

LABORATORY EQUIPMENT

COMPLETE PROGRAM

Centrifuge CENTRIC 200 / R (mark R means with refrigerating system) is universal laboratory centrifuge, designed for use in medical, industrial and scientific laboratories for separating substances with different relative densities by centrifugal force. The maximum rotational speed of **16.200 RPM** gives the centrifugal force of **25.000 x g**.

A wide usage of programming options and an electronic operation control allow a trouble-free use of the centrifuge. With a special drive, quiet maintenance-free operation without any carbon dust pollution is guaranteed.

Device is equipped with user-friendly options which make the operation and standard settings easier for you. Built-in error-detecting functions keep the user from entering incorrect values and check the complete operation.

The centrifuge has the possibility to save programs. In the program store you can save up to 10 different data sets. The centrifuge always keeps the last run program in its memory for an unlimited amount of time allowing the program to be restarted at any time – even if the centrifuge was turned off during operation. All important operation parameters can be seen at a glance.

The settings are executed with knobs and keys on the control panel. The interior of the centrifuge is also easy to clean. We are able to offer you a device that combines functional variety with practical applications.




Centric 200 R


TECHNICAL DATA	CENTRIC 200	CENTRIC 200 R
Code for 230 V 115 V	456.500 1456.500	456.700 1456.700
Power supply	230 V / 50-60 Hz 115 V / 50-60 Hz	
Power requirement centrifuge compressor	600 W /	600 W 300 W
Fuses	2 x10 A T – 230 V 2 x 16 A T – 115 V	
Isolation category	I	
Max. rotation speed	500 to 16.200 rpm	
Max. centrifugal force	25,000 x g	
Max. load	30 x 2.0 ml	
Max. kinetic energy	6,200 Nm	
Max. density of material to be centrifuged	1.2 g / ml	
Time	0 – 99 min, HOLD function	
Program settings	10 programs	
Acceleration	0 – 9 levels	
Deceleration	0 – 9 levels	
Range of control for refrigerat.	/	-9 °C to 40 °C
Refrigeration time »fast cool«	/	20°C to 4°C in app. 20 min
Sample temp. at max. speed	+ 15 °C	0 °C (ambient temp. 20°C)
Cooling medium	/	R 404A
Permitted ambient temp.	2 °C to 35 °C	
Permitted max. rel. air humidity	75 %	
Communication	RS - 232	
Dimensions (H x W x D)	230 x 308 x 394 mm	282 x 360 x 665 mm
Weight	18 kg	50 kg

ACCESSORIES FOR CENTRIFUGE CENTRIC 200 / R

ANGLE ROTOR RA 24 incl. aluminium lid

	Code	456.2.600
	Max. capacity	24 x 2.0 ml
	Max. speed	16.200 rpm
	Max. centrifugal force	25.000 x g
	Radius	86 mm
	Acceleration to max. speed	16 sec
	Braking from max. speed	15 sec

ANGLE ROTOR RA 30 incl. aluminium lid

	Code	456.2.620
	Max. capacity	30 x 2.0 ml
	Max. speed	14.000 rpm
	Max. centrifugal force	21.475 x g
	Radius	98 mm
	Acceleration to max. speed	15 sec
	Braking from max. speed	14 sec

We reserve the right to alter specification details etc. without prior notice or liability!

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Personal centrifuge Baby Bug is appropriate for private doctor practice and other simple operations in laboratories. It requires very small bench space so it can be placed wherever you need.

In spite of simple construction Baby Bug has many advantages and even carries a CE mark.



MAIN FEATURES

Lid locking system

Variable speed regulation with dynamic braking

Solid metal housing with rubber feet which keep the unit stable

Speed up to 8000 RPM – ideal for quick spin - downs

Use to microfiltrate cell separations and HPLC samples

Easy to use – simply by pressing ON / OFF switch

TECHNICAL SPECIFICATIONS

Model	Personal Centrifuge Baby Bug	
Code No.	458.200	
Available rotors	Rotor 12 x 1.5 ml,	code no. 458.240
	Rotor 16 x 1.5 ml and 6 x 0.5 ml,	code no. 458.250
	Rotor for two strips of 8 PCR tubes,	code no. 458.260
Voltage	230V/50Hz or 115V/60Hz	
Power	55 VA	
Speed	2000 – 8000 rpm	
Max. RCF	4000 x g	
Environment temperature	2 – 40 °C	
Dimensions (L, W, H)	205 x 175 x 140 mm	
Net weight	3,3 kg	

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Clinical centrifuge Centric 90 is appropriate for veterinary practice and other operations in small laboratories. It is designed for optimal and efficient separation of blood and other materials with different densities. Irrespective of simple construction Centric 90 has many advantages and carries a CE mark.



MAIN FEATURES

- Lid locking system
- Variable speed with closed loop regulation
- Solid metal housing with rubber feet which keep the unit stable
- Electronic timer with HOLD
- Microprocessor controlled functions of cover, time and speed
- Easy to use – simply by pressing START / STOP key

TECHNICAL SPECIFICATIONS

Model	Centric 90
Code No.	456.900
Rotor	Angle rotor RA6 with 12 or 15 ml tubes
Voltage	230V/50Hz or 115V/60Hz
Power	100 VA
Time	0 – 30 min, HOLD
Speed	500 – 3500 rpm
Max. RCF	1300 x g (1600/15ml)
Environment temperature	0 – 40 °C
Dimensions (L, W, H)	340 x 290 x 225 mm
Net weight	11 kg

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The CENTRIC 150 centrifuge is a compact, digital bench-top centrifuge with many additional benefits including an active lid cooling system and silent operation, all at a most-effective price.

Centrifuges functions are controlled by microprocessor which supervises all its safety protection features such as the displayed imbalance cut-out and lid locking system. It also provides system diagnosis features, automatic rotor recognition and speed limitation, braking and acceleration, intensity, momentary run... Even regulation from the control computer is possible.



MAIN FEATURES

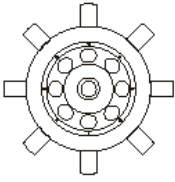
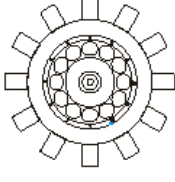
Thanks to wide speed range the CENTRIC 150 can be used not only for simple applications like standard urine and blood separation but also for high speed centrifugation of small samples in tubes ranging from 0.25 to 2.0 ml. With an additional rotor even 15 ml tubes can be used.

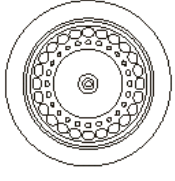
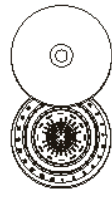
The CENTRIC 150 is the ideal and affordable choice of centrifuge for daily routine operations in the laboratory. It provides more now to cope with increased demands in the future, all these without the need for additional expense at the later date.

TECHNICAL DATA

Model	Centric 150
Code No.	455.000
Supply voltage	230V/50Hz or 115V/60Hz
Power	400 VA
Fuse	2 x 5A
Environment temperature	2 – 40 °C
Relative humidity	to 85 %
Max. rotating speed	500 – 13000 RPM
Rotating speed adjustment	in 100 RPM steps
Centrifugation duration	0.1 – 60 min (in 0.1 min. steps)
Braking and acceleration	9 different levels
Temperature range	DIN 58970
Communications	RS 232, RS 485 (special order)
Dimensions (H, W, D)	275 x 330 x 240 mm
Net weight	14.5 kg

ACCESSORIES FOR CENTRIFUGE CENTRIC 150

UNIVESAL ROTORS	ANGLE ROTOR RA 8/15				ANGLE ROTOR RA 12/12			
	Tube angle 55°	Max. RPM 5000	Code No. 455.250		Tube angle 55°	Max. RPM 5000	Code No. 455.260	
								
Shields Code No.	455.256				455.266			
Adapter Code No.	-	-	455.259	455.258	-	-	455.259	455.258
Tube capacity (ml)	15	12	7	5	15	12	7	5
Max. No. Of tubes	8	8	8	8	6	12	12	12
Tube dimension Ø x l (mm)	16 x 120 Falcon	16 x 100 Vacutainer	12 x 100	12 x 75 Vacutainer	16 x 120 Falcon	16 x 100 Vacutainer	12 x 100	12 x 75 Vacutainer
Max. radius (mm)	100	100	98	85	100	100	98	85
Max. speed (RPM)	5000	5000	5000	5000	5000	5000	5000	5000
Max. RCF (g)	2800	2800	2740	2375	2800	2800	2740	2375

HIGH SPEED ROTORS	ANGLE ROTOR RA 24M			HEMATOCRIT ROTOR WITH READING DEVICE	
	Tube angle 45°	Max. RPM 13000	Code No. 456.140	Max. RPM 13000	Code No. 455.290
					
Tube capacity (ml)	0,25	1,5			
Max. No. Of tubes	24	24		24 glass tubes	
Tube dimension	Ø 6 x 30 mm	Ø 11 x 40 mm		Ø 1,2 x 75 mm	
Max. radius (mm)	65	80		92	
Max. speed (RPM)	13000	13000		13000	
Max. RCF (g)	12280	15120		17380	

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The Centric 322A is universal bench-top microprocessor controlled centrifuge. It is ideal for your routine separations and effectively does the work of several single-function centrifuges. A choice of five different rotors allows you to process test tubes from 0,25 to 100 ml as well as microtiter plates. Microprocessor supervises accurate rotating speed, precise time, smooth braking, diagnoses different error conditions and provides maximum and fastest auto-diagnostics and service statistics. Your most used parameters can be saved in 15 different programs through user friendly keyboard which allows you to use the centrifuge without special operating instructions and programming skills. All results are displayed clearly on digital display.



MAIN FEATURES



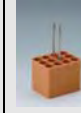
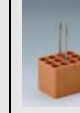



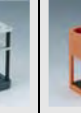
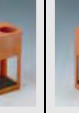



Safety lid opens only after spinning is completed, light indicates when motor is running and when there is a need to change motor brushes. Automatic imbalance function stops the centrifuge if the rotor is unbalanced. Stainless steel chamber area is easily loaded and cleaned through the large aperture. Due to active air cooling system temperature in the chamber does not increase significantly even a longer centrifugation times.

TECHNICAL DATA

Model	Centric 322A
Code No.	464.000
Supply voltage	230V/50Hz or 115V/60Hz
Power	550 VA
Fuse	2 x 5A slow blow (T)
Environment temperature	10 – 30 °C (max. 35 °C)
Relative humidity	do 85 %
Max. rotating speed	500 – 6000 RPM
Rotating speed adjustment	in 100 RPM steps
Centrifugation duration	1 – 99 min (in 1 min. steps)
Braking	10 different levels
Number of programs	15
Temperature range	DIN 58970
Communications	RS 232, RS 485
Dimensions (H, W, D)	360 x 400 x 460 mm
Net weight	28 kg

ACCESSORIES FOR CENTRIFUGE CENTRIC 322A

	FOUR PLACE SWING OUT ROTOR RS 4 / 100 Code No. 464.178		BUCKET (set of 4) Code No. 462.200		SEALED BUCKET (set of 4) Code No. 464.200
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INSERTS												
Insert Code No.	462.203	462.203	462.203	462.203	462.240	462.208	464.220	462.213	462.218	462.218	462.224	
Red. plate Code No. (set of 4)	464.203	464.205	464.207						462.222			
Tube capacity (ml)	0.25	0.5	1.5	5-7	5-7	10-12	15	25	50	50	100	
Places in insert	12	12	12	12	7	6	2	2	1	1	1	
Max. No. of tubes	48	48	48	48	28	24	8	8	4	4	4	
Tube dimension Ø x d (mm)	6 x 30 6 x 45	8 x 32	11 x 40	12 x 75	12 x 75 Vacutainer	16 x 110 Vacutainer	16 x 120 Falcon	24 x 100	29 x 115 Falcon	36 x 100	44 x 100	
Max. tube dimension Ø x d (mm)	6 x 45	8 x 45	11 x 45	12.5 x 100	12.5 x 100 cap Ø 17	16.5 x 105	16.5 x 121 cap Ø 35	25 x 110	29 x 115 cap Ø 35	36 x 110	44 x 100	
Max. radius (mm)	132/145	132	138	145	145	142	145	142	142	142	142	
Max. speed (RPM)	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	
Max. RCF (g)	2360/2590	2360	2470	2590	2590	2540	2590	2540	2540	2540	2540	

Various angle rotors can accept up to 30 tubes arranged in one or two concentric rows. Tubes are placed in angle of 45°. Have in mind that the outer row has greater RCF.	ANGLE ROTOR RA 30 / 12 Code No. 464.275				ANGLE ROTOR RA 6/50		ANGLE ROTOR RA24/.15 Code No. 464.340		
									
Shields Code No. (set of 30)	464.280				464.295		464.325 (set of 6)		-
Adapter Code No. (1 pcs)	454.141	454.147	454.151	-	-	-	-	-	-
Adapter capacity (ml)	5	7	10	12	15	50	50	1.5 - 2	
No. Of tubes per rotor	30	30	30	30	30	6	6	24	
Max. tube dimension Ø x d (mm)	12 x 75 Vacutainer	12 x 100 Vacutainer	16 x 100 Vacutainer	16 x 100 Vacutainer	16 x 120	29 x 115 Falcon	29 x 115 Falcon	11 x 40 Eppendorf	
Max. radius (mm)	113 / 69	130 / 115	121 / 106	130 / 115	145 / 130	125	125	82	
Max. speed (RPM)	4300	4300	4300	4300	4300	4300	4300	6000	
Max. RCF (g)	2335/1985	2690/2380	2400/2130	2690/2380	3000/2690	2583	2583	3300	

TWO-PLACE SWING OUT ROTOR Code No. 464.300	MICROTITER PLATE CARRIER (set of 2) Code No. 464.310
	
Nol. of plates per rotor	6 plates
Size of plate (mm)	86 x 128
Max. radius (mm)	132
Max. speed (RPM)	3000
Max. RCF (g)	1330

On special request we can provide special custom tube adapter.

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Magnetic stirrer ROTAMIX 560 MM with stirring plate Ø 135 mm is designed for stirring liquids in laboratories. ROTAMIX 560 MM features a quiet motor drive with analog electronics. Speed is fully adjustable. Speed remains constant, even under varying loads. Stirring plate is made from stainless steel. ROTAMIX 560 MM is supplied with stirring bar retriever rod.



MAIN FEATURES

Ideal for stirring applications
Max. capacity 10 liters
Stainless steel plate
Convenient, small footprint design
Analog speed

TECHNICAL SPECIFICATIONS

Model	Rotamix 560 MM
Code No.	638.000
Voltage	230V/50Hz or 115V/60Hz
Power	15 VA
Speed range	200 – 1200 rpm
Stirring plate dimension	Ø 135 mm
Max. capacity	10 liters
Ambient operating range	4° to 65°C
Dimensions (WxDxH)	170 x 210 x 105 mm
Net weight	3,5 kg

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Stirring hot plate ROTAMIX 560 MMH with heating plate \varnothing 135 mm is designed for stirring and heating liquids in laboratories. ROTAMIX 560 MMH features a quiet motor drive with analog electronics. Speed and temperature is fully adjustable. Speed remains constant, even under varying loads. Heating plate is protected with Teflon[®] coating. ROTAMIX 560 MMH is supplied with stirring bar retriever rod.



MAIN FEATURES

Ideal for stirring and heating applications
Max. capacity 10 liters
Heating power 500 W
Convenient, small footprint design
Analog speed and temperature

TECHNICAL SPECIFICATIONS

Model	Rotamix 560 MMH
Code No.	637.000
Voltage	230V/50Hz or 115V/60Hz
Power	500 VA
Speed range	200 – 1200 rpm
Max. heating temperature	300°C
Heating plate dimensions	\varnothing 135 mm
Max. capacity	10 liters
Ambient operating range	4° to 65°C
Dimensions (WxDxH)	170 x 210 x 120 mm
Net weight	4,1 kg

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