> <p>Measurement of oxygen saturation</p>  <p>Partnumber: 928842</p>	<p><b>Heart rate</b></p> <p>Heart rate controlled cycling</p>  <p>Partnumber: 917810</p>	<p><b>0-Watt start-up system</b></p> <p>Lowest possible startup power</p>  <p>Partnumber: 906805</p>	<p><b>USB to Serial converter</b></p> <p>Easy connection</p>  <p>Partnumber: 226012</p>
<p><b>Blood Pressure Module</b></p> <p>Accurate measurement without trigger</p>  <p>Partnumber: 928818 -</p>	<p><b>RS232 cable</b></p> <p>Easy connection</p>  <p>Partnumber: 930911</p>			

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## Specifications

### Workload

Minimum load	7 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)	1500 W

### 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

Minimum leg length user	645 mm	25.4 inch
Adjustability range seat	300 mm	11.8 inch

### User Interface

Preset protocol operation mode	✓
Analog operation mode	✓
Terminal operation mode	✓
Selfdesigned protocol operation mode	✓

### Connectivity

Analog connector	✓
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### Power requirements

115 V AC 50/60 Hz (138 VA)	✓
230 V AC 50/60 Hz (138 VA)	✓

### Standards & Safety

IEC 60601-1:2005	✓
ISO 13485:2016 compliant	✓
ISO 9001:2015 compliant	✓

### Certification

CE class Im according to MDD93/42/EEC	✓
CB according to IECCE CB	✓

### Order info

Partnumber: 906905

*\*Specifications are subject to change without notice.*