

ortoalresa

Centrifuges and laboratory products

CONSUL 21 / CONSUL 21R V.2

CONSUL 21



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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 menú, 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 Serie **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, microtubes, microplates , as well as a wide set of adapters for each one.

Innovating about centrifugation.

Use friendlinessly

- TFT touch screen easy to read and values selection.
- Informative Wheel about the progress of stages of centrifugation
- Rotor 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.
- Up to 175 acceleration ramps and up to 175 braking ramps.
- Automatic open lid (only non-refrigerated) .
- Automatic rotor recognition.
- 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 20.804x g./14.300 RPM.
- Quiet: noise level < 60 dB.
- 16 memories for programs.

Safety

- Lid locking and holding as well as lid dropping protection.
- 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).

EC Directives: 98/79/EC, 2006/95/EC, 2004/108/EC; 2002/95/EC, 2002/96/EC, 2003/108/EC.

Standards: 61010-1:2002, 61010-2-020:2006,61326-1:2006

Versions

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

CONSUL 21 R



WORK **PROGRAM SETUP** **MENU** 

Total time: 0h12m29s
SET RPM: 3700 SET ROF: 2587
Set T: 4 °C

Status: Centrifugation
Time to end: 0h05m02s
RPM: 3.700 ROF: 2.587
T: 4 °C

50%

consul 21 R

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 Serie **Consul 21** are highly functional they can spi up to 4 x 400 ml, 48 tubes of 15 ml, 50 ml and 15 ml conical, microtubes, microplates , as well as a wide set of adapters for each one.

Innovating about centrifugation.

Use friendlinessly

- TFT touch screen easy to read and values selection.
- Informative Wheel about the progress of stages of centrifugation
- Rotor 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.
- Up to 175 acceleration ramps and up to 175 braking ramps.
- Automatic open lid (only non-refrigerated) .
- Automatic rotor recognition.
- 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 20.804x g./14.300 RPM.
- Quiet: noise level < 60 dB.
- 15 memories + pre-cooling program.

Safety

- Lid locking and holding as well as lid dropping protection.
- 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).

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) a 40°C(104 °F)
- Scale Celsius or Fahrenheit.
- Temperature sensor inside the chamber.
- Gas R 404A HFC.

EC Directives: 98/79/EC, 2006/95/EC, 2004/108/EC; 2002/95/EC, 2002/96/EC, 2003/108/EC.

Regulation: 1005/2009 & 842/2006.







Standards: 61010-1:2002, 61010-2-020:2006,61326-1:2006

Versions

| Ref | Dimensions (mm)(w x d x h) | | | Net weight (Kg) | Voltage (V) | Frecuency (Hz) | Power (W) | z Max. advisable |
|--------|----------------------------------|-----|-----|-----------------------|----------------|-------------------|-----------|---------------------|
| 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 |



Accesories for centrifuges Consul 21 Series

| | |  |  |  |  |  |  |  | | | | | | | |
|---------------------------------|------------|---|---|--|---|---|---|---|--------|----------|--------|----------|--------|-----|--------|
| ROTOR | | ANGLE FIXED 45 ° | ANGLE FIXED 45 ° | ANGLE FIXED 30 ° | ANGLE FIXED 45 ° | SWING OUT | SWING OUT | SWING OUT | | | | | | | |
| Capacity | | 8 x 50 ml. | 4 x 100 ml. | 4 x 250 ml. | 30 x 1,5-2 ml. | 4 x 250 ml. | 4 x 400 ml. | 12 microplacas | | | | | | | |
| R.P.M. | | 6.000 | 5.600 | 4.700 | 14.300 | 4.200 | 4.000 | 3.500 | | | | | | | |
| Radius mm | | 149 | 138 | 153 | 96 | 183 | 180 | 149 | | | | | | | |
| R.C.F. | | 5.997 | 4.838 | 3.779 | 20.204 | 3.609 | 3.220 | 2.041 | | | | | | | |
| Min Temperature at max speed °C | | -4 | -4 | -4 | -4 | -2 | -4 | -4 | | | | | | | |
| | Dim (mm) | 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 446 | 4 | RE 327 | - | - | 4 | RE 327 | 4 | RE 412 | - | - |
| 80 ml. | ø 44 x 100 | - | - | 4 | RE 338 | 4 | RE 422 | - | - | 4 | RE 422 | 4 | RE 421 | - | - |
| 50 ml. | ø 35 x 100 | 8 | RE 448 | 4 | RE 335 | 4 | RE 334 | - | - | 4 | RE 334 | 8 | RE 414 | - | - |
| 50 ml. conical | ø 29 x 117 | 8 | RE 375 | 4 | RE 341 | 4 | RE 340 | - | - | 4 | RE 340 | 12 | RE 413 | - | - |
| 30 ml. | ø 25 x 96 | 8 | RE 370 | 4 | RE 332 | 12 | RE 312 | - | - | 12 | RE 312 | 20 | RE 415 | - | - |
| 15 ml. | ø 16 x 100 | 8 | RE 369 | 16 | RE 316 | 28 | RE 376 | - | - | 28 | RE 376 | 48 | RE 417 | - | - |
| 15 ml. conical | ø 17 x 122 | 8 | RE 369 | 4 | RE 339 | 20 | RE 321 | - | - | 20 | RE 321 | 28 | RE 416 | - | - |
| 15 ml. blood tubes | ø 16 x 132 | 8 | RE 369 | - | - | 28 | RE 376 | - | - | - | - | - | - | - | - |
| 10 ml. | ø 13 x 100 | 24 | RE 366 | 20 | RE 320 | 40 | RE 343 | - | - | 40 | RE 343 | 72 | RE 418 | - | - |
| 10 ml. blood tubes | ø 16 x 107 | 8 | RE 369 | 16 | RE 316 | 28 | RE 376 | - | - | 28 | RE 376 | 48 | RE 417 | - | - |
| 7/10 ml. blood tubes | ø 13 x 107 | 8 | RE 373 | 20 | RE 320 | 28 | RE 324 | - | - | 28 | RE 324 | 48 | RE 419 | - | - |
| 5 ml. | ø 13 x 75 | 24 | RE 366 | 20 | RE 320 | 40 | RE 343 | - | - | 40 | RE 343 | 72 | RE 418 | - | - |
| 5 ml. blood tubes | ø 13 x 82 | 8 | RE 373 | 20 | RE 320 | 28 | RE 324 | - | - | 28 | RE 324 | 48 | RE 419 | - | - |
| 10 x 10 mm. | ø 10 x 100 | 24 | RE 367 | 36 | RE 326 | 52 | RE 346 | - | - | 52 | RE 346 | 76 | RE 420 | - | - |
| microtubos 1,5-2 ml. | ø 11 x 39 | 24 | RE 465 | 20 | RE 408 | 24 | RE 440 | 30 | - | 24 | RE 440 | 48 | RE 431 | 144 | RE 460 |
| microtubos 0,5-0,6 ml. | ø 8 x 30 | - | - | - | - | - | - | 30 | RE 428 | - | - | - | - | - | - |
| microtubos 0,2-0,4 ml. | ø 6 x 45 | - | - | - | - | - | - | 30 | RE 427 | - | - | - | - | - | - |
| microplates | 128x86x15 | - | - | - | - | - | - | - | - | - | - | - | - | 12 | - |

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