

A close-up photograph of a centrifuge rotor assembly. The rotor is black with several grey caps. In the foreground, a black cylindrical component is labeled 'ortoalresa Ns 220759/05'. To the right, several stainless steel tubes are arranged in a row, each engraved with 'ortoalresa Ns 220607/02'. The background shows a white surface with red caps. A semi-transparent black box with white text is overlaid on the right side of the image.

**orto
alresa**
About centrifugation

General applications | BIOPROCEN 22 R

BIOPROCEN 22 R



Control panel details:

- Buttons: Up arrow, Down arrow, Stop, Start, Pause.
- Screen text:
Prog:01 RT:252
RPM:18100 Time:18100
Open Brake:070
- Logos: orto alresa, bioprocen 22 R

The bioprocessing requires a versatile centrifuge which covers different types of assays and therefore different configuration for the same centrifuge. The centrifuge Bioprocen 22 R is provided with high-speed rotors for microtubes from 1,5 to 5 ml, as well as 50 ml conical tubes. Its accessories for microplates offer the chance to spin in swing out rotors.

The refrigeration system has been designed for temperature stability that allows keeping it even at high speed and along the run.

The different options for customization through the software, make the centrifuge become a tailor-made tool for your lab. Increase your lab output with the new Bioprocen 22 R.



Max. Capacity
6 x 50 ml



Max. Speed
31.865 xg / 18.100 RPM



Screen Type
LCD



Version
Refrigerated



EU Directives: 2011/65/EU, 2012/19/EU, 2014/30/EU, 2014/35/EU, 98/79/EC.

Regulation n°: (EC) 1005/2009, (EU) 517/2014.

Standards: EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

Features

LCD screen:

- Shows RPM and RCF, time, temperature and acceleration/deceleration (PCBS).
- Speed programming in 10 RPM/ 10 xg steps.
- Count up/down from "0" or at "set RPM/RCF" for reproducible tests.
- Timer from 5 sec. to 99 min. programmable in 5 sec. steps and hold position.
- PCBS: Progressive controlled braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- 16 programmable memories.
- Several acoustic and visual messages showing the equipment status to the user.

Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list in memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Possibility to block or modify the speed during the cycle.
- Low height for easy access.
- Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

Safety

- Lid provided with security systems:
 - Automatic lid lock system, motorized, with double lock.
 - Emergency lid-lock release.
 - Locking and protection against opening along the run.
 - Lid dropping protection.
 - Port in the lid for calibration and operation checking.
- Ergonomic design that allows close the lid effortless
- 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. Hermetic lids.
- Rotors and adapters autoclavable, easy to install by the user.
- Automatic disconnection for energy saving up to 8 h.

Refrigeration

- Maintains the refrigeration after the centrifugation process.
- Precooling program with rotor spinning and selectable temperature.
- Guarantees 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).

Versions

	Dimensions (mm) (w x d x h)			Net Weight (Kg)	Voltage (V)	Frequency (Hz)	Consumption (W)
CE 223	410	690	320	59	220-230	50	540
CE 224	410	690	320	59	110-120	60	700

Experts in **REFRIGERATION**

As experts in centrifugation, Ortoalresa provides all its refrigerated centrifuges with an extremely efficient refrigeration system that allows:

- Improving the turn on - turn off to reduce the consumption.
- Using only the gases allowed according to regulation for F-gas 517/2014.
- Reaching a very low temperature even at max speed, with values below 0°C, because not all samples must be frozen below 4°C.
- Reaching max accuracy, in steps of 0,5°C.
- Assuring the stability of temperature along your process.
- Preparing the device at working temperature below room temperature, by applying the pre-cooling program.



Accessories centrifuge Bioprocen 22 R

- Rolling table (pag. 6)

- Rotors & adapters

		RT 291		RT 274		RT 276		RT 306		RT 307		RT 275		RT 308	
															
				(1)		(2)									
ROTOR		ANGLE FIXED 45 °		ANGLE FIXED 28 °		SWING OUT 30 °		ANGLE FIXED 45 °		ANGLE FIXED 45 °		ANGLE FIXED 45 °		ANGLE FIXED 45 °	
Max. capacity		12 x 5 ml		6 x 50 ml		4/2 microtiter		32 x 0,2 ml		24 x 1,5 - 2 ml.		30 x 1,5-2 ml.		48 x 1,5 - 2 ml.	
RPM Max.		18.100		8.300		4.500		18.100		18.100		15.000		14.500	
Radius (mm)		87		101		86		55		82		96		95	
RCF Max. (xg)		31.865		7.778		1.947		20.145		30.034		24.148		22.330/19.274	
Min. temp. at max. speed (°C)		3		-3		-5		-1		0		2		2	
SAMPLE VOLUME	Dim (mm) approx	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
		Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.
50 ml. (hs)	ø29 x 108	-	-	6	RE 536	-	-	-	-	-	-	-	-	-	-
50 ml. conical	ø29 x 117	-	-	6	RE 536	-	-	-	-	-	-	-	-	-	-
30 ml. / 30 ml. (hs)	ø25 x 98	-	-	6	RE 392	-	-	-	-	-	-	-	-	-	-
25 ml. conical	ø29 x 83	-	-	6	RE 617	-	-	-	-	-	-	-	-	-	-
15 ml.	ø16 x 100	-	-	6	RE 394	-	-	-	-	-	-	-	-	-	-
15 ml. conical	ø17 x 122	-	-	6	RE 394 (3)	-	-	-	-	-	-	-	-	-	-
10 ml.	ø13 x 100	-	-	6	RE 396	-	-	-	-	-	-	-	-	-	-
10 ml. blood sample	ø16 x 107	-	-	6	RE 394	-	-	-	-	-	-	-	-	-	-
10 ml. (hs)	ø16 x 80	-	-	6	RE 395	-	-	-	-	-	-	-	-	-	-
7/10 ml. blood sample	ø13 x 107	-	-	6	RE 396	-	-	-	-	-	-	-	-	-	-
5 ml.	ø13 x 75	-	-	6	RE 397	-	-	-	-	-	-	-	-	-	-
5 ml. conical	ø17 x 60	12	-	-	-	-	-	-	-	-	-	-	-	-	-
5 ml. conical screw cap	ø17 x 60/68	6	-	-	-	-	-	-	-	-	-	-	-	-	-
5 ml. blood sample	ø13 x 82	-	-	6	RE 397	-	-	-	-	-	-	-	-	-	-
Microtubes 1,5 - 2 ml.	ø11 x 42	12	RE 506	18	RE 433	72	RE 401	-	-	24	-	30	-	48	-
Microtubes 0,5 - 0,6 ml.	ø8 x 30	12	RE 507	18	RE 575	72	RE 580	-	-	24	RE 305	30	RE 428	48	RE 358
Microtubes 0,2 - 0,4 ml.	ø6 x 45	12	RE 508	18	RE 576	72	RE 581	32x0,2	-	24	RE 304	30	RE 427	48	RE 357
Cryotubes	ø12,5 x 52	12	RE 537	-	-	-	-	-	-	-	-	-	-	-	-
Microtiter plates: 128x86x15/21 mm	128x86x15/21	-	-	-	-	4/2	-	-	-	-	-	-	-	-	-

(1) Please check tubes features.

(2) Allows different configurations depending of the microplates height.

(3) Fitting these tubes will not allow the rotor lid to be closed.

RT 312: Available rotor for capillaries (includes microhematocrit card).

ROLLING TABLE

Centrifuges accessories

With the aim of offering an alternative to those laboratories that need to increase their equipment, but do not have enough space, we have designed these rolling tables for our centrifuges.

This accessory allows the equipment to be positioned and moved easily thanks to its four 360° rotating wheels. Once the rolling table is located, and before starting to work with the centrifuge, the wheels can be fixed with the brake system that will prevent involuntary displacement during the centrifugation process. The robust design supports the weight of the equipment and prevents vibration transfer.

We offer two types of tables, one with height to locate the equipment at the same height as if they were on the laboratory table and another, that enables you to place your centrifuge under the table of your laboratory, saving even more space.

A solution for each type of need.

References

	Dimensions (mm) (w x d x h)			Net weight (kg)	Centrifuge model
CP 007	560	590	580	65	Biocen 22 R, Bioprocen 22 R, Digicen 22 R, Consul 22 and Digtor 22
CP 008	440	500	690	65	Unicen 21 and Digicen 22
CP 009	750	730	350	70	Consul 22 R, Digtor 22 R and Dilitcen 22 R - to place under table
CP 010	750	730	580	90	Consul 22 R, Digtor 22 R and Dilitcen 22 R








orto
alresa
About centrifugation

Álvarez Redondo S.A. 

Los frailes, 121
Pol. Ind. Los Frailes
28814 Daganzo | Madrid

www.ortoalresa.com 

(+34) 91 884 40 16 

info@ortoalresa.com to ask for information 
sat@ortoalresa.com to contact our technical service
sales@ortoalresa.com to contact our comercial department
marketing@ortoalresa.com to contact our marketing department