

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 '1' and 'ortoalresa Ns 220759/05'. To the right, several stainless steel tubes are arranged in a row, each engraved with 'ortoalresa Ns 220607/02'. In the background, a white centrifuge bucket is visible, containing several red-tipped tubes. The lighting is bright, highlighting the metallic and plastic surfaces.

orto alresa

About centrifugation

General applications | Series DIGTOR 22

DIGTOR 22



Benchtop centrifuge with large capacity and high performance. With a wide range of accessories to process tubes from 750 ml. to 0,2 ml. in more than 12 rotors, both angle fixed and swing out. It has more than 50 different sets of adaptors, giving it great versatility. This equipment is the culmination of the merger of high capacity and high speed equipment, resulting in a routine use centrifuge with specific characteristics of superior level models. Its colour TFT touch screen offers performance that permits, in addition to controlling the equipment by operational parameters, the possibility of exporting data for analysis and timer programmed operation.

The autonomy provided by this equipment enables the user to optimise working time in the lab, by automation of cycles and modes of operation. These features also ensure process traceability and that no parameter is uncontrolled.

Features

- TFT color touch screen, visible from more than 3 m.:
- Shows RPM and RCF, time, acceleration/deceleration values (PCBS) and unbalance location system (ULS).
- Speed programming in 10 RPM/10 xg steps.
- Real RCF values on screen based on accessories configuration.
- Count up/down from "0" or at "set RPM/RCF" for reproducible tests.
- Timer from 1 sec. to 99 hours programmable in 1 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- ULS: Unbalance location system indicating on the screen the number of the bucket which produces the unbalance switch off.
- Start delay: To program the time at which the cycle is to begin.
- Linked program: Permits the linking of up to 8 consecutive programmes without the need of user intervention.
- 100 programmable memories, with protection under password.
- Several acoustic and visual messages showing the situation of the device to the user.

Easy to use

- Microprocessor controlled. Connectivity.
- Induction motor maintenance free (brushless).
- Rotors and adapters 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.
- Automatic lid opening, programmable.
- Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.



Max. Capacity
4 x 750 ml



Max. Speed
21.948 xg / 14.300 RPM



Screen Type
TFT



Version
Ventilated



EU Directives: 2011/65/EU, 2012/19/EU, 2014/30/EU, 2014/35/EU, 98/79/EC.
Standards: EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

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.
- 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.
- Forced ventilation to reduce temperature increasing.
- Automatic disconnection for energy saving up to 8 h., with deactivation option.

Versions

	Dimensions (mm) (w x d x h)			Net Weight (Kg)	Voltage (V)	Frequency (Hz)	Consumption (W)
CE 228	530	640	400	71	220-230	50-60	1020
CE 229	530	640	400	71	110-120	50-60	1020

*IVD version available, please indicate it in your request





DIGTOR 22 R



The largest of our refrigerated benchtop centrifuges that offers the maximum performance. With an ergonomic design that enables easy loading of the rotor, as well as traceability of the position of the samples for easy identification of the charge balance. It has a wide range of accessories that offer capacity for tubes of 750 ml., microplates, microtubes and a great number of positions for the more common use tubes of 15 ml. conical, 50 ml. conical, 15 ml., 10 ml., and 5 ml.

Its colour TFT touch screen offers performance that enables, in addition to controlling the equipment by operational parameters, the possibility of exporting data for analysis and timer programmed operation. The autonomy that this equipment gives to the user reduces the work time, by automating the cycles and work modes, ensuring the process traceability. It has a refrigeration system that enables it to maintain the minimum temperature of the chamber below 4°C regardless of the type of rotor and the speed selected.

Features

TFT color touch screen, visible from more than 3 m.:

- Shows RPM and RCF, time, temperature, acceleration/deceleration values (PCBS) and unbalance location system (ULS).
- Speed programming in 10 RPM/10 xg steps.
- Real RCF values on screen based on accessories configuration.
- Count up/down from "0" or at "set RPM/RCF" for reproducible tests.
- Timer from 1 sec to 99 hours programmable in 1 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- ULS: Unbalance location system indicating on the screen the number of the bucket which produces the unbalance switch off.
- Start delay: To program the time at which the cycle is to begin.
- Linked program: Permits the linking of up to 8 consecutive programmes without the need of user intervention.
- 100 programmable memories, with protection under password.
- Several acoustic and visual messages showing the situation of the device to the user.

Easy to use

- Microprocessor controlled. Connectivity.
- Induction motor maintenance free (brushless).
- Rotors and adapters 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.
- Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.



Max. Capacity
4 x 750 ml



Max. Speed
21.948 xg / 14.300 RPM



Screen Type
TFT



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.

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.
- 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/1°F steps. Programmable in °C or °F.
- 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 234	720	780	400	113	220-230	50	1450
CE 235	720	780	400	113	110-120	60	1450

*IVD version available, please indicate it in your request

Accessories centrifuge Digtor 22

- Rolling table (pag. 8)

- Rotors & adapters

MICROTITER PLATES														
		RT 279	RT 278	RT 299	RT 277	RT 284	RT 297	RT 283						
														
		(6)			(1)(4)	(4)	(4)(5)	(1)(2)(4)(5)						
ROTOR		SWING OUT	SWING OUT	SWING OUT	SWING OUT	SWING OUT	SWING OUT	SWING OUT						
Max. capacity		104 x 5 ml.	4 x 250 ml.	6 x 250 ml.	4 x 750 ml.	12/8/4 microtiter	10/6/2/2 microtiter	4 blood bags						
RPM Max.		3.800	4.200	2.500	3.700	3.700	4.500	3.700						
Radius (mm)		160	202	212	204	182 (3)	166	204						
RCF Max. (xg)		2.583	3.984	1.481	3.122	2.786	3.758	3.122						
Min. temp. at max. speed (°C)		0	1	-5	0	-4	4	0						
SAMPLE VOLUME	Dim (mm) approx.	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		
		Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	
750 ml.	ø96 x 130	-	-	-	-	-	-	4	RE 434	-	-	-	-	
500 ml.	ø90 x 120	-	-	-	-	-	-	4	RE 310	-	-	-	-	
250 ml.	ø60 x 135	-	-	4	RE 449	6	RE 530	4	RE 330	-	-	-	-	
100 ml.	ø48 x 100	-	-	4	RE 327	6	RE 558	4	RE 409	-	-	-	-	
85 ml. (hs) / 80 ml. (hs)	ø38 x 112	-	-	4	RE 498	6	RE 559	12	RE 500	-	-	-	-	
80 ml.	ø44 x 100	-	-	4	RE 422	6	RE 560	8	RE 352	-	-	-	-	
50 ml.	ø34 x 100	-	-	4	RE 334	6	RE 561	16	RE 317	-	-	-	-	
50 ml. conical	ø29 x 117	-	-	4	RE 340	6	RE 562	20	RE 472	-	-	-	-	
30 ml. / 30 ml. (hs)	ø25 x 98	-	-	12	RE 312	18	RE 563	24	RE 322	-	-	-	-	
25 ml. conical	ø29 x 83	-	-	4	RE 612	6	RE 616	20	RE 614	-	-	-	-	
15 ml.	ø16 x 100	-	-	28	RE 376	42	RE 564	80	RE 625	-	-	-	-	
15 ml. conical	ø17 x 122	-	-	20	RE 321	30	RE 565	52	RE 347	-	-	-	-	
15 ml. blood sample	ø16 x 132	-	-	28	RE 376	42	RE 564	32	RE 441	-	-	-	-	
10 ml.	ø13 x 100	104	RE 309	40	RE 343	60	RE 566	100	RE 354	-	-	-	-	
10 ml. blood sample	ø16 x 107	-	-	28	RE 376	42	RE 564	80	RE 625	-	-	-	-	
7/10 ml. blood sample	ø13 x 107	104	RE 309	28	RE 324	42	RE 567	92	RE 624	-	-	-	-	
5 ml.	ø13 x 75	104	-	40	RE 343	60	RE 566	100	RE 354	-	-	-	-	
5 ml. blood sample	ø13 x 82	104	-	28	RE 324	42	RE 567	92	RE 624	-	-	-	-	
10 x 100 mm	ø10 x 100	-	-	52	RE 346	78	RE 568	144	RE 315	-	-	-	-	
Microtubes 1,5-2 ml.	ø11x42	-	-	24	RE 440	36	RE 569	72	RE 426	144	RE 460	72	RE 401	
Microtubes 0,5-0,6 ml.	ø8x30	-	-	24	RE 523	36	RE 570	72	RE 466	144	RE 584	72	RE 580	
Microtubes 0,2-0,4 ml.	ø6x45	-	-	24	RE 458	36	RE 571	72	RE 524	144	RE 585	72	RE 581	
Microtiter plates	128x86x15/21/45	-	-	-	-	-	-	12/8/4	RE 307	12/8/4	-	10/6/2	-	
Microtiter plates (h:80 mm)	128x86x80	-	-	-	-	-	-	-	-	2	-	-	-	

(1) This rotor can be supplied with hermetic lids (RE 356)






(2) This rotor can fit adapters for blood bags (RE 308)

(3) Medium radius on bucket.

(4) Allows different configurations depending on the microplates height.

(5) Only available for refrigerated models.

(6) Available **RT 301** for 104 x 7/10 ml. bs and 10 ml.

HIGH SPEED													
		RT 280	RT 281	RT 282	RT 287	RT 292							
													
ROTOR		ANGLE FIXED 45 °	ANGLE FIXED 45 °	ANGLE FIXED 30 °	ANGLE FIXED 45 °	ANGLE FIXED 30 °							
Max. capacity		8 x 50 ml.	4 x 100 ml.	4 x 250 ml.	30 x 1,5-2 ml.	6 x 85 ml							
RPM Max.		6.000	5.600	4.700	14.300	9.000							
Radius (mm)		149	138	153	96	112							
RCF Max. (xg)		5.997	4.838	3.779	21.948	10.142							
Min. temp. at max. speed (°C)		0	-1	-4	-1	1							
SAMPLE VOLUME	Dim (mm) approx.	ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS		ADAPTERS	
		Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.	Tubes	Ref.
750 ml.	ø96 x 130	-	-	-	-	-	-	-	-	-	-	-	-
500 ml.	ø90 x 120	-	-	-	-	-	-	-	-	-	-	-	-
250 ml.	ø60 x 135	-	-	-	-	4	RE 449	-	-	-	-	-	-
100 ml.	ø48 x 100	-	-	4	RE 446	4	RE 327	-	-	-	-	-	-
85 ml. (hs) / 80 ml. (hs)	ø38 x 112	-	-	4	RE 380	4	RE 498	-	-	-	-	6	-
80 ml.	ø44 x 100	-	-	4	RE 338	4	RE 422	-	-	-	-	-	-
50 ml.	ø34 x 100	8	RE 448	4	RE 335	4	RE 334	-	-	-	6	RE 490	-
50 ml. conical	ø29 x 117	8	RE 375	4	RE 341	4	RE 340	-	-	-	6	RE 483	-
30 ml. / 30 ml. (hs)	ø25 x 98	8	RE 370	4	RE 332	12	RE 312	-	-	-	6	RE 493	-
25 ml. conical	ø 29 x 83	8	RE 599	4	RE 597	4	RE 612	-	-	-	6	RE 600	-
15 ml.	ø16 x 100	8	RE 369	16	RE 316	28	RE 376	-	-	-	18	RE 485	-
15 ml. conical	ø17 x 122	8	RE 369	4	RE 339	20	RE 321	-	-	-	6	RE 484	-
15 ml. blood sample	ø16 x 132	8	RE 369	-	-	28	RE 376	-	-	-	-	-	-
10 ml.	ø13 x 100	24	RE 366	20	RE 320	40	RE 343	-	-	-	30	RE 497	-
10 ml. blood sample	ø16 x 107	8	RE 369	16	RE 316	28	RE 376	-	-	-	18	RE 485	-
7/10 ml. blood sample	ø13 x 107	8	RE 373	20	RE 320	28	RE 324	-	-	-	18	RE 503	-
5 ml.	ø13 x 75	24	RE 366	20	RE 320	40	RE 343	-	-	-	30	RE 501	-
5 ml. blood sample	ø13 x 82	8	RE 373	20	RE 320	28	RE 324	-	-	-	18	RE 492	-
10 x 100 mm	ø10 x 100	24	RE 367	36	RE 326	52	RE 346	-	-	-	-	-	-
Microtubes 1,5-2 ml.	ø11x42	24	RE 465	20	RE 408	24	RE 440	30	-	-	24	RE 494	-
Microtubes 0,5-0,6 ml.	ø8x30	24	RE 535	20	RE 519	24	RE 523	30	RE 428	-	24	RE 495	-
Microtubes 0,2-0,4 ml.	ø6x45	24	RE 526	20	RE 473	24	RE 458	30	RE 427	-	24	RE 496	-
Microtiter plates	128x86x15/21/45	-	-	-	-	-	-	-	-	-	-	-	-
Microtiter plates (h:80 mm)	128x86x80	-	-	-	-	-	-	-	-	-	-	-	-

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






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About centrifugation

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