IMAGING ERGOMETRY

- Accurate ergometer 7 – 1000 watt
- Multiple supine ergometry settings
- Digital and analog interface
- Clear read-out of rpm and workload

the standard in Ergometry

IMAGING ERGOMETRY

- Angiography
- MRI Ergometry
- Echo Cardiology
- Nuclear Medicine; Radiology

Angio: *the* standard in imaging ergometry
The three Lode fundamentals, 'accuracy, durability and reliability' all apply to our latest Angio ergometer. This multifunctional ergometer is perfectly suited for supine ergometry applications in Angiography, Echo Cardiology, Nuclear Medicine and Radiology.

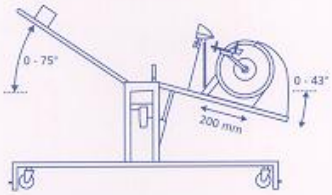
The workload range of this ergometer is 7 to 1000 watt, making it possible to use in various settings and applications. The Angio is equipped with both analog and digital interfaces. The modern and stable design has been implemented in both the ergometer and its accessories.

The basic Angio ergometer can be extended with the optional programmable control unit for implementing up to 50 protocols and a blood pressure module with Dimensional K-sound analysis.

All systems are standard supplied with pedal shoes and a rpm/watt meter for clear read out of the actual pedalling speed and workload. Thanks to the thought-out design, all imaging systems can be moved easily to different locations.

Nuclear Imaging Table

Due to the various adjustment possibilities of the back and leg support and the movement range of the Angio ergometer, this table offers optimal patient comfort. The stability of the design and the construction make it comfortable to use for both the test subject and the operator. The back support is X-ray permeable.



Nuclear Imaging Table

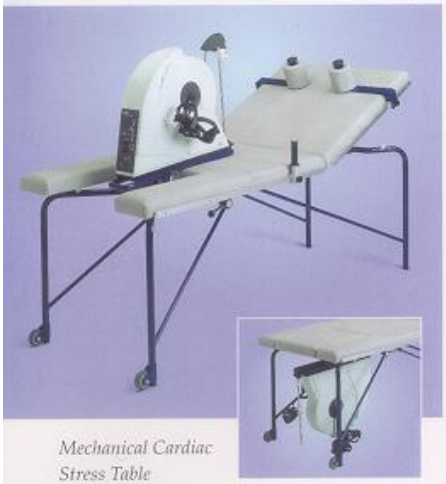
- **Lode *the* standard in Ergometry**

Ever since Mr Fré Lode manufactured the first electro-magnetic cycle ergometer in 1952, accuracy, reliability and durability have been fundamental to further developments. Having started years ago in the small market of cardiology and pulmonary function, Lode BV has become a specialist in the complete spectrum of medical ergometry. Lode is world renowned as a manufacturer of high quality ergometers and the Lode brand stands for accuracy, durability and ergonomic design. The Lode product range varies from cycle to arm and supine ergometers.

Long-term experience in manufacturing medical equipment and continuous development to meet the changing requirements of the market, make Lode a flexible and reliable partner. Together we can transform your specific ideas and wishes into custom-made products.

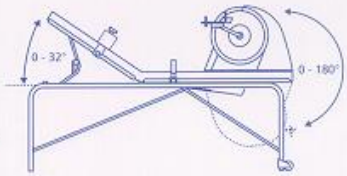
Before leaving the factory all units are dynamically calibrated. Ergometers calibrated with this method are proven to be stable over a longer period of time, more accurate, realistic and reliable in the total workload and rpm range. Of course, all Lode ergometers are produced under the strictest quality control conditions. Lode is ISO 9001, EN 46001 and FDA certified and fulfils the EU medical device directive MDD 93/42/EEC. Over the years, service costs are almost negligible. In other words: Lode, *the* standard in Ergometry.

Mechanical Cardiac Stress Table

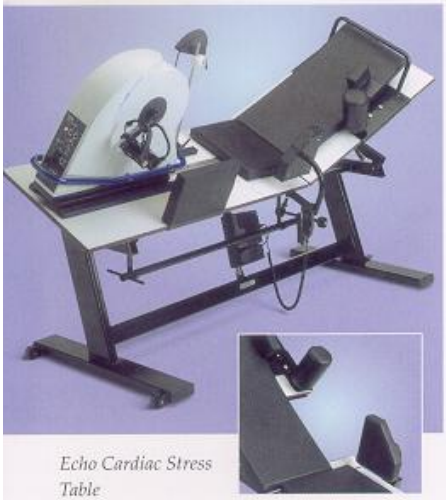


Mechanical Cardiac Stress Table

In combination with the Angio ergometer, this table is perfectly suitable to use for ergometry. You can use it for examinations as well, since it is possible to "hide" the ergometer under the table easily. The width of the mattress is 80 cm. The back panel, the shoulder support and the handgrips are adjustable. The Angio ergometer is adjustable in a range of 180° which enables easy adjustment to suit leg length.



Echo Cardiac Stress Table



Echo Cardiac Stress Table

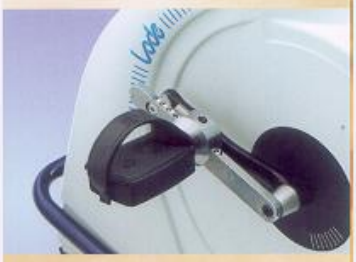
The Echo Cardiac Stress Table can be used for echo cardiology. By using a remote control, the test subject can be placed in a supine position with an additional 45 degrees rotation over the longitudinal axis. This transversal slope to the left brings the heart in the optimal position for the echo research and researcher. Due to a removable part of the back support (near the heart) a better view from the backside is possible. The back support is adjustable and the Angio can be slided back and forward to suit the leg length.

MRI Ergometer

MRI Ergometer

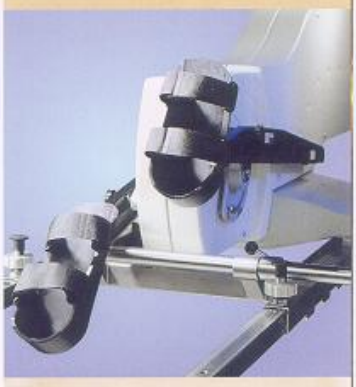
With this ergometer it is possible to perform an exercise test in the magnet. An ergometer on the table ensures minimal time between stress induction and imaging. The MRI ergometer can be used for both cardiac examinations and spectroscopy: for cardiac MR examinations, the MRI ergometer can be ordered with a pedal, circular or push/pull exercise movement. For spectroscopy MR examinations a MRI ergometer with up/down movement is available.

Modern designed meter for easy read-out of both the actual rpm and workload



Adjustable cranks

Optional Programmable Control Unit: with 2 displays



Up/down movement of the MRI ergometer

Imaging Ergometry systems	MCST with Angio Ergometer	Imaging Table with Angio Ergometer	ECST with Angio Ergometer	MRI Ergometer Circular	MRI Ergometer Up/Down	MRI Ergometer Push/Pull
						
Work output range						
- hyperbolic (W)	7 - 750 continuous	7 - 750 continuous	7 - 750 continuous	10 - 250	5 - 100	5 - 100
- linear (W)	7 - 750 continuous	7 - 750 continuous	7 - 750 continuous	10 - 250	5 - 100	5 - 100
- increments (W)	1	1	1	1	1	1
- peak load (W)	1000	1000	1000			
Braking system - electro - magnetic	eddy current	eddy current	eddy current	eddy current	eddy current	eddy current
Constant load	yes	yes	yes	yes	yes	yes
- rpm independent (rpm)	30 - 150	30 - 150	30 - 150	40 - 80	5 - 60	5 - 60
Control unit	external	external	external	external	external	external
- workload accuracy	7 - 100W +/- 3W 100 - 500W ≤3% 500 - 1000W ≤5%	7 - 100W +/- 3W 100 - 500W ≤3% 500 - 1000W ≤5%	7 - 100W +/- 3W 100 - 500W ≤3% 500 - 1000W ≤5%	10 - 100 W +/- 5W 100 - 250 W ≤ 5%	5 - 50 W +/- 5W 50 - 100 W ≤5%	5 - 50 W +/- 5W 50 - 100 W ≤5%
- functions	workload, rpm, time, distance, fixed torque	workload, rpm, time, distance, fixed torque	workload, rpm, time, distance, fixed torque	workload, rpm, time, distance, fixed torque	workload, rpm, time, distance, fixed torque	workload, rpm, time, distance, fixed torque
- protocols	opt.: HRC, 50 free	opt.: HRC, 50 free	opt.: HRC, 50 free	Åstrand, HRC, 50 free	Åstrand, HRC, 50 free	Åstrand, HRC, 50 free
- display (type)	LCD 2 x 16 char.	LCD 2 x 16 char.	LCD 2 x 16 char.	LCD 2 x 16 char. + 4 x 20 char.	LCD 2 x 16 char. + 4 x 20 char.	LCD 2 x 16 char. + 4 x 20 char.
- display setttings:	cust. selectable	cust. selectable	cust. selectable	cust. selectable	cust. selectable	cust. selectable
- workload (W)	7 - 1000	7 - 1000	7 - 1000	10 - 250	5 - 100	5 - 100
- rpm	0 - 255 digital 0 - 180 bargraph	0 - 255 digital 0 - 180 bargraph	0 - 255 digital 0 - 180 bargraph	0 - 255 digital 0 - 180 bargraph	0 - 255 digital 0 - 180 bargraph	0 - 255 digital 0 - 180 bargraph
- timer	yes	yes	yes	yes	yes	yes
- distance	yes	yes	yes	yes	yes	yes
- torque	yes	yes	yes	yes	yes	yes
Calibration	dynamic	dynamic	dynamic	dynamic	dynamic	dynamic
Interface	analog + digital	analog + digital	analog + digital	analog	analog	analog
Maximum patient weight	160 kg	160 kg	160 kg			
Dimensions						
L x W x H (cm)	208 x 92 x 77	204 x 60 x 75	218 x 75 x 85	135 x 50 x 50	135 x 50 x 50	135 x 50 x 50
Sitting height (cm)	76,5	74	63,5			
Weight (kg)	64	108	116	37	37	37
Weight incl. Angio ergometer (kg)	97	141	149			
Adjustability						
Backpanel (upwards)	0 - 32 °	0 - 75 °	0 - 32 °			
Legpanel (downwards)		0 - -43 °				
Angle complete table (sideways)			0 - 45 °			
Adjustability range Angio (for leg length)	400 mm	200 mm	400 mm			
Power requirements	115/230 VAC 50/60 Hz (130 VA)	115/230 VAC 50/60 Hz (130 VA)	115/230 VAC 50/60 Hz (130 VA)	115/230 VAC 50/60 Hz (130 VA)	115/230 VAC 50/60 Hz (130 VA)	115/230 VAC 50/60 Hz (130 VA)
Environmental conditions	*Operational*	*Operational*	*Operational*	*Operational*	*Operational*	*Operational*
- temperature °C	14 - 40 (57 - 104 °F)	14 - 40 (57 - 104 °F)	14 - 40 (57 - 104 °F)	14 - 40 (57 - 104 °F)	14 - 40 (57 - 104 °F)	14 - 40 (57 - 04 °F)
- humidity (non-condensing) (%)	30 - 90	30 - 90	30 - 90	30 - 90	30 - 90	30 - 90
- air pressure (kPa)	70 - 106	70 - 106	70 - 106	70 - 106	70 - 106	70 - 106
	Storage	*Storage*	*Storage*	*Storage*	*Storage*	*Storage*
- temperature °C	-25 - 70 (13 - 167 °F)	-25 - 70 (13 - 167 °F)	-25 - 70 (13 - 167 °F)	-25 - 70 (13 - 167 °F)	-25 - 70 (13 - 167 °F)	-25 - 70 (13 - 167 °F)
- humidity (non-condensing) (%)	10 - 95%	10 - 95%	10 - 95%	10 - 95%	10 - 95%	10 - 95%
- air pressure (kPa)	50 - 106	50 - 106	50 - 106	50 - 106	50 - 106	50 - 106
Standard & safety norms	1, 2, 3*	1, 2, 3, 4*	1, 2, 3*	1, 2, 3*	1, 2, 3*	1, 2, 3*
Options						
- programmable control unit	yes	yes	yes	included	included	included
- blood pressure measurement	yes	yes	yes			
- heart rate	yes	yes	yes			
- adjustable cranks	yes	yes	yes			
- rpm/watt meter	included	included	included			
- pedal shoes	included	included	included			
- Lode Ergometry Manager (LEM) software modules	yes	yes	yes			
- 0-watt start up system	yes	yes	yes			
- support for control unit	yes	yes	yes			
- calibrator	yes	yes	yes	yes	yes	yes

rpm = revolutions per minute, HRC = Heart Rate Controlled

changes without prior notice

* 1 = ISO 9001
2 = IEC 601-1
3 = DIN 13405
4 = FDA 510 K

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