



elmi Ltd.
laboratory equipment

2010/2011
Product Catalogue

Centrifuges



Mixers / Shakers



Thermostats



* World's most advanced liquid handling solutions



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Intelli-Mixer™

Market leading unique device designed to handle each and every type of test tube mixing with brilliant efficiency! No other device on the market can deliver the same efficiency processing small 0.5 ml test tubes and only one push of a button away run 50 ml tubes blotting then vortex 42 eppendorf tubes simultaneously!

This has become possible thanks to the intelligent patented digital driver that utilises the power of world's most advanced stepper motor and allows to program various cycles of mixing, vibrating and rotating.

18 Preset programs of mixing for various test tubes

2 Variable vortexing frequencies.

3 Custom programs that user can design and save in a flash memory.

2 Specially designed blotting modes for Western blot protocol. Patented guaranteed efficiency!

3 Optional length of the rack.

Supporting all test tubes from 0.5 ml up to 50 ml.

Standby mode for power saving.

12 Volts - safe power.

3 in 1
ROTATOR, VORTEX & BLOTTER



Based on V-Spin patented technology.

World's most advanced mixing and liquid handling technology.



MIXER

Preset mix programs



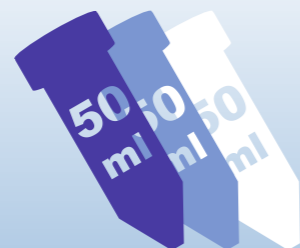
BLOTTER

Ultrasonic patented vibration



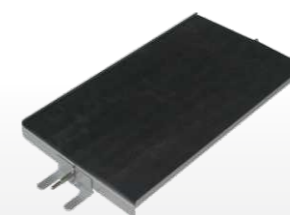
VORTEX

Adjustable ultra strong vortex



Accessories

Test tube diameters	Number of test tubes in the rack		
	RM-2S	RM-2M	RM-2L
8-11 mm	28	32	42
13 mm	24	28	38
16 mm	14	16	22
30 mm	8	10	14



Rocking platform



Up to 38x 13mm places



11, 13, 16, 30 (mm) combined rack



Up to 42x 11mm places



Up to 12x 30mm places Blotting and Hybridisation Rack



Up to 14x 30mm places



Up to 22x 16mm places

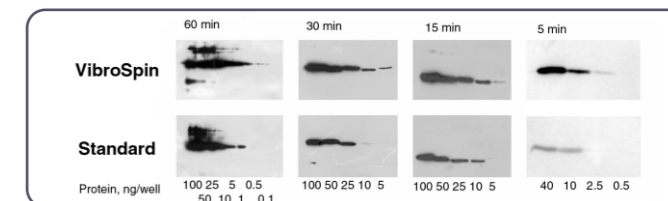


Up to 38x 13mm places

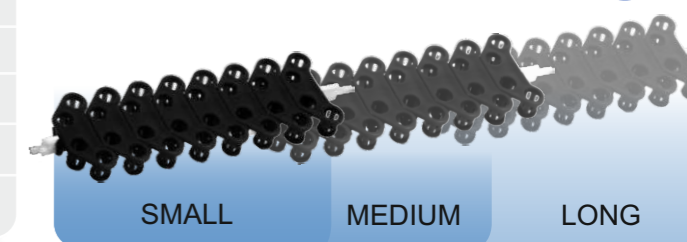
Western Blot protocol

World's leading patented blotting system.

- ◆ **better sensitivity:** according to our studies, the sensitivity of the method is up to 20 times higher;
- ◆ **higher specificity:** reduces cross-reactivity up to 4 times;
- ◆ **faster procedure:** the method is 3 to 5 times faster;
- ◆ **significant economy:** the usage of reagents is up to 12 times less. In case of expensive or unique antibody it may play a crucial role in your experiments.



Optional Rack Length



Technical specifications

Rotation speed	RPM	from 1 up to 99
Rotation speed settings step	RPM	1
Overall number of operation regimes		23
Environmental temperature	°C	from 4 up to 50
Relative air humidity (at 20 °C)	%	up to 80
Power supply adaptor	⊖ ⊕	DC in 12V, 1000 mA



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Vortex mixer V-3

Accessories



 **Anti-vibration system**

VORTEX V-3 is a pretty looking and very easy handled vortex mixer for any type of test tubes of up to 50 ml volume.

PRODUCT FEATURES

- Amazingly strong.
- Touch or hands free mode.
- Simple vortex intensity regulation.
- 2 exchangeable vortexing adapters.
- Quiet and maintenance free mechanism.
- Half-sphere shape for maximal stability on the desktop.

PRODUCT BENEFITS

V-3 is simple and handy solution for current laboratory tasks.

SPECIFICATIONS

Rotor rotation speed	RPM	from 50 up to 4000
Vortex rotor vibration amplitude	mm	4
Dimensions (D x H)	mm	130 x 60
Power supply adapter	V	220-230 / 12 VDC
Weight	Kg	0.6



Mixing adapter for 12 test tubes 1.5 - 2ml.



Universal mixing adapter for test tubes 0.5 - 50ml.

Digital orbital shakers DOS series


The 'Sky Line' generation of orbital and rocking shakers is amazingly flexible, reliable and high performance line of universal laboratory equipment. Great selection of accessories and attachments allow easily accommodate shakers to different laboratory applications. Nice design, high performance, user-friendly interface and maintenance-free non-stop operation make this line of shakers perfectly applicable to vast variety of medical, chemical, biological and other laboratories.

Digital interface



FEATURES

- Optimal platform rotation amplitude for intensive mixing.
- Advanced stepper motor control system.
- Digital timer.
- High precision digital rotation speed controller.
- Great selection of different accessories and attachments.
- Sound notification when mixing completed.
- Memory onboard for storing user settings.
- Possibility of continuous operation non-stop during days and days.



Anti-vibration system

Analogue interface

FEATURES

- Optimal platform rotation amplitude for intensive mixing.
- Simple and easy to operate controls.
- High precision rotation speed controller.
- Great selection of different accessories and attachments.
- Possibility of continuous operation non-stop during days and days.

Digital rocking shaker

Weight distribution on the platform



FEATURES

- Variable shaking angle from 1up to 12 degrees.
- Shaking speed from 1 up to 50 shakes per minute
- Soft run stepping motor for top performance.
- Digital timer.
- High precision operation controller.
- Sound notification of timer program end.
- Memory onboard for storing user settings.
- Quiet and maintenance free mechanism insures possibility of continuous operation non-stop during days and days.



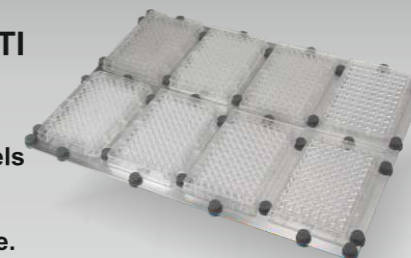
Attachable multi-level platforms

Accessories



ATTACHABLE MULTI-LEVEL PLATFORM FOR DRS-12

Allows to attach several levels to the rocking platform to increase the capacity of shaker. Is very effective and handy to operate.



MICROPLATE ADAPTER
Insures maximal convenience and efficiency working with different kinds of microplates. Depending on the size of a platform accommodates up to 8 and up to 4 micropates

UNIVERSAL ROLLER CLIPS
Very effective universal solution for fixing different flat-bottom laboratory flasks and extra high and unstable laboratory flasks.

UNIVERSAL MAGNETIC CLIPS
Excellent universal solution for easy and fast fixation of any kind of flat bottom laboratory flasks and bottles. Can be used in a combination with roller clips.



SPECIFICATIONS

	DOS-20S	DOS-10M/DOS-20M	DOS-10L/DOS-20L	DRS-12
Size of working space of platform:	mm 168 x 168	355 x 235	418 x 297	255 x 305
Amplitude of rotation of the platform(rocking angle):	mm(degree) 20	10 / 20	10 / 20	(1 - 12)
Type of rotation:	orbital	orbital	orbital	rocking
Time controller:	min 1-999 & timer off	1-999 & timer off	1-999 & timer off	1-999 & timer off
Speed of rotation (rocking):	RPM 10 - 250	from 50 to 500 / 300	from 50 to 500 / 300	(from 1 to 50)
Environmental temperature:	°C from +4 to +45	from +4 to +45	from +4 to +45	from +4 to +45
Relative moisture of atmosphere (at the temperature of 20 °C):	% up to 80	up to 80	up to 80	up to 80
Power supply (adapter):	⊖ ⊕ ⊖ (DC in 12V, 1000 mA)	(DC in 12V, 1000 mA)	(DC in 12V, 1000 mA)	(DC in 12V, 1000 mA)
Size of the device (length x width x height):	mm 193 x 170 x 70	347 x 275 x 100	420 x 310 x 100	307 x 275 x 110
Weight:	kg 1,4	5,5	7,5	3,5
	DOS-3M	S-3.02M.10M/S-3.02M.20M	S-3.02M.10L/S-3.02M.20L	
Size of working space of platform:	mm 355 x 235	355 x 235	418 x 297	
Amplitude of rotation of the platform	mm 3	10 / 20	10 / 20	
Time controller:	min 1-999 & timer off			
Type of rotation:	orbital	orbital	orbital	
Speed of rotation	RPM from 50 to 1100	from 50 to 500 / 300	from 50 to 500 / 300	
Environmental temperature:	°C from +4 to +45	from +4 to +45	from +4 to +45	
Relative moisture of atmosphere (at the temperature of 20 °C):	% up to 80	up to 80	up to 80	
Power supply (adapter)	⊖ ⊕ ⊖ (DC in 12V, 1000 mA)	(DC in 12V, 1000 mA)	(DC in 12V, 1000 mA)	
Size of the device (length x width x height)	mm 347 x 275 x 100	347 x 275 x 100	420 x 310 x 100	
Weight	kg 5,5	5,5	7,5	



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Digital thermostatic shaker DTS-2 and DTS-4

Two optional scales: Celsius/Farenheit.

Bi-directional heating.



Anti-vibration system

FEATURES



2 or 4 IMMUNEPLATES

Allowing to use simultaneously 2 or 4 microplates, digital thermostatic shaker DTS gives a beautiful increase in processed volume, while saving the lab's space and keeping the quality and performance on the highest level.



1.5 mm ROTATION ORBIT.

Optimally chosen orbit of rotation gives an exceptionally good performance while working with any kind of standard microplate.



BI-DIRRECTIONAL HEATING SYSTEM.

The hermetic thermostatic container of the digital thermostatic shakers DTS is equipped with a bi-directional heating system with heaters in the platform and in the lid heating the whole volume uniformly. This insures undependability of the room temperature, excellent temperature uniformity across the plates and eliminates any condensation, giving only the best results even if micro-volumes of samples are used.



SIMULTANEOUS DISPLAY OF ALL THE ADJUSTMENTS AND PARAMETERS.

By having a separate display for each adjustable parameter, digital thermostatic shakers DTS make it amazingly simple to control Time, Temperature and RPM settings, giving maximal comfort and flexibility.



AUTONOMOUS MEMORY FOR STORING USER SETTINGS.

Even if the machine is unplugged from the power supply, all the user settings will remain in the energy-independent memory, adding extra protection and user comfort.



TECHNICALLY GUARANTEED ABILITY FOR ROBUST DURABLE OPERATION.

All the elements of the Digital Thermostatic Shakers DTS are specially designed for daily hard-duty, long-lasting operation, that makes it a reliable partner in the lab.

Digital thermostat MT-2

Smooth temperature gradient.

Brilliant accuracy.



MT-2 is great accuracy thermostat for 2x different micro-plates. Advanced double heating system which insures heating from the lid and from the platform together with the hermetic aluminum container and digital platinum sensors allow to achieve incredible heating accuracy.

FEATURES

- ▶ Bi-directional heating system
- ▶ 2 microplates capacity
- ▶ Two independent digital timers
- ▶ Alarm signal indication timer programs' end
- ▶ Celsius / Fahrenheit temperature management

BENEFITS

Specially designed bi-directional heating system and user friendly interface integrates the device perfectly into various analytical laboratory applications.

TECHNICAL SPECIFICATIONS

Temperature can be set in °C or °F		DTS-2	DTS-4	MT-2
Maximal number of microplates on the platform.		2	4	2
Standard supported microplates dimensions	mm	86 x 128 x 15	86 x 128 x 15	86 x 128 x 15
Temperature range:	°C	ambient +5 to 60	ambient +5 to 60	ambient +5 to 60
Temperature control accuracy	°C	0,1	0,1	0,1
Platform rotation type		orbital	orbital	—
Platform rotation orbit	mm	1.5	1.5	—
Platform rotation speed	RPM	100 - 1300	100 - 1300	—
Timer		continuos / 1min - 999min	continuos / 1min - 999min	continuos / 1min - 999min
Ambient temperature range	°C	from +4 to +40	from +4 to +40	from +4 to +40
Relative atmosphere moisture at 20 °C	%	max 80	max 80	max 80
Power supply		220V; 50/60Hz	220V; 50/60Hz	220V; 50/60Hz
Power consumption	W	max 90	max 125	max 75
External dimensions (length x width x height)	mm	347 x 275 x 115	420 x 310 x 115	347 x 275 x 115
Weight	Kg	6.2	7.8	5.3



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Water bath thermostats TW-2.02 and TW-2.03

TW-2.02 and TW-2.03 are 8.5 liter stainless steel and plastic bath high accuracy thermostats.

PRODUCT FEATURES

- High accuracy defined temperature control in the bath.
- Automatic water level detection for heater protection.
- Variable water circulation speed.
- External water circulation pump for heating outer objects.
- Intensive water intermixing for accurate temperature maintenance.
- Slim design for convenient disassembling and cleaning.

PRODUCT BENEFITS

TW-2.03 is very easy handled, reliable and high performance thermostat for various laboratory needs.

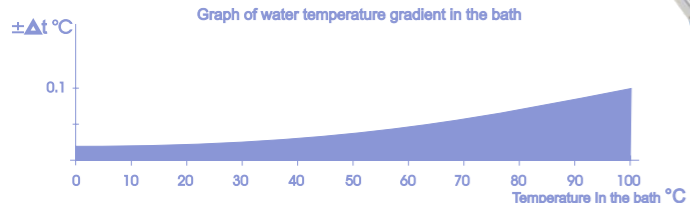
**WATER THERMOSTAT
TW-2.02
UP TO 100°C**



**WATER THERMOSTAT
TW-2.03
UP TO 90°C**



Graph of water temperature gradient in the bath



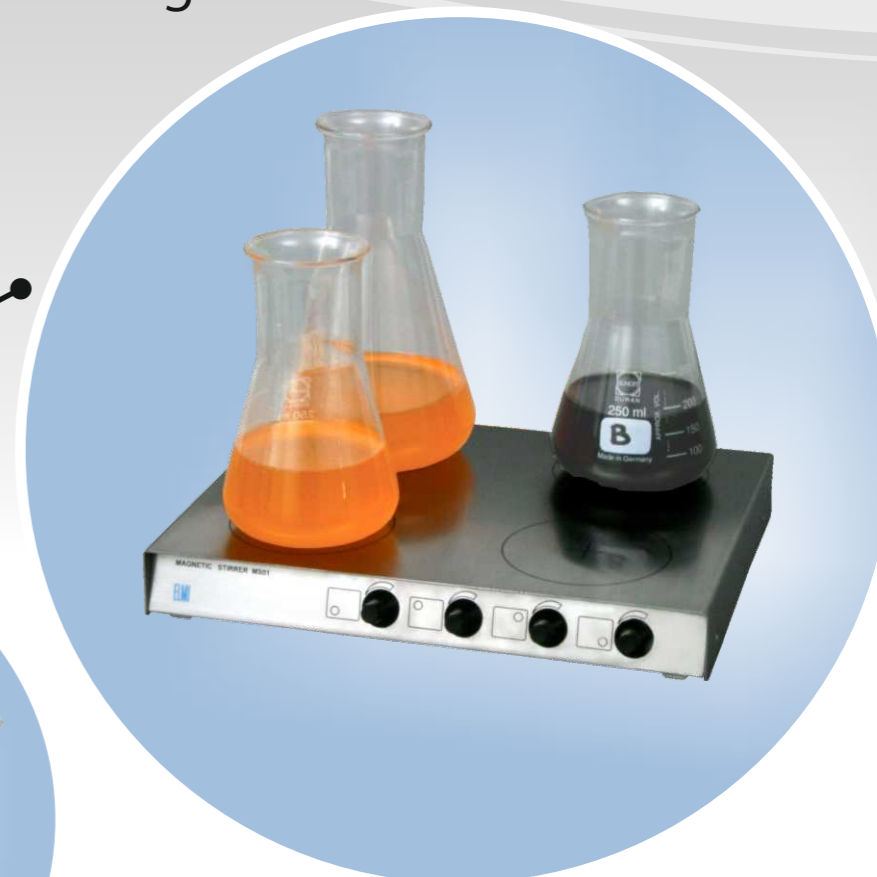
WATER THERMOSTATS SPECIFICATIONS

SPECIFICATIONS		TW - 2.02	TW - 2.03
Temperature range in the bath:	°C	from environmental to 100	from environmental to 90
Accuracy of temperature maintenance in the bath:	°C	±0,1	±0,1
Max time of set temperature achievement:	min	50	50
Max bath capacity	L	8,5	8,5
Temperature stabilization above the environmental	°C	3	3
Water circulation speed (variable)	L/min	2-5	2-5
Voltage and frequency:	V; Hz	220V; 50Hz	220V; 50Hz
Power consumption	κW	up to 1,5	up to 1,5
Size of the device (length x width x height)	mm	320 x 265 x 260	320 x 265 x 260
		4,9	2,8

Magnetic stirrer MS-01

Motor driven extra strong field.

Compatible



MAGNETIC STIRRER MS01 is a powerful and simple to use four position stainless still magnetic stirrer.

PRODUCT FEATURES

- Four positions for effective mixing in different size flat bottom laboratory flasks.
- Compatibility with ELMI thermostat TW-2.03
- Stainless still highly resistible body.
- Can be easily integrated in different lab processes.

PRODUCT BENEFITS

It is specially designed to operate with ELMI water thermostat TW-2 series. Together with TW-2.03 heating functions it becomes possible to maintain highly accurate temperature maintenance as well as mixing efficiency control. Reliability, simple operation and noiseless operation make MS01 perfect assistant in any laboratory.



**MAGNETIC STIRRER MS-01
CAN BE USED IN
A COMBINATION WITH
WATER THERMO-BATH**

MAGNETIC STIRRER MS01 SPECIFICATIONS

Speed range	RPM	80 - 1 500
Liquid volume range for one mixing place	L	from 0.2 up to 2L
Power adapter output	⊖ ⊕	DC in 12V, 1 000 mA
Dimensions (length x width x height)	mm	210 x 270 x 35
Weight	kg	1.8



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FUGAMIX™ family

“Fugamix” It is a unique device, designed to combine two most frequently used functions: mixing and spindown in a single machine!
This is an absolutely unique system that can extremely efficiently handle both functions manually or automated - resulting huge savings in time, workspace and efforts.



CM-50M
CENTRIFUGE-MIXER

- 15 000 RPM.
- 9 levels of mixing.
- 2 Automated sample preparation spin-mix-spin programs.
- Rapid spin function.
- Digital timer.
- Automatic rotor detection.
- Rotor imbalance detection.
- 3 optional rotors selection.
- Exceptionally low sample overheating (max 10°C running on max speed).

V-Spin™ technology
World's most advanced Liquid handling Technology

Lid lock

Vortex mixer
Mixer on/off button allows to start stop vortexing of the whole rotor with one of the 9 optional speeds.

Centrifugation
Start/Stop centrifugation with selected speed as well as rapid spin mode.

Low noise and heating

Rotor recognition

Reduced volumes
By the simple practice of spinning samples before and after mixing, lower reagent volumes can be used without any increase in sample error, and CM-50M was developed specifically for this purpose.

- powerful G force
- timer for accurate control of spin and mix time
- accurate control of spin speed
- 9 stage control of mixing strength

Applications

- PCR diagnostic laboratories
- biochemical clinical laboratories
- preparing samples prior to PCR reactions, gel electrophoresis and enzyme reactions
- immunoprecipitations
- cell permeabilisation by chelating or hydrophobic agents for reaction in situ
- low solubility drug testing
- cell washing from culture media after fermentation
- molecular and cell biology,
- immunology, biochemistry,
- physical and colloidal chemistry,
- study of nanoparticles,
- analytical chemistry.

FUGAMIX™ family



CM-12M
CENTRIFUGE-MIXER

- 12 000 RPM.
- 9 levels of mixing.
- 2 Automated sample preparation spin-mix-spin programs.
- Rapid spin function.
- Digital timer.
- Automatic rotor detection.
- Rotor imbalance detection.
- 2 optional rotors selection.
- Exceptionally low sample overheating (max 8°C running on max speed).

CM-70M07
CENTRIFUGE-MIXER

CM-70M09
CENTRIFUGE MIXER

- 7 000 / 9 000 RPM
- 6 levels of mixing.
- Automated sample preparation spin-mix-spin program.
- Digital timer.
- 2 optional rotors selection.
- Optical lid lock.

Lid lock
Optical

Accessories

Rotor 50.01	CM-50M CENTRIFUGE-MIXER	Rotor 50.02	Rotor 50.03	Mix rotor
Universal high speed rotor for 12 test tubes 0.2 - 2 ml. Patent pending magnetic cover cap insures the optimum air flow and incredibly low sample heating.		Specially designed aluminum rotor for high speed centrifugation and mixing of 12 test tubes 0.2 - 2 ml.	Universal PCR strip rotor for two strips of 0.2 ml.	Universal aluminum rotor for test tubes from 0.2 up to 2 ml

SPECIFICATIONS

		CM70M-07	CM70M-09	CM70M-12	CM-50M
Rotor rotation speed	RPM	from 2000 to 7000	from 4000 to 9000	from 1000 up to 12000	from 1000 up to 15000
Maximal centrifugal force	RCF	3200	5200	10000	15300
Timer	min	from 0.1 up to 30	from 0.1 up to 30	from 0.1 up to 99	from 0.1 up to 99
Number of vortex regimes		6	6	9	9
Programmable Sample Preparation mode		1	1	3	3
Dimensions (L x W x H)	mm	190 x 170 x 115	190 x 170 x 115	200x180x145	200x180x145
Power supply adapter	V	220-230 / 24 VAC	220-230 / 24 VAC	220-230 / 24 VAC	220-230 / 24 VAC
Weight	Kg	1.3	1.3	1.5	1.5



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Centrifuge CM-6MT

One of the most compact and versatile centrifuges dedicated to insure customer satisfaction in daily laboratory works. Exceptionally slim design accomplished with the transparent lid that provides both convenience and guaranteed safety.

3500 RPM (2300 RCF) Rapid acceleration/brake time.

Great selection of 4 optional rotors.

Easy to navigate digital control panel.

RPM or RCF optional indication.

Automatic lid lock.

Very low test tubes heating +5 C' above ambient.

Rotor imbalance digital sensor.

Sound notification when centrifugation is accomplished.

Exceptionally quiet operation

Very long service-free lifetime proven in dozens of labs world wide.



Transparent lid.

Exceptionally compact.

Rotor imbalance sensor

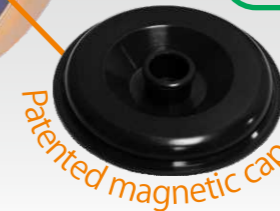
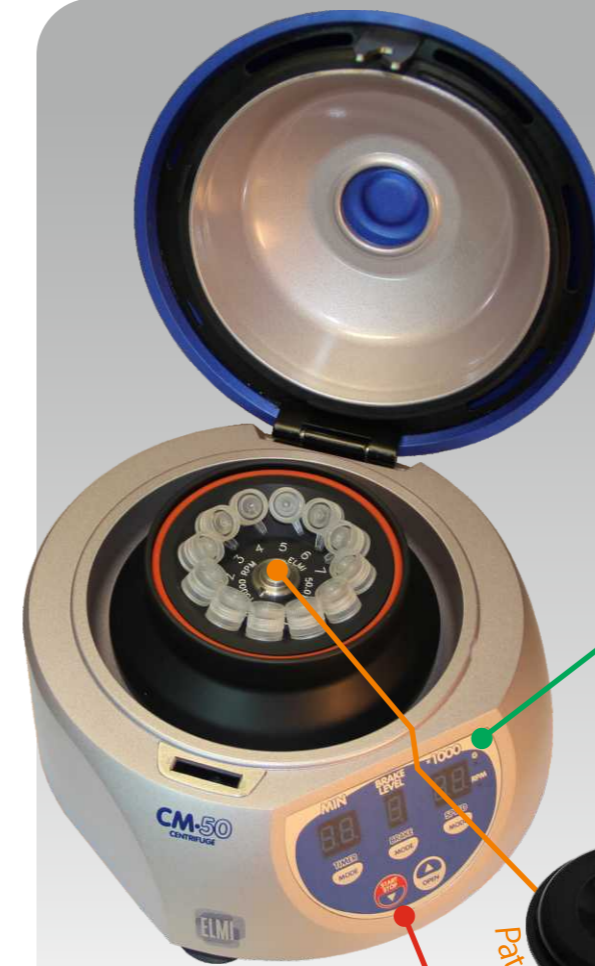
Industry's most advanced service-free drive.

Centrifuge CM-50

CM-50 is one of the most compact and powerful mini-centrifuges available on the market. Because of the patented air chamber engineering with magnetic rotor cap also the noise and heat-up parameters are much lower than industry's highest standards. And all that technology is powered by only 24 volts which provides additional safety.

CM-50
CENTRIFUGE

- 15 000 RPM.
- 15 300 RCF.
- Exceptionally low noise level at max speed.
- Secure lid lock.
- Rapid spin function.
- Digital timer.
- 5 levels of rotor brake.
- Rotor imbalance detection.
- Patented magnetic rotor cap.
- RPM or G-force indication options.
- Exceptionally low sample overheating (max 10°C above ambient running at max speed).



Lid lock



Rotor imbalance sensor



Low noise and heating

Centrifugation

Start/Stop centrifugation with selected speed/brake as well as rapid spin mode.

Accessories

Rotor 6M



Universal swing out rotor for 12 test tubes.
Max test tubes volume: 15ml
Max test tube size: 17 x 150 mm
Max centrifugation speed: 3500 RPM

Rotor 6M.01



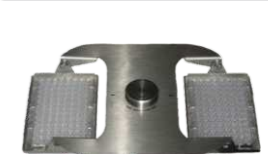
Universal swing out rotor for 4 test tubes.
Max test tubes volume: 50ml
Max test tube size: 30 x 135 mm
Max centrifugation speed: 3500 RPM

Rotor 6M.02



Universal swing out rotor for 24 test tubes.
Max test tubes volume: 15ml
Max test tube size: 17 x 150 mm
Max centrifugation speed: 3500 RPM

Rotor 6M.04



Universal swing out rotor for 2 standard micro plates.
Max centrifugation speed: 2000 RPM

Rotor 50.01 **CM-50**
CENTRIFUGE



Universal fixed 45 degree angle rotor for 12 test tubes 0.2 - 2 ml. Patented magnetic cover cap insures the optimal air flow and incredibly low sample heating.

TECHNICAL SPECIFICATIONS

		CM-6MT	CM-50
Rotor rotation speed	RPM	100 - 3500	1000 - 15 000
Maximal centrifugal force	RCF	2300	15 300
Working range of temperatures	°C	from + 4 to +40	from + 4 to +40
Relative air moisture at 20 °C	%	80	80
Voltage and frequency	V,Hz	220, 50	24 VDC
Maximal consumable power	W	320	120
Size of the device (L x W x H)	mm	430 x 400 x185	200x180x145
Weight	kg	10	3,1



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* World's most advanced liquid handling solutions