

www.ortoalresa.com

Tel.:+34 91 884 40 16









General applications: Centrifuges: High capacity

Series CONSUL 21



High capacity on a bench top offering several advantages to the operator, until now exclusively available on devices for research.

The **TFT touch screen** made easy the value selection, including in only one screen timer, RPM, RCF, acceleration and braking.

The user menu, allows the customization of several values as open lid, RPM/RCF locking along centrifugation, countdown, etc.

Along centrifugation a graphic shown the operator the current status as well as time to end of program.

The devices included on series **Consul 21** are highly functionals they can spin up to 4×400 ml, 48 tubes of 15 ml, 50 ml and 15 ml conical, rotor for microplates, microtubes, as well as a wide set of adapters for each one.

Innovating about centrifugation.

User friendliness

- TFT touch screen easy to read and values selection (RPM on steps of 100, RCF on steps of 10xg), time, temperature (1°C steps), acceleration/deceleration (1 second steps).
- The screen which indicates the status can be seen from more than 3 m.
- Rotor and adapters list on memory.
- Real values on screen of RCF based on accessories configuration.
- Timer count up/down, from 0 or at "set RPM/RCF" for test reproducibility.
- Short spin key with speed adjustable.
- Progressive acceleration and braking selectable by operator up to 175 ramps.
- Program data protection through password selectable.
- Automatic open lid (only non-refrigerated).
- Automatic rotor recognition.
- Automatic lid latch lock.
- Microprocessor controlled.
- Option: free or locked adjustment of RPM/RCF along the run.

Features

- Induction motor maintenance free
- High capacity: Max. Volume 4 x 400 ml.
- High Speed, up to 20.804 xg /14.300 RPM.
- Quiet: noise level < 60 dB.
- 16 memories for programs.

Safety

- Lid locking and holding.
- Imbalance switch off.
- Manual overriding.
- Chamber of centrifugation in stainless steel.
- Viewing and calibration prot in the lid.
- Several messages keep the operator informed about the device situation.
- Guard ring between the chamber of centrifugation and the housing.
- Forced ventilation which reduces the temperature increase (only non-refrigerated).
- Lid dropping protection.

EU Directives: 98/79/EC. 2006/95/EC. 2004/108/EC. 2011/65/EU. 2012/19/EU

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

Versions

Code	Dimensions (mm)(w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)		
CE 111	490	620	390	47	220-240	50-60	600		
CE 117	490	620	390	47	110-120	50-60	600		



IVD C€

High capacity on a bench top centrifuge which offer to their users several advantages, up to now only available on devices dedicated to research. The **TFT touch screen** simplifies the parameter selection; main values appear only in one screen as time, RPM, RCF, acceleration and braking.

The operator menu allows other values adjustment as open lid once the rotor stops, locking RPM/RCF along the run, selection of time from 0 or at set RPM/RCF

Along centrifugation it showed on screen a graphic indicating its status as well as the stage of centrifugation, time to end of process.

The devices included on series **Consul 21R** are highly functionalsthey can spi up to 4×400 ml, 48 tubes of 15 ml, 12 conical tubes of 50 ml and 28 of 15 ml conical, rotor for microplates, microtubes, as well as a wide set of adapters for each one.

Innovating about centrifugation.

User friendliness

- TFT touch screen easy to read and values selection (RPM on steps of 100, RCF on steps of 10xg), time, temperature (1°C steps), acceleration/deceleration (1 second steps).
- The screen which indicates the status can be seen from more than 3 m.
- Rotor and adapters list on memory.
- Real values on screen of RCF based on accessories configuration.
- Timer count up/down, from 0 or at "set RPM/RCF" for test reproducibility.
- Short spin key with speed adjustable.
- Progressive acceleration and braking selectable by operator up to 175 ramps.
- Program data protection through password selectable.
- Automatic rotor recognition.
- Automatic lid latch lock.
- Microprocessor controlled.
- Option: free or locked adjustment of RPM/RCF along the run.

Features

- Induction motor maintenance free
- High capacity: Max. Volume 4 x 400 ml.
- High speed, up to 20.804 xg./14.300 RPM.
- Quiet: noise level < 60 dB.
- 15 memories + pre-cooling program.

Safety

- Lid locking and holding.
- Imbalance switch off.
- Manual overriding.
- Chamber of centrifugation in stainless steel.
- Viewing and calibration prot in the lid.
- Several messages keep the operator informed about the device situation.
- Guard ring between the chamber of centrifugation and the housing.
- Lid dropping protection.

Cooling

- Precooling program with rotor spinning and temperature selectable by operator.
- 4°C at least at max speed with any rotor.
- Range of temperature -20°C (-4°F) to 40°C (104°F)
- Scale Celsius or Fahrenheit.
- Temperature sensor inside the chamber.
- Gas R 404A HFC.

EU Directives: 98/79/EC, 2006/95/EC, 2004/108/EC, 2011/65/EU, 2012/19/EU

Regulation: 1005/2009 & 842/2006.

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

Versions

Code	Dimensions (mm) (w x d x h)		Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)	Z max. Advisable(Hz)	
CE 114	670	770	390	72	220-240	50-60	1200	< 0,446
CE 120	670	770	390	72	110-120	50-60	1200	< 0,446



Accessories

Centrifuges Series Consul 21		RT 197		RT 199		RT 238		RT 206		RT 203		RT 205 (1)		RT 219	
ROTOR		ANGLE FIXED 45 °		ANGLE FIXED 30 °		ANGLE FIXED 30 °		ANGLE FIXED 45 °		SWING OUT		SWING OUT		SWING OUT	
Max. capacity		8 x 5		4 x 250 ml.		6 x 85 ml		30 x 1,5-2 ml.		4 x 250 ml.		4 x 400 ml.		12 microplacas	
RPM		6.000		4.700		9.000		14.300		4.200		4.000		3.500	
Radius(mm)		14		153		112		96		183		180		149	
RCF Max. (xg)		5,997		3.779		10.142		21.948		3.609		3.220		2.041	
		0.007													
Min. temp. max speed (°C)		-2		-3		0		-3		-1		-2		-4	
SAMPLE VOLUME	Dim (mm)	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
	approx.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.
400ml.	ø 80 x 118	-	-	-	-	-	-	-	-	-	-	4	RE 450	-	-
350 ml.	ø76 x 120	-	-	-	- DE 440	-	-	-	-	-	- DE 440	4	RE 423	-	-
250ml.	ø 62 x 120	-	-	4	RE 449	-	-	-	-	4	RE 449	4	RE 457	-	-
200 ml.	ø 60 x 120	-	-	4	RE 449	-	-	-	-	4	RE 449	4	RE 430	-	-
100 ml. 85 ml.	ø 48 x 95	-	-	4	RE 327 RE 498	6	-	-	-	4	RE 327 RE 498	4	RE 412 RE 499	-	-
50 ml.	ø 38 x 112 ø 35 x 100	- 8	- RE 448	4	RE 334	6	- RE 490	-	-		RE 334	8	RE 414	-	-
50 ml. conical	Ø 29 x 117	8	RE 375	4	RE 340	6	RE 483	-	-	4	RE 334	12	RE 414	-	-
30 ml.	Ø 25 x 96	8	RE 370	12	RE 312	6	RE 493	-	-	12	RE 340	20	RE 415	-	
15 ml.	Ø 16 x 100	8	RE 369	28	RE 376	18	RE 485	-	-	28	RE 376	48	RE 417	-	-
15 ml. conical	ø 17 x 122	8	RE 369	20	RE 321	6	RE 484	_	-	20	RE 321	28	RE 416	_	
15 ml. blood sample	ø 16 x 132	8	RE 369	28	RE 376	-	TIL 404	_	_	-	-	-	-	-	-
10 ml.	ø 13 x 100	24	RE 366	40	RE 343	30	RE 497	_	_	40	RE 343	72	RE 418	_	-
10 ml. blood sample	ø 16 x 107	8	RE 369	28	RE 376	18	RE 485	_	_	28	RE 376	48	RE 417		_
7/10 ml. blood sample	ø 13 x 107	8	RE 373	28	RE 324	18	RE 503	_	-	28	RE 324	48	RE 419	_	-
5 ml.	ø 13 x 75	24	RE 366	40	RE 343	30	RE 501	_	-	40	RE 343	72	RE 418	_	_
5 ml. blood sample	ø 13 x 82	8	RE 373	28	RE 324	18	RE 492	-	-	28	RE 324	48	RE 419	-	-
10 x 10 mm.	ø 10 x 100	24	RE 367	52	RE 346	-		-		52	RE 346	76	RE 420	-	-
Microtubes 1,5-2 ml.	ø 11 x 39	24	RE 465	24	RE 440	24	RE 494	30	-	24	RE 440	48	RE 431	144	RE 460
Microtubes 0,5-0,6 ml.	ø 8 x 30	-	-	-		24	RE 495	30	RE 428	-		-	-	-	-
Microtubes 0,2-0,4 ml.	ø 6 x 45	-	-	-	-	24	RE 496	30	RE 427	-	-	-	-	-	-
Microtiter	ø 128x86x15	-		-	-	-	-	-	-	-	-	-	-	12	-

⁽¹⁾ This rotor can be supplied with hermetic lids (RE 405).



info@ortoalresa.com

www.ortoalresa.com

Tel.:+34 91 884 40 16

Álvarez Redondo S.A.

C/ Misericordia, 23. Fax: + 34 91 884 44 23

28864 AJALVIR Madrid (Spain)

Edition: january 2014







