

COMPACT HIGH PERFORMANCE CENTRIFUGE HERAEUS® BIOFUGE® PRIMO AND PRIMO R

Flexible and efficient



THE COMPACT HIGH PERFORMANCE CENTRIFUGE HERAEUS® BIOFUGE® PRIMO AND PRIMO R

Three centrifuges in one – the Biofuge® primo and its refrigerated counterpart, the Biofuge® primo R are microlitre, highspeed and general purpose centrifuges all at the same time.

Rotors for every type of application and high speeds characterise the new Biofuge® primo and primo R.

Biofuge® primo and primo R, the ideal centrifuge for

- Small medical laboratories
- Biochemistry and molecular biological research
- Routine analysis in industrial laboratories

The rotors – the guarantee of flexibility

Six fixed angle, swinging bucket and microlitre rotors for all common tubes from 0.2 to 100 ml are available for applications using microlitre, DIN, blood sample and Falcon® type conical tubes. A 12-place swinging bucket rotor for micro tubes is available for primo R only.

User friendly technology

The automatic rotor recognition system which identifies the rotor used, and which allocates individual parameters to each respective rotor, supports the operating process when frequently changing rotors. Rapid acceleration and braking times minimise waiting and ensure rapid sample processing. Low noise levels during a run provide undisturbed working conditions directly next to the centrifuge.

Imbalance recognition

Biofuge® primo and primo R are equipped with electronic imbalance recognition. Not only does it react if the centrifuge is loaded incorrectly, but it also registers imbalances during a run caused, for example, by tube breakage. Centrifugation is interrupted and the user can remove the rotor and, if necessary, decontaminate it.

User comfort

The EASYcontrol™ II user panel clearly displays all parameters. Self explanatory symbols, which are internationally recognised, and the clear arrangement of function keys allow you to “get to know” the centrifuge very quickly and avoid incorrect operation. The time and speed or *g*-value parameters are set with the easy-to-clean touch panel. Two acceleration and 9 braking curves are available for sensitive samples. The “quick-run” key is intended for short run times.

Typical applications

- Sedimentation of cells (algae, yeast, bacteria, etc.)
- Sedimentation of cell organelles and cell fragments
- Sample preparation for HPLC, (capillary) electrophoresis, etc.
- Separation of DNA and protein precipitates
- Blood and urine analysis
- Centrifugation of standard test series in microlitre tubes

THREE CENTRIFUGES IN ONE!



Biofuge® primo (above) and Biofuge® primo R (right) are applicable as microlitre-, highspeed- and general purpose centrifuges.



ROTORS AND ACCESSORIES



Highconic® rotor

- Fixed angle rotor for 6 x 50 ml with max. 10,000 x g

- The flat angle of 45° ensures that sample material does not run out and the pellet forms at the bottom of the tube
- Adapter for highspeed tubes from 1.5 to 50 ml and 15 or 50 ml conical Falcon® type tubes

- The rotor comes with an adapter set for 50 ml conical tubes
- Fully autoclavable and biocontainment approved for use with infectious or hazardous samples

Highconic® rotor 45°		
Max. capacity	ml	6 x 50
Max. speed	rpm	8,500
Max. RCF	x g	10,015
Acceleration time	s	41
Braking time	s	30
Max. radius	cm	12.4
Min. temperature (only primo R) ¹⁾	°C	-1°
Order no.	75007588	

¹⁾ at max. speed and 23 °C room temperature

Adapter for Highconic® rotor 75007588					
Adapter for	Max. tube size (mm/inch)		Tubes per adapter	rotor	Order no.
	Ø	length			
1.5 ml micro tubes	11/0.4	57/2.2	4	24	76002905
3.5 ml	11/0.4	100/3.9	4	24	75003091
6.5 ml	13/0.5	113/4.4	2	12	75003092
12 ml	16/0.6	95/3.7	2	12	75003093
16 ml	18/0.7	122/4.8	1	6	76002906
38 ml	25/1.0	112/4.4	1	6	75003094
50 ml	29/1.1	122/4.8	1	6	75003014
15 ml Falcon®	16.5/0.6	120/4.7	1	6	75003095
50 ml Falcon® ¹⁾	30/1.2	117/4.6	1	6	75003096

¹⁾ Included in the price of the rotor



Swinging bucket rotor

- A round bucket for 4 x 100 ml max
- Adapters for all types of tube such as DIN, blood sample, conical Falcon® and micro tubes from 1.5 to 100 ml

- If you do not have the right adapter for your type of tube, please send us a sample and we will manufacture the correct adapter for you
- An aerosol tight cap is available as an option

Swinging bucket rotor		
Max. capacity	ml	4 x 100
Max. speed	rpm	4,000
Max. RCF	x g	2,585
Acceleration time	s	22
Braking time	s	20
Max. radius	cm	14.5
Min. temperature (only primo R) ¹⁾	°C	-9
Order no.		
Rotor	75007591	
Round bucket	75007555	

¹⁾ at max. speed and 23 °C room temperature

Buckets and adapters for the swinging bucket rotor 75007591					
Adapter for	Max. tube size (mm/inch)		Tubes per adapter	rotor	Order no.
	Ø	length			
1.5/2 ml micro tubes	11/0.4	42/1.7	10	40	75007547
7 ml DIN	12/0.5	102/4.0	5	20	75007545 ²⁾
7 ml blood sample	13/0.5	105/4.1	3	12	75007546 ²⁾
15 ml DIN/blood sample	17/0.7	104/4.1	3	12	75007544 ²⁾
25 ml DIN	25/1.0	110/4.3	1	4	75007543
50 ml DIN	35/1.4	105/4.1	1	4	75007542
100 ml	44/1.7	100/3.9	1	4	-
15 ml Falcon®	16.5/0.6	120/4.7	1	4	75007557
50 ml Falcon®	30/1.2	117/4.6	1	4	75007556
Aerosol tight cap for round bucket					75007598

²⁾ Distance pads must be used for tubes shorter than 80 mm (pack of 8, order no. 76003266)

Microlitre rotor 24 x 1.5/2 ml

- User orientated angle of 45°
- High performance of 21,885 x g for 24 x 1.5/2 ml

- Aerosol tight and infinitely autoclavable



Adapter sets for the microlitre rotor 75007593

Adapter set (24 pieces) for	Color	Order no.
0.5/0.6 ml microlitre tubes	turquoise	76003758
0.25/0.4 ml microlitre tubes	red	76003759
0.2 ml PCR tubes	grey	76003750

Microlitre rotor 45°

Max. capacity	ml	24 x 1.5/2
Max. speed	rpm	15,000
Max. RCF	x g	21,885
Acceleration time	s	25
Braking time	s	18
Max. radius	cm	8.7
Min. temperature (only primo R) ¹⁾	°C	4

Order no. 75007593

¹⁾ at max. speed and 23 °C room temperature

Microlitre rotor 24 x 1.5/2 ml

- 40° angle
- Polypropylene rotor resistant to chemicals
- Maximum performance of 16,060 x g
- Autoclavable (10 x)
- Quick closing snap lid
- Optional aerosol tight screw lid available



Adapter sets for the microlitre rotor 75007599

Adapter set (24 pieces) for	Color	Order no.
0.5/0.6 ml microlitre tubes	turquoise	76003758
0.25/0.4 ml microlitre tubes	red	76003759
0.2 ml PCR tubes	grey	76003750

Microlitre rotor 40°

Max. capacity	ml	24 x 1.5/2
Max. speed	rpm	13,000
Max. RCF	x g	16,060
Acceleration time	s	10
Braking time	s	14
Max. radius	cm	8.5
Min. temperature (only primo R) ¹⁾	°C	-3

Order no.

Rotor	75007599
Biosafety lid	75003326

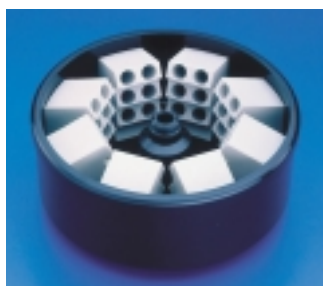
¹⁾ at max. speed and 23 °C room temperature

Microlitre swinging bucket rotor 12 x 1.5/2 ml

- High RCF of 16,438 x g
- Available adapters #3750, #3758 und #3759
- Separation of liquid multi-phase systems, e.g. extracts with organic solvents
- Centrifugation of filtration units
- Density gradient-separation of cells/cell organelles
- Semi-preparative centrifugation of proteins and DNA

Microlitre swinging bucket rotor		Biofuge® primo R
Max. capacity	ml	12 x 1.5/2
Max. load	g	12 x 4
Max. speed	rpm	13.000
Max. RCF	x g	16.438
Order no.		75007592





Drum rotor

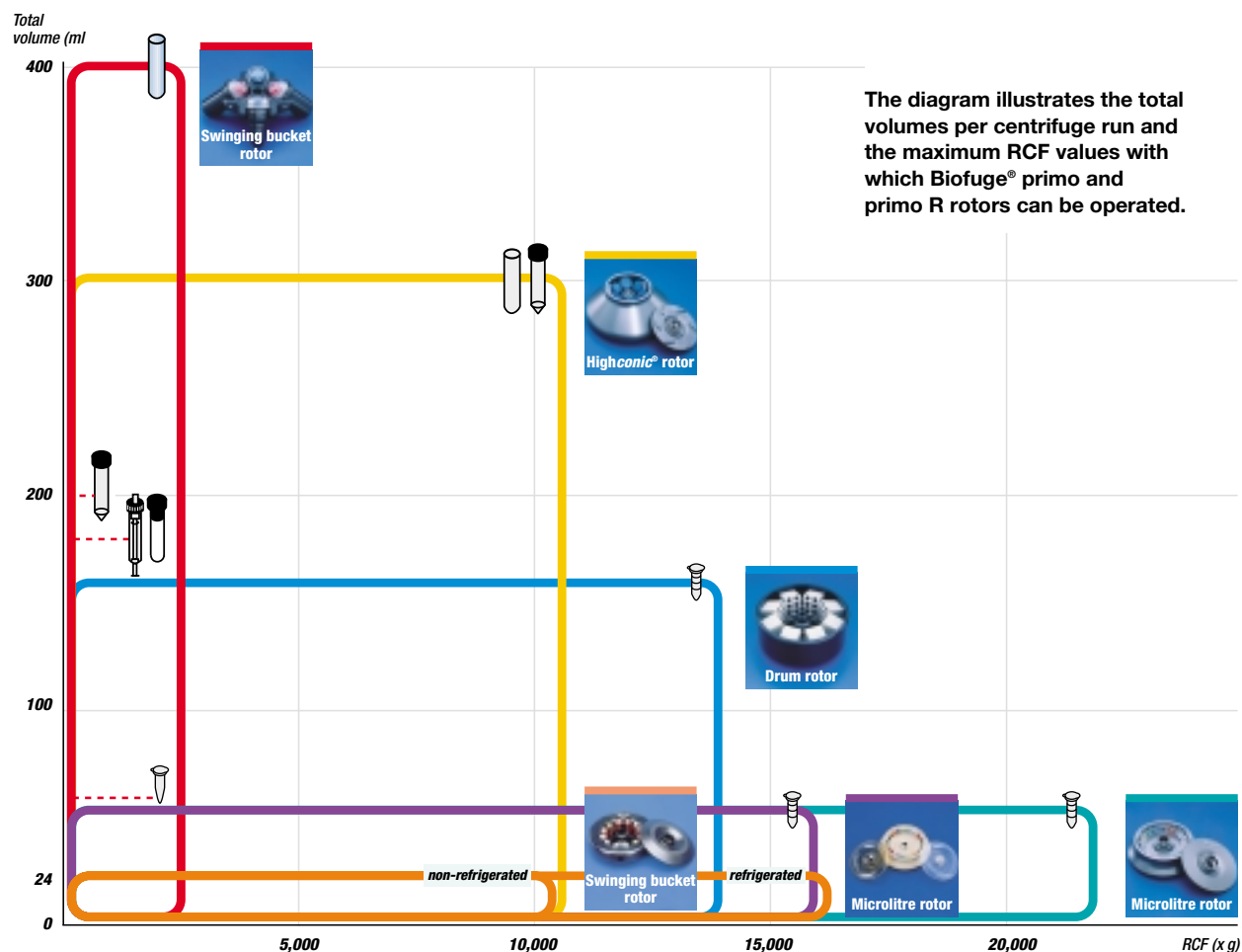
- Suitable for high capacities of up to 80 microlitre tubes
- Reduced braking and acceleration times
- Racks for every volume
- A 60° angle rack for 1.5 ml tubes makes operations easier
- PCR rack for 3 "PCR strips" with 8 tubes

Drum rotor			
Max. capacity	ml	80 x 1.5/2	
Max. speed	rpm	12,000	
Max. RCF	x g	14,005	
Acceleration time	s	31	
Braking time	s	20	
Max. radius	cm	8.7	
Min. temperature (only primo R) ¹⁾	°C	4	
Order no.		75007595	

¹⁾ at max. speed and 23 °C room temperature

Racks for the drum rotor 75007595				
Rack for	Tubes per adapter	rotor	Color	Order no.
1.5 ml microlitre tubes	10	80	yellow	76001499
1.5/2 ml microlitre tubes	10	80	red	76001244
1.5/2 ml microlitre tubes (60°)	6	48	grey	75001498
0.3 ml micro capillary tubes	8	64	blue	76001246
0.5/0.6 ml microlitre tubes	15	120	green	76001247
0.25/0.4 ml microlitre tubes	20	160	yellow	76001248
PCR strips with 8 tubes	3	12	nature	76001587

USE OF VERSATILE BIOFUGE® PRIMO AND PRIMO R FOR APPLICATIONS IN YOUR LABORATORY



TECHNICAL DATA

		Biofuge® primo	Biofuge® primo R
Drive		Induction drive without carbon brushes	Induction drive without carbon brushes
Control		EASYcontrol™ II microprocessor controlled	EASYcontrol™ II microprocessor controlled
Max. speed	rpm	15,000, adjustable in increments of 10	15,000, adjustable in increments of 10
Min. speed	rpm	300	300
Max. RCF	x g	21,885	21,885
Max. capacity (fixed angle rotor)		6 x 50 ml highspeed tubes 6 x 15/50 ml Falcon®	6 x 50 ml highspeed tubes 6 x 15/50ml Falcon®
Max. capacity (swinging bucket rotor)		4 x 100 ml DIN 4 x 15/50 ml Falcon® 12 x 7/15 ml blood sample	4 x 100 ml DIN 4 x 15/50 ml Falcon® 12 x 7/15 ml blood sample
Temperature range	° C	–	– 9 to + 40
Braking/accel. curves		9/2	9/2
Noise level at max. speed		< 62 dB	< 60 dB
Run time		0–9 hrs 59 mins, cont. operation (hold)	0–9 hrs 59 mins, cont. operation (hold)
Functions		RCF pre-selection, quick-run	RCF pre-selection, quick-run
Rotor recognition		automatic	automatic
Imbalance recognition		electronic, ideally tuned for every rotor	electronic, ideally tuned for every rotor
Program memory		The most recent data remains in the memory	The most recent data remains in the memory
Construction		Galvanised steel chassis with armoured chamber and plastic outer casing	Galvanised steel chassis with armoured chamber and plastic outer casing
Centrifuge protection		Lid lock and interlock	Lid lock and interlock
Dimensions (H x W x D)	mm	315 x 380 x 475	313 x 580 x 493
	inch	12.4 x 15 x 16.7	12.3 x 22.8 x 15.3
Weight	kg/lb	40/88	69.5/153
Power consumption	W	350	490
Test standards		Manufactured and tested in accordance with EN 61 010-1, EN 61 010-2-020, EN 50 081-1, EN 50 082-1; UVV VBG 7z test is not required	

ORDER NUMBERS

Biofuge® primo	230 V, 50/60 Hz, excluding accessories	75005181
	120 V, 50 Hz, excluding accessories	75005182
Biofuge® primo R	230 V, 50/60 Hz, excluding accessories	75005440
	120 V, 50 Hz, excluding accessories	75005441

Your Sales Contact

For Ordering or Technical Information

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