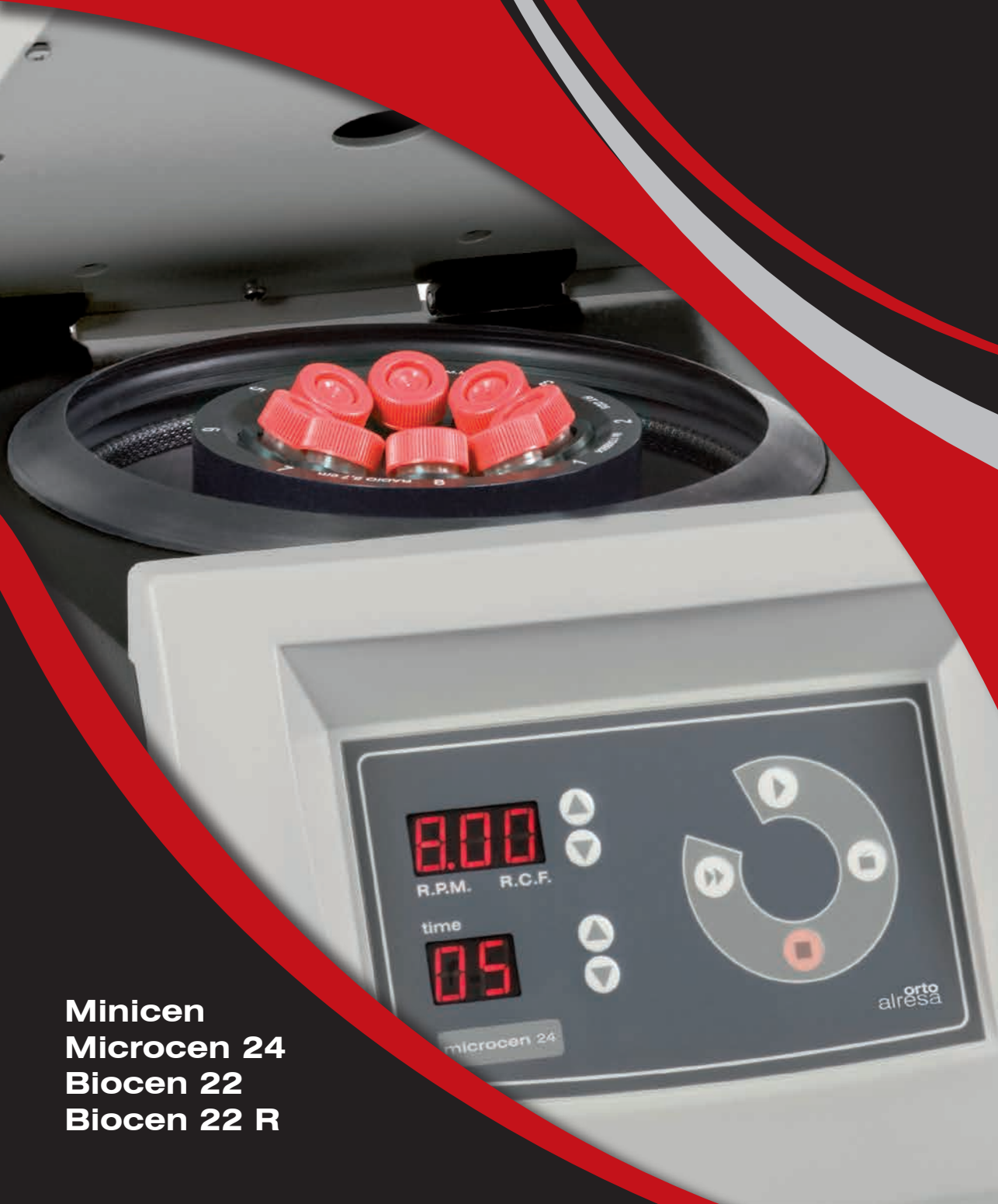


orto
alresa
About centrifugation



Minicen
Microcen 24
Biocen 22
Biocen 22 R

8.00

R.P.M. R.C.F.

time

05

microcen 24

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THE COMPANY

Ortoalresa was born in Madrid, Spain, in 1949 as local manufacturer of laboratory equipment. Almost 70 years later, after a lot of hard work, confidence and passion for what we do, we have become a dynamic and innovative company with global presence, which has led us to become one of the European manufacturers benchmark.

Our DNA leads us to search for solutions based on innovation and sustainability, and we are chosen as the best option for laboratories due to the quality of our products and services.

We collaborate with our clients to let them carry out their processes in a simple, safe and efficient manner. Placing functional equipment at their disposal to facilitate everyday work and providing them with a rapid answer and monitoring of their complaints, questions and queries.

Our company philosophy conditions how we understand our productive processes, from design to recycling, specialised assistance and environmental commitment, compliant with ISO 9001 and 13485 standards.

We are the present and the future in centrifugation for laboratories, where the integration of quality, reliability and simplicity are top priorities.

ENVIRONMENTAL RESPONSIBILITY

Our commitment to the environment implies a responsibility that can be seen at all levels: from production processes to management.

We use materials that are coherent with this concept, enabling our teams to include more than 95% recyclable components, thus prolonging the life of raw materials and avoiding the exhaustion of natural resources.




We avoid the use of dangerous substances in the manufacturing processes, complying with the RoHS Directive, on the restriction of hazardous substances.



In our sustainable manufacturing line, in refrigeration systems we only use fluorinated gases of low impact on the ozone layer in the centrifuges, i.e., those that produce the least greenhouse effect compared with commonly used products. In this sense, we have anticipated the coming into force of regulations on new gases, incorporating them into our equipment before they become mandatory. Thus, we ensure that equipment manufactured before these regulations come into force can be easily maintained.

Comparative chart of equipment

	Minicen	Microcen 24	Biocen 22	Biocen 22 R
Max. capacity	12 x 1,5-2 ml.	10 x 15 ml.	24 x 1,5-2 ml.	8 x 15 ml.
Refrigerated/Heated	Air cooling	Air cooling	Air cooling	
Pre-cooling program	-	-	-	✓
Type of screen	LCD	LED	LED	LCD
Automatic rotor recognition	-	-	-	✓
Acceleration/braking programmable	-	3 steps	3 steps	175 steps
PCBS (1)	-	-	-	✓
Programmable memories	10	1	1	16
Acoustic and visual messages	✓	✓	✓	✓
Induction motor, brushless	✓	✓	✓	✓
Microprocessor controlled	✓	✓	✓	✓
PC connection	✓	-	-	-
Rotors list on memory	-	✓	✓	✓
Automatic open lid programmable	✓	✓	✓	-
Unbalance detection and switch off	✓	✓	✓	✓
Port in the lid for calibration	✓	✓	✓	✓
Automatic lid lock system motorized	✓	✓	✓	✓
Chamber of centrifugation in stainless steel	-	✓	✓	✓

LED Equipment provided with LED screen.

LCD Equipment provided with LCD screen.

 Refrigerated centrifuge.

 PCBS (1): Progressive Controlled Braking System.

 Centrifuge available with IVD marking.

 Package - Close configuration: centrifuge + remarked rotor.

Which centrifuge it is suitable for my tubes?



PCR strips 0,2 ml.

Minicen
Biocen 22
Biocen 22 R ❄️

Minicen
Microcen 24
Biocen 22
❄️ Biocen 22 R

Microtubes



5 ml. conical

Biocen 22
Biocen 22 R ❄️

Microcen 24
❄️ Biocen 22 R

5 ml. / 5 ml. blood s.
10 ml. / 10 ml. blood s.
15 ml. / 15 ml. conical



IVD LCD

MINICEN

Max. capacity: 12 x 1,5-2 ml.

Max. speed: 15.596 xg/15.000 RPM

- Small footprint: 4 kg. of weight.

LCD screen:

- Shows RPM/ RCF, time, rotor spinning and lid status.
- Speed programming in 100 RPM/100 xg steps.
- Timer from 30 sec. to 999 min. programmable in 1 sec. steps and hold position.
- Timer with countdown at time set.
- Several acoustic and visual messages warning the user the device situation.

Easy to use

- Microprocessor controlled.
- PC connection by USB.
- Induction motor maintenance free (brushless).
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option RPM/ RCF adjustment along the run
- Automatic open lid.
- Last values remain in memory.

Safety

- Lid provided with security systems:
 - Automatic lid lock system, motorized.
 - Emergency lid-lock release.
 - Locking and protection against opening along run.
 - Lid dropping protection.
 - Port in the lid for calibration and operation checking.
- Unbalance detection and switch off.
- Rotors can be removed with the lid closed.
- Rotors and adapters autoclavable, easy to install by the user.
- Forced ventilation to reduce temperature increasing.

Accessories



Package

	INCLUDED		OPTIONAL	
	RT 255		RT 263	
ROTOR	ANGLE FIXED 30 °		ANGLE FIXED 30 °	
Max. capacity	12 x 1,5-2 ml.		16 x 0,2 ml.	
RPM Max.	15.000		15.000	
Radius (mm)	62		52	
RCF Max. (xg)	15.596		13.080	
SAMPLE VOLUME	ADAPTERS		ADAPTERS	
	Tubes	Ref.	Tubes	Ref.
Microtubes 1,5-2 ml.	12	-	-	-
Microtubes 0,5-0,6 ml.	12	RE 509	-	-
Microtubes 0,2-0,4 ml.	12	RE 510	16	-

MICROCEN 24

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Max. capacity: 10 x 15 ml.

Max. speed: 6.511 xg / 8.000 RPM

LED screen:

- Shows RPM/ RCF and time.
- Speed programming in 50 RPM/ 10 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 1 to 99 min. programmable in 1 min. steps and hold position.
- Acceleration and deceleration control in 3 steps: fast, soft and free.
- Acoustic and visual messages on screen warning the user the equipment status.



IVD LED

Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Free/locked adjustment of RPM/ RCF along the run.
- Automatic open lid, programmable.
- Last values remain in memory.
- Over-speed protection.

Safety

- Lid provided with security systems:
 - Automatic lid lock system, motorized. Emergency lid-lock release.
 - Locking and protection against opening along run.
 - Lid dropping protection.
 - Port in the lid for calibration and operation checking.
- Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors and adapters autoclavable, easy to install by the user.
- Forced ventilation to reduce temperature increasing
- Automatic disconnection for energy saving, with deactivation option.

Accessories



Package

INCLUDED

RT 246



ANGLE FIXED 30 °

ROTOR	ANGLE FIXED 30 °
Max. capacity	8x15 ml.
RPM Max.	8.000
Radius (mm)	91
RCF Max. (xg)	6.511

OPTIONAL

RT 247



ANGLE FIXED 30 °

ROTOR	ANGLE FIXED 30 °
Max. capacity	12x5 ml.
RPM Max.	8.000
Radius (mm)	72
RCF Max. (xg)	5.152

RT 248



ANGLE FIXED 30 °

ROTOR	ANGLE FIXED 30 °
Max. capacity	10x15 ml.
RPM Max.	8.000
Radius (mm)	89
RCF Max. (xg)	6.368

SAMPLE VOLUME	ADAPTERS	
	Tubes	Ref.
15 ml. /10 ml. blood sample	8	-
15 ml conical	8	RE 459
10 ml. / 7/10 ml. blood sample	8	RE 371
5 ml. / 5 ml. blood sample	8	RE 377
Microtubes 1,5-2 ml.	8	RE 513
Microtubes 0,5-0,6 ml.	8	RE 514
Microtubes 0,2-0,4 ml.	8	RE 515

ADAPTERS		ADAPTERS	
Tubes	Ref.	Tubes	Ref.
-	-	10	-
-	-	-	-
-	-	10	RE 470
12	-	10	RE 471
-	-	-	-
-	-	-	-
-	-	-	-



IVD LED

BIOECEN 22

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Max. capacity: 24 x 2 ml./ 12 x 5 ml. **Max. speed:** 21.885 xg / 15.000 RPM

LED screen:

- Shows RPM/ RCF and time.
- Speed programming in 50 RPM/ 10 xg steps.
- Timer countdown/up from “0” or at “set RPM/ RCF” for reproducible tests.
- Timer from 1 to 99 min. programmable in 1 min. steps and hold position.
- Acceleration and deceleration control in 3 steps: fast, soft and free.
- Acoustic and visual messages on screen warning the user the equipment status.

Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Free/locked adjustment of RPM/ RCF along the run.
- Automatic open lid, programmable.
- Last values remain in memory.
- Over-speed protection.

Safety

- Lid provided with security systems:
 - Automatic lid lock system, motorized.
 - Emergency lid-lock release.
 - Locking and protection against opening along run.
 - Lid dropping protection.
 - Port in the lid for calibration and operation checking.
- Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors can be removed with the lid closed.
- Rotors and adapters autoclavable, easy to install by the user.
- Forced ventilation to reduce temperature increasing
- Automatic disconnection for energy saving, with deactivation option.

Accessories

	RT 227		RT 228		RT 229		RT 254	
								
			(1)				(2)	
ROTOR	ANGLE FIXED 45 °		HORIZONTAL		ANGLE FIXED 45 °		ANGLE FIXED 45 °	
Max. capacity	24x1,5-2 ml		24x1,5x75 mm		32x0,2 ml		12 x 5 ml	
RPM Max.	15.000		15.000		15.000		15.000	
Radius (mm)	82		87		55		87	
RCF Max. (xg)	20.627		21.885		13.835		21.884	
SAMPLE VOLUME	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.
5 ml. conical / screw cap	-	-	-	-	-	-	12/6	-
1,5x75 mm. capillaries	-	-	24	-	-	-	-	-
Microtubes 1,5-2 ml.	24	-	-	-	-	-	12	RE 506
Microtubes 0,5-0,6 ml.	24	RE 305	-	-	-	-	12	RE 507
Microtubes 0,2-0,4 ml.	24	RE 304	-	-	32x0,2	-	12	RE 508

(1) Includes microhaematocrit reader card. (2) Available adapters for cryotubes.



BIOCEN 22 R

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Max. capacity: 8 x 15 ml.

Max. speed: 31.865 xg / 18.100 RPM

LCD screen:

- Shows RPM/RCF, time, temperature and acceleration/deceleration (PCBS).
- Speed programming in 50 RPM/ 50 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 1 to 99 min. programmable in 5 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- 16 programmable memories.
- Several acoustic and visual messages warning the user the device situation.



Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Free/locked adjustment of RPM/ RCF along the run.
- Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

- Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors can be removed with the lid closed.
- Rotors and adapters autoclavable, easy to install by the user.
- Automatic disconnection for energy saving up to 8 h.

Safety

- Lid provided with security systems:
 - Automatic lid lock system, motorized.
 - Emergency lid-lock release.
 - Locking and protection against opening along run.
 - Lid dropping protection.
 - Port in the lid for calibration and operation checking.

Refrigeration

- Remains the refrigeration after centrifugation process.
- Precooling program with rotor spinning and temperature selectable.
- Guarantee 4 °C at maximum RPM.
- Temperature range from -20°C (-4°F) to 40°C (104°F) in 1°C steps.
- Temperature sensor inside the chamber.
- Gas R 449A HFO (CFC free).

Accessories

	RT 224		RT 222		RT 252		RT 223	
ROTOR	ANGLE FIXED 45 °		ANGLE FIXED 45 °		ANGLE FIXED 45 °		ANGLE FIXED 30 °	
Max. capacity	32 x 0,2 ml		24x1,5-2 ml		12 x 5 ml		8x15 ml	
RPM Max.	18.100		18.100		18.100		8.000	
Radius (mm)	55		82		87		91	
RCF Max. (xg)	20.145		30.034		31.865		6.511	
Min. temp. at max. speed (°C)	-1		0		4		-3	
SAMPLE VOLUME	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.
15 ml.	-	-	-	-	-	-	8	-
15 ml. conical	-	-	-	-	-	-	8	-
10 ml.	-	-	-	-	-	-	8	RE 371
10 ml. blood sample	-	-	-	-	-	-	8	-
10 ml. (hs)	-	-	-	-	-	-	8	RE 398
7/10 ml. blood sample	-	-	-	-	-	-	8	RE 371
5 ml.	-	-	-	-	-	-	8	RE 377
5 ml. conical	-	-	-	-	12	-	-	-
5 ml. conical screw cap	-	-	-	-	6	-	-	-
5 ml. blood sample	-	-	-	-	-	-	8	RE 377
Microtubes 1,5 - 2 ml.	-	-	24	-	12	RE 506	8	RE 513
Microtubes 0,5 - 0,6 ml.	-	-	24	RE 305	12	RE 507	8	RE 514
Microtubes 0,2 - 0,4 ml.	32 x 0,2	-	24	RE 304	12	RE 508	8	RE 515
Cryotubes	-	-	-	-	12	RE 537	-	-

Directives & standards

COMPANY:

Standards

ISO 9001
ISO 13485
ISO 14971

Standards

EN-61010-1
EN-61010-2-020
EN-61326-2-6
EN-61326-1

PACKAGING:

ISPM 15

Directives

94/62/EC & 2004/12 EC

PRODUCTS:

Directives

2011/65/EU
2012/19/EU
2014/30/UE
2014/35/UE
98/79/CE

Regulation

(EC) 1005/2009
(EU) 517/2014

GOODS TRANSPORT:

Regulation

300/2008

Versions

Minicen

	Dimensions (mm) (w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)
CE 182	260	230	130	4	230-110	50-60	180

Microcen 24

	Dimensions (mm) (w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)
CE 202	276	390	272	16	220-230	50-60	280
CE 203	276	390	272	16	110-120	50-60	280

Biocen 22

	Dimensions (mm) (w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)
CE 146	276	390	272	17	220-230	50-60	360
CE 147	276	390	272	17	110-120	50-60	360

Biocen 22 R

	Dimensions (mm) (w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)
CE 148	276	640	272	34	220-230	50-60	540
CE 149	276	640	272	34	110-120	60	700

*If you are interested in, you can ask us for the **version with IVD marking**.

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About centrifugation

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Subject to
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