

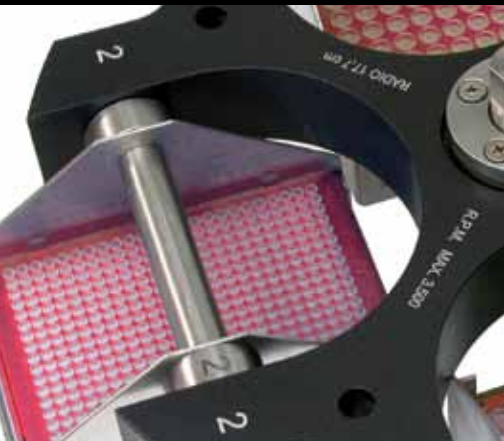
# orto alresa

Centrifuges and laboratory products

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General applications: Centrifuges: High capacity

## Series CONSUL 21

# CONSUL 21

Centrifuges: High capacity: Series Consul 21



IVD CE

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 x 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 port 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

# CONSUL 21R



Centrifuges: High capacity: Series Consul 21

IVD CE

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 functional they can spi up to 4 x 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

													
		ANGLE FIXED 45 °	ANGLE FIXED 30 °	ANGLE FIXED 30 °	ANGLE FIXED 45 °	SWING OUT	SWING OUT	SWING OUT					
Max. capacity		8 x 50 ml.	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)		149	153	112	96	183	180	149					
RCF Max. (xg)		5.997	3.779	10.142	21.948	3.609	3.220	2.041					
Min. temp. max speed (°C)		-2	-3	0	-3	-1	-2	-4					
SAMPLE VOLUME	Dim (mm) approx.	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
		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	-	-	-	-	-	-	-	-	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.	ø 48 x 95	-	-	4	RE 327	-	-	-	-	4	RE 327	4	RE 412
85 ml.	ø 38 x 112	-	-	4	RE 498	6	-	-	-	4	RE 498	4	RE 499
50 ml.	ø 35 x 100	8	RE 448	4	RE 334	6	RE 490	-	-	4	RE 334	8	RE 414
50 ml. conical	ø 29 x 117	8	RE 375	4	RE 340	6	RE 483	-	-	4	RE 340	12	RE 413
30 ml.	ø 25 x 96	8	RE 370	12	RE 312	6	RE 493	-	-	12	RE 312	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	-	-	-	-	-	-	-	-
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
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).

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About centrifugation

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