

# LABTECH

CENTRIFUGE CATALOG

LabTech

**QUALITY | RELIABILITY | VALUE**

[www.labtechsrl.com](http://www.labtechsrl.com)



# Elevate Your Daily Lab Routine

*Share good experience with us*

## QUALITY | RELIABILITY | VALUE

At LabTech, 'Quality, Reliability, Value' is more than just a slogan, it's the ethos that drives our operations. We pride ourselves on offering centrifuges that meet the industry's highest standards. With a diverse and segmented range, Labtech provides nearly tailored solutions to meet your specific laboratory needs. We are dedicated to producing lab instruments that are not only of high quality and reliability but also offer great value.

### QUALITY EXCELLENCE

In-house manufacturing of all the key components, including all metalwork, rotors and motors, within our own ISO 13485 and 9001 certified facilities allows us to maintain stringent quality control over every aspect of production, ensuring that each centrifuge meet high standards. By overseeing the process of producing centrifuges from start to finish, we embody our dedication to excellence in quality.



### SAFETY FIRST

Centrifuges are crucial, daily-use instruments operating at high RPMs, we put user safety before anything. By adhering to international CE regulations, we ensure comprehensive electrical and mechanical safety in every LabTech centrifuge. Additionally, our selectable third-party certified aerosol-tight rotors and buckets are designed to prevent the leakage of hazardous samples, offering an extra layer of protection for users.

Bio-Safe

Porton Down Certified

Bio-Safe

Manufacturer Validated



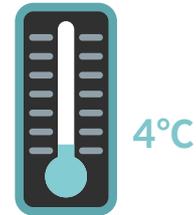
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## ENHANCE YOUR RESULT

LabTech's refrigerated centrifuges are equipped with advanced cooling systems from leading global brands. Essential for temperature-sensitive samples, these centrifuges preserve the integrity of live cells and prevent protein denaturation, ensuring reliable research outcomes.

Designed for durability and continual operation, they meet the demands of high-throughput labs and improve workflow efficiency

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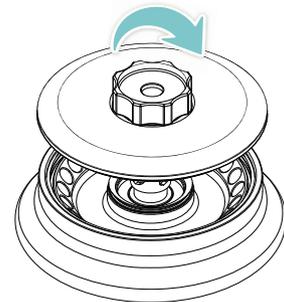
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## DESIGNED FOR EFFICIENCY

Microcentrifuge models are equipped with an easy lock mechanism that secures the rotor with a simple quarter twist, and the 1696R II model features a Snap-On bucket lid. These user-friendly designs minimize wrist strain, making them productive for highthroughput laboratories engaged in repetitive work.

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1/4 TWIST



Centrifuges are essential partners in advancing scientific research, pivotal for studying genetic material, enhancing cell culture techniques, and more. LabTech offers a diverse range of quality centrifuges designed to meet the varied needs of laboratories, combining reliability with good value. Equipped with these tools, researchers can navigate the challenges and push the boundaries of science. With LabTech, you're not just equipped, you're supported.



**LabTech**

# Technical Specifications

## Micro Centrifuges



mini 6



mini



1524



1536

	Description	Simple 6 x 2.0 mL mini-centrifuge designed for personal use	Simple 12 x 2.0 mL mini-centrifuge designed for quick spin downs, perfect for small workstations	Streamlined microcentrifuge dedicated for 24 x 2.0 mL	Compact 36 x 2.0 mL microcentrifuge designed for routine molecular biology applications of higher capacity
Tech spec.	Max. capacity	6 x 1.5 / 2.0 mL	12 x 1.5 / 2.0 mL	24 x 1.5 / 2.0 mL	36 x 1.5 / 2.0 mL
	Max. RPM	6,500 rpm	13,500 rpm	15,000 rpm	15,000 rpm
	Max. RCF	2,234 xg	12,300 xg	21,206 xg	21,583 xg
	Settable Min. RPM	-	1,200 rpm	500 rpm	500 rpm
	Available rotors	2	4	1	4
	Temperature range (°C)	-	-	-	-
	Noise level (dependent on rotor)	≤56 dB	≤56 dB	≤60 dB	≤60 dB
	Power supply (V/Hz)	100-230V, 50/60Hz	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)
	Power Requirement (VA)	7W	110VA	450VA	450VA
	Dimension (W x D x H, mm)	150 x 150 x 90 mm	208 x 245 x 145 mm	240 x 378 x 240 mm	240 x 378 x 240 mm
	Height when lid open (mm)	190 mm	280 mm	495 mm	495 mm
	Weight without rotor	650 g	4.4 kg	11.9 kg	11.9 kg
	Fixed Angle Max. RCF (xg)	8-place PCR strips	1,850	1,850	-
1.5/2.0 mL Microtubes		2,234	12,300	21,206	21,206
5 mL Microtubes		-	-	-	21,583
15 mL conical tubes		-	-	-	-
50 mL conical tubes		-	-	-	-
15 mL round tubes		-	-	-	-
50 mL round tubes		-	-	-	-
85 mL round tubes		-	-	-	-
250 mL flat bottles		-	-	-	-
500 mL flat bottles		-	-	-	-
1 L flat bottles		-	-	-	-
Swing Out Max. Tube capacity per run	Φ13 mm blood vacuum tubes	-	-	-	-
	Φ16 mm blood vacuum tubes	-	-	-	-
	15 mL conical tubes	-	-	-	-
	50 mL conical tubes	-	-	-	-
	PCR plates / MTP	-	-	-	-
	Deepwell plates (DWP)	-	-	-	-

		Low-speed		
				
<b>1730R</b>	<b>1848R</b>	<b>406</b>	<b>416</b>	<b>624R</b>
36 x 2.0 mL refrigerated microcentrifuge designed for back to back operations	48 x 2.0 mL refrigerated microcentrifuge with extended capacity up to 50 mL conical tubes	Basic clinical centrifuge for 6 or 12 bloodtube separation	Compact low-speed centrifuge for small throughput clinical and cell pelleting work (Air ventilated / Refrigerated)	
36 x 1.5 / 2.0 mL	48 x 1.5 / 2.0 mL, 8 x c50 mL, 4 x MTP	12 x vacuum tube	32 x vacuum tube	32 x vacuum tube
17,000 rpm	18,000 rpm	4,000 rpm	4,000 rpm	6,000 rpm
27,237 xg	30,356 xg	2,075 xg	2,774 xg	3,960 xg
500 rpm	300 rpm	500 rpm	500 rpm	300 rpm
7	8	2	7	8
-20°C to 40°C	-12°C to 40°C	-	-	-10°C to 40°C
≤56 dB	≤60 dB	≤52 dB	≤52 dB	≤60 dB
220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)
2.0KVA	2.0KVA	140VA	340VA	900VA
310 x 620 x 265 mm	380 x 654 x 312 mm	296 x 412 x 206 mm	375 x 480 x 260 mm	584 x 535 x 317 mm
585 mm	695 mm	565 mm	660 mm	725 mm
43 kg	53.5 kg	17.5 kg	19.5 kg	65 kg
11,722	11,722	-	-	-
27,237	30,536	-	-	-
22,967	20,595	1,458	2,120	2,170
-	8,635	2,075	2,774	2,773
-	8,893	-	2,549	3,960
-	-	2,075	2,700	2,773
-	8,651	-	2,549	3,856
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	48	12	32 / 20
-	-	12	32 / 20	32 / 20
-	-	6	12 / 8	24 / 8
-	-	-	10 / 4	10 / 4
-	4	-	4	4
-	-	-	2	2

# Technical Specifications

## Multi-purpose



1248



1248R



1236R



1580

Tech spec.	Description	High speed, small throughput multi-purpose centrifuge (Air ventilated / Refrigerated / Refrigerated, Floorstanding)			High speed, medium throughput multi-purpose centrifuge (Air ventilated / Refrigerated)
	Max. capacity	4 x 250 mL	4 x 250 mL	4 x 250 mL	4 x 750 mL
	Max. RPM	12,000 rpm	12,000 rpm	12,000 rpm	15,000 rpm
	Max. RCF	16,582 xg	16,582 xg	16,582 xg	24,249 xg
	Settable Min. RPM	500	500	500	500
	Available rotors	9	9	9	11
	Temperature range (°C)	-	-20°C to 40°C	-20°C to 40°C	-
	Noise level (dependent on rotor)	≤60 dB	≤60 dB	≤60 dB	≤60 dB
	Power supply (V/Hz)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)
	Power Requirement (VA)	900VA	2.5KVA	2.5KVA	1.5KVA
	Dimension (W x D x H, mm)	475 x 561 x 330 mm	655 x 620 x 355 mm	473 x 600 x 840 mm	540 x 650 x 380 mm
Height when lid open (mm)	805 mm	805 mm	1,270 mm	870 mm	
Weight without rotor	40 kg	78 kg	110 kg	57 kg	
Fixed Angle Max. RCF (xg)	8-place PCR strips	-	-	-	-
	1.5/2.0 mL Microtubes	15,520	15,520	15,520	25,249
	5 mL Microtubes	12,203	12,203	12,203	12,203
	15 mL conical tubes	16,582	16,582	16,582	16,582
	50 mL conical tubes	12,298	12,298	12,298	12,298
	15 mL round tubes	15,053	15,053	15,053	15,053
	50 mL round tubes	16,582	16,582	16,582	16,582
	85 mL round tubes	12,298	12,298	12,298	12,298
	250 mL flat bottles	-	-	-	-
	500 mL flat bottles	-	-	-	-
1 L flat bottles	-	-	-	-	
Swing Out Max. Tube capacity per run	Φ 13 mm blood vacuum tubes	-	48 / 30	48 / 30	48 / 30
	Φ 16 mm blood vacuum tubes	48 / 30	48 / 30	48 / 30	80 / 84
	15 mL conical tubes	36 / 12	36 / 12	36 / 12	64 / 56
	50 mL conical tubes	12 / 6	12 / 6	12 / 6	20 / 20
	PCR plates / MTP	16	16	16	16
Deepwell plates (DWP)	8	8	8	8	

		High Speed, High Capacity, Floor standing	
			
<b>1580R</b>	<b>1696R II</b>	<b>1736R</b>	<b>2236R</b>
High speed, medium throughput multi-purpose centrifuge (Air ventilated / Refrigerated)	High speed, High throughput Refrigerated multi-purpose centrifuge	High speed, High capacity floorstanding refrigerated centrifuges for samples requiring High RCF values of (32,310 / 54,111) xg and for harvesting large volume samples up to (3 / 6) L per run	
4 x 750 mL	4 x 1,000 mL	6 x 500 mL	6 x 1,000 mL
15,000 rpm	16,000 rpm	17,000 rpm	22,000 rpm
25,910 xg	27,991 xg	32,310 xg	54,111 xg
500	300	500	500
11	13	10	12
-20°C to 40°C	-11°C to 40°C	-20°C to 40°C	-20°C to 40°C
≤60 dB	<70 dB	≤56 dB	≤56 dB
220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 60Hz (220~230V, 50Hz, 110V 60Hz optional)	220-230V, 50/60Hz (110V 60Hz optional)	220-230V, 60Hz (220~230V, 50Hz, 110V 60Hz optional)
2.5KVA	2KVA	2.5KVA	4KVA
770 x 650 x 390	775 x 695 x 395	473 x 600 x 840	824 x 634 x 1,049
855	865	1,270	1,460
93 kg	132 kg	110 kg	240 kg
-	-	-	-
24,249	27,991	31,147	52,163
19,067	22,209	19,067	33,898
25,910	25,910	25,910	46,062
20,784	20,784	27,671	35,541
23,520	23,520	23,520	41,813
25,910	25,910	32,310	54,111
17,709	16,019	25,029	44,496
9,588	9,588	14,981	25,318
-	-	11,305	17,664
-	-	-	12,071
120 / 96	120 / 96	192 / 160	48
80 / 84	152 / 140	48	48
64 / 56	116 / 72	36	36
20 / 20	52 / 32	12	12
16	24	16	16
8	8	8	8

# Rotor Selection Guide

## Fixed Angle Rotor

Micro Centrifuge <b>mini 6,</b> <b>mini 6 RC</b> <small>Supplied with GRA-m2.0-6 and GRA-s0.2-16 rotors</small>	Rotor Cat. No.	GRA-m2.0-6	GRA-s0.2-16
	Max. Capacity	6 x 1.5 / 2.0 mL	16 x 0.2 mL
	Product		
	Max. RPM/RCF	6,500 / 2,234	6,500 / 1,412
	Adaptor	0,2,0,5	0,2,0,5

Micro Centrifuge <b>mini</b> <small>Supplied with GRF-m2.0-12 and 12 x 0.2 mL adaptor</small>	Rotor Cat. No.	GRA-s0.2-32	GRF-m1.8-10	GRF-m2.0-12
	Max. Capacity	32 x 0.2 mL	12 x 1.8 mL cytotube	12 x 1.5 / 2.0 mL
	Product			 <small>Aluminum lid option available</small>
	Max. RPM/RCF	6,000 / 1,850	13,500 / 12,300	13,500 / 12,300
	Adaptor	-	-	0,2,0,5

Micro Centrifuge <b>1524</b> <small>Supplied with GRF-m2.0-24 rotor</small>	Rotor Cat. No.	GRF-m2.0-24
	Max. Capacity	24 x 1.5 / 2.0 mL
	Product	
	Max. RPM/RCF	15,000 / 21,206
	Adaptor	0,2,0,5

Micro Centrifuge <b>1536</b>	Rotor Cat. No.	GREB-s0.2-32	GREB-m2.0-24	GREB-m2.0-36	GRE-m5.0-10
	Max. Capacity	32 x 0.2 mL	24 x 1.5 / 2.0 mL	36 x 1.5 / 2.0 mL	10 x 5 mL
	Product				
	Max. RPM/RCF	15,000 / 14,187	15,000 / 21,206	15,000 / 21,206	15,000 / 21,583
	Adaptor	-	0,2,0,5	0,2,0,5	-

Micro Centrifuge <b>1730R</b>	Rotor Cat. No.	GRE-M-s0.2-64	GRE-M-m2.0-18	GREB-M-m2.0-24	GREB-M-m2.0-30	GREB-M-m2.0-36	GRE-M-m5.0-12	GRD-M-m2.0-16
	Max. Capacity	64 x 0.2 mL	18 x 2.0 mL	24 x 1.5 / 2.0 mL	30 x 1.5 / 2.0 mL	36 x 1.5 / 2.0 mL	12 x 5.0 mL	16 x 1.5 / 2.0 mL
	Product		 <small>For 2.0 mL filter tubes</small>					
	Max. RPM/RCF	12,500 / 11,722	15,000 / 18,891	17,000 / 27,237	15,000 / 24,249	15,000 / 21,206	15,000 / 22,967	13,000 / 15,682
	Adaptor	-	0,2,0,5	0,2,0,5	0,2,0,5	0,2,0,5	-	0,2,0,5

Micro Centrifuge <b>1848R</b>	Rotor Cat. No.	GRE-M-s0.2-64	GREB-M-m2.0-24	GRE-M-m2.0-48	GRE-M-m5.0-20	GRF-M-c15-12	GRF-M-c50-8	GRD-M-m2.0-24	GRD-M-mw-2
	Max. Capacity	64 x 0.2 mL	24 x 1.5 / 2.0 mL	48 x 1.5 / 2.0 mL	20 x 5.0 mL	12 x 15 mL conical	8 x 50 mL conical	24 x 2.0 mL	2 x 2 MTP's
	Product								
	Max. RPM/RCF	12,500 / 11,722	18,000 / 30,536	13,000 / 18,479	13,000 / 20,595	8,500 / 8,611	8,000 / 8,893	13,000 / 16,438	6,100 / 3,432
	Adaptor	-	0,2,0,5	0,2,0,5	0,2,0,5	5, 14	c15, c25, 30, 50	0,2,0,5	-

Low-speed Centrifuge <b>406</b> <small>Supplied with GRA-15-6 or GRA-15-12 rotor</small>	Rotor Cat. No.	GRA-15-6	GRA-15-12
	Max. Capacity	6 x 15 mL 6 x $\Phi$ 16 VT	6 x 15 mL 12 x $\Phi$ 16 VT
	Product		
	Max. RPM/RCF	4,000 / 2,075	4,000 / 2,057
	Adaptor	$\Phi$ 13 VT, 5, 14	$\Phi$ 13 VT, 5, 14

Low-speed Centrifuge <b>416</b> <b>624R</b>	Rotor Cat. No.	416	-	-	GRA-S-15-16	GRA-S-50-10	GRA-S-c50-10
		624R	GRF-SR-c50-6	GRA-SR-15-24	-	GRA-SR-50-10	GRA-SR-c50-10
	Max. Capacity		6 x 50 mL conical	24 x 15 mL 24 x $\Phi$ 16 VT	16 x 15 mL 16 x $\Phi$ 16 VT	10 x 50 mL	10 x 50 mL conical
	Product						
	Max. RPM/RCF	416	-	-	4,000 / 2,700	4,000 / 2,549	4,000 / 2,508
		624R	6,000 / 3,960	4,000 / 2,773	-	4,000 / 2,549	4,000 / 2,508
	Adaptor		c15, c25, 30, 50	$\Phi$ 13 VT, 5, 14	$\Phi$ 13 VT, 5, 14	14, 15, c15, c25, 30, c50	c15, c25, 30, 50

 Bio - Safe

## Fixed Angle Rotor

Multi Purpose, High-speed Centrifuges	Rotor Cat. No.	1248 / 1248R 1236R / 1580 / 1580R	GRF-G-m2.0-30	-	-	GRF-G-c15-12	GRF-G-50-8	
		1696R II	-	GRF-B-m2.0-48	GRF-B-m5.0-20	GRF-B-c15-12	GRF-B-50-8	
	Max. Capacity		30 x 1.5 / 2.0 mL	48 x 1.5 / 2.0 mL	20 x 5.0 mL	12 x 15 mL conical	8 x 50 mL	
	Product							
	Max. RPM/ RCF	1248 1248R 1236R	12,000 / 15,520	-	-	12,000 / 16,582	12,000 / 16,582	
		1580	15,000 / 24,249	-	-	12,000 / 16,582	12,000 / 16,582	
		1580R	15,000 / 24,249	-	-	15,000 / 25,910	15,000 / 25,910	
		1696R II	-	16,000 / 27,991	13,500 / 22,209	15,000 / 25,910	15,000 / 25,910	
	Adaptor		0.2, 0.5	0.2, 0.5	-	5	15, c15, c25, 30	
	1248 1248R 1236R 1580 1580R 1696R II	Rotor Cat. No.	1248 / 1248R 1236R / 1580 / 1580R	GRF-G-c50-8	GRF-G-85-6	GRF-G-250-6	GRA-G-15-24	
			1696R II	GRF-B-c50-8	GRF-B-85-6	GRF-B-250-6	-	
		Max. Capacity		8 x 50 mL conical	6 x 85 mL	6 x (250 & 15 mL)	24 x 15 mL 24 x Φ16 VT	
		Product						
		Max. RPM/ RCF	1248 1248R 1236R	10,000 / 12,298	10,000 / 12,298	-	4,000 / 3,134	
1580			10,000 / 12,298	10,000 / 12,298	-	4,000 / 3,134		
1580R			13,000 / 20,784	12,000 / 17,709	8,000 / 9,588	4,000 / 3,134		
1696R II			13,000 / 20,784	12,000 / 16,019	8,000 / 9,588	-		
Adaptor		c15, c25, 30, 50	15, c15, c25, 30, 50, c50	c25, c50, 85, 100	Φ 13 VT, 5, 14			
Floor Standing, High-speed Centrifuges		Rotor Cat. No.		GRF-L-m2.0-30	GRF-L-c15-12	GRF-L-50-6	GRF-L-50-8	GRF-L-c50-8
		Max. Capacity		30 x 1.5 / 2.0 mL	12 x 15 mL conical	6 x 50 mL	8 x 50 mL	8 x 50 mL conical
		Product						
		Max. RPM/ RCF	1736R	17,000 / 31,147	15,000 / 25,910	17,000 / 32,310	15,000 / 25,910	15,000 / 27,671
			2236R	22,000 / 52,163	20,000 / 46,062	22,000 / 54,111	20,000 / 46,062	17,000 / 35,541
	Adaptor		0.2, 0.5	5	30	15, c15, c25, 30	c15, c25, 30, 50	
	Rotor Cat. No.		GRF-L-85-6	GRF-L-250-6	GRF-L-500-6	GRF-L-1000-4	GRF-L-1000-6	
	Max. Capacity		6 x 85 mL	6 x (250 & 15 mL)	6 x 500 mL	4 x 1,000 mL	6 x 1,000 mL	
	Product							
	Max. RPM/ RCF	1736R	15,000 / 25,029	10,000 / 14,981	8,000 / 11,305	-	-	
		2236R	20,000 / 44,496	13,000 / 25,318	10,000 / 17,664	8,000 / 12,071	7,000 / 10,825	
	Adaptor		15, c15, c25, 30, 50, c50	c25, c50, 85, 100	250	250, 500	250, 500	

# Rotor Selection Guide

## Swing Out Rotor

Rotor Cat. No.	Low-speed Centrifuges	416	GRS-S-mw-2	GRS-S-15-6	GRS-S-50-4			GRS-S-100-4	
		624R	GRS-SR-mw-2	GRS-SR-15-6	GRS-SR-50-4			GRS-SR-100-4	
Bucket Cat. No.			-	GLB-d15-15	GLB-50-50	GLB-c50-50	GLB-d15-50	GLB-dc15-50	GLBB-b100-100
Bio - Safe			-	-	-	-	-	-	●
Product									
Max. No. of tube per rotor	Φ 13 VT		-	12	-	-	-	-	20
	Φ 16 VT		-	12	-	-	-	-	20
	15 mL round		-	-	4	-	-	-	12 *
	15 mL conical		-	-	4	-	-	8	12 *
	50 mL round		-	-	4	4	8	-	4
	50 mL conical		-	-	4	4	-	-	4
	100 mL round		-	-	-	-	-	-	4 *
	MWP		4	-	-	-	-	-	-
DWP		2	-	-	-	-	-	-	

Rotor Cat. No.	Multi Purpose, High-speed Centrifuges	1248 / 1248R / 1236R	GRS-G-100-6					GRS-G-r250-4	
		1580 / 1580R	GRS-G-100-6					GRS-G-r250-4	
		1696R II	GRS-B-100-6					GRS-B-250-4	
Rotor Cat. No.	Floor Standing, High-speed Centrifuges	1736R / 2236R	-					GRS-L-r250-4	
		Bucket Cat. No.			GLBB-b100-100	GLB-dc50-100	GLB-15-8-100	GLBB-bd15-100	GLBB-bdc15-100
Bio - Safe			●	-	-	●	●	-	-
Product									
Max. No. of tube per rotor	Φ 13 VT		30	-	48	-	-	48	-
	Φ 16 VT		30	-	48	-	-	48	-
	15 mL Round		18 *	-	12	12	-	48	-
	15 mL Conical		18 *	12	-	-	12	36	-
	50 mL Round		6	12	-	-	-	16	-
	50 mL Conical		6	12	-	-	-	12	-
	100 mL Round		6 *	-	-	-	-	-	-
	250 mL Flat		-	-	-	-	-	4	-
	250 mL Conical		-	-	-	-	-	-	-
	500 mL Flat		-	-	-	-	-	-	-
	500 mL Conical		-	-	-	-	-	-	-
	750 mL Flat		-	-	-	-	-	-	-
	1,000 mL Flat		-	-	-	-	-	-	-
MWP		-	-	-	-	-	-	16	
DWP		-	-	-	-	-	-	4	

GRS-S-100-4										
GRS-SR-100-4										
GLB-dc50-100	GLB-15-8-100	GLBB-bd15-100	GLBB-bdc15-100							
-	-	●	●							
										
-	32	-	-							
-	32	-	-							
-	8	8	-							
8	-	-	8							
8	-	-	-							
8	-	-	-							
-	-	-	-							
-	-	-	-							
-	-	-	-							
GRS-G-250-4										
-										
GRS-G-250-4	GRS-G-r750-4	GRS-G-750-4		-		-		-		
GRS-B-250-4	GRS-B-r750-4	-		GRS-B-750-4		GRS-B-1000-4		-		
GRS-L-250-4										
-										
GLB-250-250	GLB-r750-r750	GLP-mw-r750	GLBB-b750-750	GLP-mw-750(D)	GLBB-b750-750B	GLBB-mw-750B	GLB-h1000-1000	GLBB-b1000-1000	GLBB-br1000-1000	
-	-	-	●	-	●	●	-	●	●	
										
32	120	-	96	-	96	-	192	96	160	
28	80	-	84	-	84	-	152	84	140	
16	80	-	76	-	76	-	116	76	80	
16	64	-	56	-	56	-	116	56	72	
8	32	-	28	-	28	-	52	28	40	
4	20	-	20	-	20	-	52	20	32	
4	-	-	-	-	-	-	-	-	-	
4	4	-	4	-	4	-	8	4	-	
4	4	-	4*	-	4*	-	-	4	-	
-	4	-	4*	-	4*	-	-	4	-	
-	4	-	4*	-	4*	-	-	4	-	
-	-	-	4*	-	4*	-	-	4	-	
-	-	-	-	-	-	-	-	4*	-	
-	-	16	-	16	-	16	-	-	24	
-	-	4	-	4	-	4	-	-	4	

\* Cannot use cap sealing

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# Function Icons



## RPM/RCF Conversion

One touch conversion of RPM and g-force.



## Fast Cool

Pre-cooling to 4°C before running for temperature-sensitive samples.



## Rotor ID

Limit the setting of RPM above the maximum by automatic rotor identification.



## Up to 100 or 10 Program Memory

Enables to store different parameter settings.



## Motorized Lid Mechanics

Prevents unintentional opening of the lid and makes the lid easy to close.



## Short Spin (Pulse)

Separate button for pulse function.



## Lid Drop Protection

Provides easy and safe loading and unloading of sample.



## At Set Speed Time Mode

Time counting button from set speed or starting.



## Automatic Lid Opening

Visualizes the end of the run by lid opening.



## ACC/DEC Rate Control

Different speed rate settings of acceleration (9 steps) / deceleration. (10 steps)



## Bio-Safe Accessories

Certified aerosol tightness for safe centrifugation of hazardous sample.



## Variety of Rotors, Buckets, and Adaptors

Wide range of rotors, buckets, and adaptors for various applications.



## Intuitive Control Pad with Numeric Input

Easy setting and editing of run parameters.user environments. (2236R only)



## Soft Touch Keypad

Sensible for both hand and glove.

# Micro Centrifuges



**mini 6 / mini 6 RC**



**mini**



**1524**

Max. capacity		6 x 1.5 / 2.0 mL	12 x 1.5 / 2.0 mL	24 x 1.5 / 2.0 mL
Max. RPM		6,500 rpm	13,500 rpm	15,000 rpm
Max. RCF		2,234 xg	12,300 xg	21,206 xg
High speed / Fixed angle rotor (Max. RCF)	8-place PCR strips	1,412 xg	1,850 xg	-
	1.5/2.0 mL microtubes	2,234 xg	12,300 xg	21,206 xg
	5 mL microtubes	-	-	-
	15 mL microtubes	-	-	-
	50 mL conical tubes	-	-	-
	50 mL round tubes	-	-	-
	PCR plates / MTP	-	-	-



**1536**



**1730R**



**1848R**

36 x 1.5 / 2.0 mL	36 x 1.5 / 2.0 mL	48 x 1.5 / 2.0 mL, 8 x c50mL, 4 x MTP
15,000 rpm	17,000 rpm	18,000 rpm
21,583 xg	27,237 xg	30,356 xg
21,583	11,722	11,722
21,206	27,237	30,536
21,583	22,967	20,595
-	-	8,635
-	-	8,893
-	-	8,651
-	-	3,432

# mini 6 / mini 6 RC

## Micro Centrifuge



### Features

- 6 x 2.0 mL mini centrifuge designed for personal use.
- Simple start / stop by closing and opening the lid.
- Selectable operation modes between short spin and continuous 15 minutes.
- Interchangeable rotors for 6 micro tubes and 2 PCR strips.
- Portable battery powered RC model available.

### Technical Specifications

<b>Max. RPM/PCF for Fixed Angle</b>	6,500 rpm / 2,234 xg
<b>Max. Capacity for Fixed Angle</b>	6 x 1.5/2.0 mL, 2 x 8 tube PCR strips
<b>Acc. Time to Max. Speed</b>	≤3 sec
<b>Dec. Time from Max. Speed</b>	≤4 sec
<b>Noise Level (dependent on rotor)</b>	≤50 dB
<b>Power Supply (V/Hz)</b>	100~240 V, 50/60 Hz

<b>Power input</b>	OUTPUT DC 12V 2A ,INPUT AC100~240V, 50/60Hz; (110V optional)
<b>Power Requirement</b>	7 W
<b>Dimension (W x D x H)</b>	150 x 150 x 90 mm
<b>Net Weight</b>	mini 6 : 650 g / mini 6 RC : 790 g
<b>Cat. No.</b>	AC-mini6 / AC-mini6-RC

## Fixed Angle Rotor, GRA-m2.0-6

- **Capacity : 6 x 1.5 / 2.0 mL**
- Max. RPM : 6,500
- Max. RCF : 2,234 xg



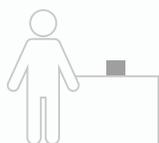
Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	1,710	GAS-m0.5(2)
0.2	1,379	GAS-m0.2(2)

## Fixed Angle Rotor, GRA-s0.2-16

- **Capacity : 2 x 8-Tube PCR strips, 16 x 0.2 mL**
- Max. RPM : 6,500
- Max. RCF : 1,412 xg



# mini Micro Centrifuge



## Features

- 12 x 2.0 mL air ventilated microcentrifuge, 13,500 rpm / 12,300 xg.
- Compact design built to accommodate PCR tubes, microtubes, and cryotubes. (0.2 to 2.0 mL)
- Patented air-cooling to minimize noise and heat generation.
- A separate "PULSE" key for a quick spin.
- Very quiet operation at less than 56 dB allows for a comfortable laboratory environment.
- Supplied with autoclavable 12-place fixed angle micro-rotor, snap-fit plastic rotor lid, and 12 adaptors for 0.2 mL PCR tubes.

## Technical Specifications

<b>Max. RPM/PCF for Fixed Angle</b>	13,500 rpm / 12,300 xg	<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Max. Capacity for Fixed Angle</b>	12 x 1.5/2.0 mL, 4 PCR strips	<b>Power Requirement</b>	110 VA
<b>Time Control</b>	Pulse, timed < 30 min or continuous	<b>Dimension (W x D x H)</b>	208 x 245 x 145 mm
<b>RCF/RPM Conversion</b>	Yes	<b>Net Weight</b>	4.4 kg
<b>Acc. Time to Max. Speed</b>	≤12 sec	<b>CE MARK</b>	Yes
<b>Dec. Time from Max. Speed</b>	≤16 sec	<b>Cat No.</b>	GZ-1312
<b>Noise Level (dependent on rotor)</b>	≤56 dB		

## Fixed Angle Rotor, GRF-m2.0-12

- **Capacity : 12 x 1.5 / 2.0 mL**
- Max. RPM : 13,500
- Max. RCF : 12,300 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	10,290	GAS-m0.5(2)
0.2	8,863	GAS-m0.2(2)

## Fixed Angle Rotor, GRF-m2.0-12-b

- **Capacity : 12 x 1.5 / 2.0 mL**
- Max. RPM : 13,500
- Max. RCF : 12,300 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	10,290	GAS-m0.5(2)
0.2	8,863	GAS-m0.2(2)

## Fixed Angle Rotor, GRF-m1.8-10

- **Capacity : 10 x 1.8 mL Cryotube**
- Max. RPM : 13,500
- Max. RCF : 12,300 xg



## Fixed Angle Rotor, GRA-s0.2-32

- **Capacity : 4 x 8-Tube PCR strips, 32 x 0.2 mL**
- Max. RPM : 6,000
- Max. RCF : 1,850 xg



# 1524 Micro Centrifuge



## Features

- 24 x 2.0 mL dedicated air ventilated microcentrifuge, 15,000 RPM / 21,206 xg.
- Quick Acc / Dec time of ≤15 sec.
- Compact and light-weight design.
- ‘Snap-fit’ rotor for quick and easy task setup.
- Simultaneous display of all parameters.
- Numeric input keypad and Icon buttons.

## Technical Specifications

<b>Max. RPM/RCF for Fixed Angle</b>	15,000 rpm / 21,206 xg
<b>Max. Capacity for Fixed Angle</b>	24 x 1.5/2.0 mL
<b>Acc. Time to Max. Speed</b>	≤15 sec
<b>Dec. Time from Max. Speed</b>	≤15 sec
<b>Time Control</b>	Pulse, timed <100 min or continuous
<b>Time Counting Range</b>	Selectable, at set speed or from starting
<b>RCF/RPM Conversion</b>	Yes
<b>Noise Level (dependent on rotor)</b>	≤60 dB

<b>ACC/DEC Ramps</b>	9/10
<b>Program Memory</b>	100
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Power Requirement</b>	450 VA
<b>Dimension (W x D x H)</b>	240 x 378 x 240 mm
<b>Net Weight</b>	11.9 kg
<b>CE MARK</b>	Yes
<b>Cat No.</b>	GZ-1524

## Fixed Angle Rotor, GRF-m2.0-24

- **Capacity : 24 x 1.5 / 2.0 mL**
- Max. RPM : 15,000
- Max. RCF : 21,206 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	10,290	GAS-m0.5(2)
0.2	8,863	GAS-m0.2(2)

# 1536 Micro Centrifuge



## Features

- Compact 36 x 2.0 mL microcentrifuge designed for routine molecular biology applications of higher capacity.
- Bio-Safe Rotors ensure safe centrifugation of hazardous samples.
- Easy-Lock rotors for quick closing and opening.
- Quick Acc / Dec time of  $\leq 15$  sec.
- Compact and light-weight design.
- Simultaneous display of all parameters.
- Numeric input keypad and Icon buttons

## Technical Specifications

<b>Max. RPM/RCF for Fixed Angle</b>	15,000 rpm / 21,583 xg
<b>Max. Capacity for Fixed Angle</b>	36 x 1.5/2.0 mL, 10 x 5.0 mL, 4 PCR strips
<b>Acc. Time to Max. Speed</b>	$\leq 15$ sec
<b>Dec. Time from Max. Speed</b>	$\leq 15$ sec
<b>Time Control</b>	Pulse, timed <100 min or continuous
<b>Time Counting Range</b>	Selectable, at set speed or from starting
<b>RCF/RPM Conversion</b>	Yes
<b>Noise Level (dependent on rotor)</b>	$\leq 60$ dB

<b>ACC/DEC Ramps</b>	9/10
<b>Program Memory</b>	100
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Power Requirement</b>	450 VA
<b>Dimension (W x D x H)</b>	240 x 378 x 240 mm
<b>Net Weight</b>	11.9 kg
<b>CE MARK</b>	Yes
<b>Cat No.</b>	GZ-1536

## Fixed Angle Rotor, GRE-m5.0-10

- **Capacity : 10 x 5 mL Conical**
- Max. RPM : 15,000
- Max. RCF : 21,583 xg



## Fixed Angle Rotor, GREB-m2.0-36

- **Capacity : 36 x 1.5 / 2.0 mL + 12 x 0.2 mL**
- Max. RPM : 15,000
- Max. RCF : 21,206 xg



**Bio-Safe** Manufacturer Validated

Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	18,363	GAS-m0.5(2)
0.2	16,854	GAS-m0.2(2)

## Fixed Angle Rotor, GREB-m2.0-24

- **Capacity : 24 x 1.5 / 2.0 mL**
- Max. RPM : 15,000
- Max. RCF : 21,206 xg



**Bio-Safe** Porton Down Certified

Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	18,363	GAS-m0.5(2)
0.2	16,854	GAS-m0.2(2)

## Fixed Angle Rotor, GREB-s0.2-32

- **Capacity : 4 x 8-Tube PCR strips, 32 x 0.2 mL**
- Max. RPM : 15,000
- Max. RCF : 14,187 xg



**Bio-Safe** Manufacturer Validated

# 1730R Micro Centrifuge



## Features

- 36 x 2.0 mL refrigerated microcentrifuge designed for continual operations.
- Fast cool function, Pre-cooling to 4°C for temperature-sensitive samples.
- Quiet Operation at less than 56 dB ensures a comfortable laboratory environment.
- Bio-Safe Rotors ensure safe centrifugation of hazardous samples.
- Easy-Lock Rotors allow for quick and secure rotor closure.
- High-neck rotor specially designed for 2.0 mL filter tubes.

## Technical Specifications

<b>Max. RPM/PCF for Fixed Angle</b>	17,000 rpm / 27,237 xg
<b>Max. RPM/PCF for Swing-out</b>	13,000 rpm / 16,343 xg
<b>Max. Capacity for Fixed Angle</b>	36 x 1.5/2.0 mL, 12 x 5.0 mL, 8 PCR strips
<b>Max. Capacity for Swing-out</b>	4 x 4 x 1.5/2.0 mL
<b>Temp. Range (°C)</b>	-20°C to 40°C
<b>Fast Cool Button</b>	Yes
<b>Time Control</b>	Pulse, timed <100 min or continuous
<b>Time Counting Range</b>	Selectable, at set speed or from starting
<b>Noise Level (dependent on rotor)</b>	≤56 dB

<b>RCF/RPM Conversion</b>	Yes
<b>ACC/DEC Ramps</b>	9/10
<b>Program Memory</b>	100
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Power Requirement</b>	2.0 kVA
<b>Dimension (W x D x H)</b>	310 x 620 x 265 mm
<b>Net Weight</b>	43 kg
<b>CE MARK</b>	Yes
<b>Cat No.</b>	GZ-1730R

## Fixed Angle Rotor, GRE-M-m5.0-12

- **Capacity : 12 x 5 mL**
- Max. RPM : 15,000
- Max. RCF : 22,967 xg



## Fixed Angle Rotor, GREB-M-m2.0-36

- **Capacity : 36 x 1.5 / 2.0 mL + 12 x 0.2 mL**
- Max. RPM : 15,000
- Max. RCF : 21,206 xg



**Bio-Safe**

Manufacturer Validated

Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	18,363	GAS-m0.5(2)
0.2	16,854	GAS-m0.2(2)

## Fixed Angle Rotor, GREB-M-m2.0-30

- **Capacity : 30 x 1.5 / 2.0 mL**
- Max. RPM : 15,000
- Max. RCF : 24,249 xg



**Bio-Safe**

Manufacturer Validated

Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	21,633	GAS-m0.5(2)
0.2	19,872	GAS-m0.2(2)

## Fixed Angle Rotor, GREB-M-m2.0-24

- **Capacity : 24 x 1.5 / 2.0 mL**
- Max. RPM : 17,000
- Max. RCF : 27,237 xg



**Bio-Safe**

Porton Down Certified

Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	23,910	GAS-m0.5(2)
0.2	21,648	GAS-m0.2(2)

## Fixed Angle Rotor, GRE-M-m2.0-18

- Capacity : 18 x 2.0 mL filter tube
- Max. RPM : 15,000
- Max. RCF : 18,891 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	16,049	GAS-m0.5(2)
0.2	14,540	GAS-m0.2(2)

## Fixed Angle Rotor, GRE-M-s0.2-64

- Capacity : 8 x 8-Tube PCR strips, 64 x 0.2 mL
- Max. RPM : 12,500
- Max. RCF : 11,722 xg



## Windshield Swing-out Rotor, GRD-M-m2.0-16

- Capacity : 16 x 1.5 / 2.0 mL
- Max. RPM : 13,000
- Max. RCF : 15,682 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	13,982	GAS-m0.5(2)
0.2	12,470	GAS-m0.2(2)

# 1848R Micro Centrifuge



## Features

- 48 x 2.0 mL refrigerated microcentrifuge with extend capacity up to 50 mL tubes and Microplates.
- Fast cool function, Pre-cooling to 4°C for temperature-sensitive samples.
- Equipped with inverter type compressor, very quiet and high efficiency operation.
- Bio-Safe Rotors ensure safe centrifugation of hazardous samples.
- Easy-Lock Rotors allow for quick and secure rotor closure.

## Technical Specifications

<b>Max. RPM/PCF for Fixed Angle</b>	18,000 rpm / 30,536 xg
<b>Max. RPM/PCF for Swing-out</b>	13,000 rpm / 16,438 xg
<b>Max. Capacity for Fixed Angle</b>	8 x c50 mL, 20 x 5.0 mL, 48 x 2.0 mL
<b>Max. Capacity for Swing-out</b>	6 x 4 x 2.0 mL, 2 x 2 MTPs
<b>Temp. Range (°C)</b>	-12°C to 40°C
<b>Fast Cool Button</b>	Yes
<b>Time Control</b>	Timed < 10 hr or Continuous
<b>Time Counting Range</b>	Selectable, at set speed or from starting
<b>Noise Level (dependent on rotor)</b>	< 60dB

<b>ACC/DEC Ramps</b>	9/10
<b>Program Memory</b>	100
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Power Requirement</b>	2.0 kVA
<b>Dimension (W x D x H)</b>	380 x 654 x 312 mm
<b>Net Weight</b>	53.5kg
<b>CE MARK</b>	Yes
<b>Cat No.</b>	GZ-1848R

## Fixed Angle Rotor, GRF-M-c50-8

- Capacity : 8 x 50 mL Conical
- Max. RPM : 8,500
- Max. RCF : 8,893 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
50	8,651	GAS-50(c50)
30	8,595	GAS-30(c50)
25 conical	7,544	GAS-c25(c50)
15 conical	8,635	GAS-c15(c50)

## Fixed Angle Rotor, GRF-M-c15-12

- Capacity : 12 x 15 mL Conical
- Max. RPM : 8,500
- Max. RCF : 8,611 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
14	7,843	GAS-14(c15)
5	6,842	GAS-c5(c15)

## Fixed Angle Rotor, GRE-M-m5.0-20

- Capacity : 20 x 5 mL
- Max. RPM : 13,000
- Max. RCF : 20,595 xg



## Fixed Angle Rotor, GRE-M-m2.0-48

- Capacity : 48 x 1.5 / 2.0 mL
- Max. RPM : 13,000
- Max. RCF : 18,479 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	16,532	GAS-m0.5(2)
0.2	15,210	GAS-m0.2(2)

## Fixed Angle Rotor, GREB-M-m2.0-24

- Capacity : 24 x 1.5 / 2.0 mL
- Max. RPM : 18,000
- Max. RCF : 30,536 xg



**Bio-Safe** Porton Down Certified

Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	26,443	GAS-m0.5(2)
0.2	24,270	GAS-m0.2(2)

## Fixed Angle Rotor, GRE-M-s0.2-64

- Capacity : 8 x 8-Tube PCR strips, 64 x 0.2 mL
- Max. RPM : 12,500
- Max. RCF : 11,722



## Windshield Swing-out Rotor, GRD-M-m2.0-24

- Capacity : 24 x 1.5 / 2.0 mL
- Max. RPM : 13,000
- Max. RCF : 16,438 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	14,737	GAS-m0.5(2)
0.2	13,226	GAS-m0.2(2)

## Windshield Swing-out Rotor, GRD-M-mw-2

- Capacity per rotor : 4 x MTP
- Max. RPM : 6,100
- Max. RCF : 3,432 xg



# Multi Purpose, High-speed Centrifuges



**1248**



**1248R**

Floor standing model 1236R

Max. capacity		4 x 250 mL	4 x 250 mL
Max. RPM		12,000 rpm	12,000 rpm
Max. RCF		16,582 xg	16,582 xg
High speed / Fixed angle rotor (Max. RCF)	1.5/2.0 mL Microtubes	15,520	15,520
	5 mL Microtubes	12,203	12,203
	15 mL conical tubes	16,582	16,582
	50 mL conical tubes	12,298	12,298
	15 mL round tubes	15,053	15,053
	50 mL round tubes	16,582	16,582
	85 mL round tubes	12,298	12,298
	250 mL flat bottles	-	-
Low speed / Swing out rotor (Max. Capacity per run)	Φ 13 mm blood vacuum tubes	48 / 30	48 / 30
	Φ 16 mm blood vacuum tubes	48 / 30	48 / 30
	15 mL conical tubes	36 / 12	36 / 12
	50 mL conical tubes	12 / 6	12 / 6
	PCR plates/MTP	16	16
	Deepwell plates (DWP)	8	8



**1580**



**1580R**

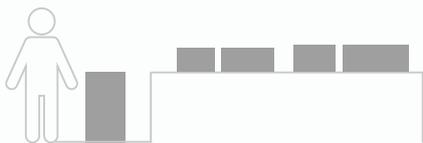


**1696R II**

4 x 750 mL	4 x 750 mL	4 x 1,000 mL
15,000 rpm	15,000 rpm	16,000 rpm
24,249 xg	25,910 xg	27,590 xg
25,249	25,249	27,991
12,203	19,067	22,209
16,582	25,910	25,910
12,298	20,784	20,784
15,053	23,520	23,520
16,582	25,910	25,910
12,298	17,709	16,019
-	9,588	9,588
120 / 96	192 / 160	192 / 160
80 / 84	152 / 140	152 / 140
64 / 56	116 / 72	116 / 72
20 / 20	52 / 32	52 / 32
16	24	24
8	8	-

# 1236R, 1248, 1248R, 1580, 1580R

Multi Purpose, High-speed Centrifuges



ID



Bio



R model



1248 / 1580

## Features

- High RPM Centrifuges for 2.0 mL up to 85 mL tubes; (2.0 up to 250 mL for 1580R)
- Fast cool function, Pre-cooling to 4°C for temperature-sensitive samples. (R models)
- Bio-Safe buckets ensure safe centrifugation of hazardous samples.
- Intuitive touch control pad with numeric input for easy setting and editing of run parameters.
- 1248 / 1248R / 1236R (Air ventilated/ Refrigerated / Floor standing, refrigerated) models for 48 x bloodtubes, 36 x 15 mL, and 12 x 50 mL tube capacity.
- 1580 / 1580R (Air ventilated / Refrigerated) models for 80 x bloodtubes, 64 x 15 mL, and 20 x 50 mL tube capacity.

## Technical Specifications

	1248	1248R Floor standing model 1236R	1580	1580R
<b>Max. RPM/PCF for Fixed Angle</b>	12,000 rpm / 16,582 xg	12,000 rpm / 16,582 xg	15,000 rpm / 24,249 xg	15,000 rpm / 25,910 xg
<b>Max. RPM/PCF for Swing-out</b>	5,000 rpm / 5,394 xg	5,000 rpm / 5,394 xg	5,000 rpm / 5,394 xg	5,000 rpm / 5,394 xg
<b>Max. Capacity for Fixed Angle</b>	6 x 85 mL, 30 x 1.5/2.0 mL	6 x 85 mL, 30 x 1.5/2.0 mL	6 x 85 mL, 30 x 1.5/2.0 mL	6 x (250 & 15) mL, 30 x 1.5/2.0 mL
<b>Max. Capacity for Swing-out</b>	4 x 250 mL, 48 x 15 mL, 4 x 4 MTPs	4 x 250 mL, 48 x 15 mL, 4 x 4 MTPs	4 x 750 mL, 80 x 15 mL, 4 x 4 MTPs	4 x 750 mL, 80 x 15 mL, 4 x 4 MTPs
<b>Temp. Range (°C)</b>	-	-20°C to 40°C	-	-20°C to 40°C
<b>Fast Cool Button</b>	-	Yes	-	Yes
<b>Time Control</b>	Pulse, timed <100 min or continuous	Pulse, timed <10 min or continuous	Pulse, timed <100 min or continuous	Pulse, timed <10 hr or continuous
<b>Time Counting Range</b>	Selectable, at set speed or from starting			
<b>RCF/RPM Conversion</b>	Yes			
<b>Noise Level (dependent on rotor)</b>	≤60 dB			
<b>ACC/DEC Ramps</b>	9/10			
<b>Program Memory</b>	100			
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)			
<b>Power Requirement</b>	900 VA	2.5 kVA	1.5 kVA	2.5 kVA
<b>Dimension (W x D x H)</b>	475 x 561 x 330 mm	655 x 620 x 357 mm	540 x 650 x 380 mm	770 x 650 x 390 mm
<b>Net Weight</b>	40 kg	78 kg	57 kg	93 kg
<b>CE MARK</b>	Yes			
<b>Cat No.</b>	GZ-1248	GZ-1248R	GZ-1580	GZ-1580R

## Fixed Angle Rotor, GRF-G-250-6

- Capacity : 6 x 250 mL + 6 x 15 mL
- Max. RPM : 8,000
- Max. RCF : 9,588 xg
- Only for 1580R



Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
100	6	8,586	GAS-100(250)
85	6	8,443	GAS-85(250)
50 conical (Skirt)	6	8,622	GAS-sc50(250)
50 conical	6	8,193	GAS-c50(250)
50	12	8,264	GAM-50-2(250)
30	18	9,159	GAM-30-3(250)
25 conical	6	8,228	GAS-c25(250)
15 conical	24	9,051	GAM-c15-4 (250)
15	24	9,230	GAM-15-4(250)
Φ16 x 100 mm VT	42	9,373	GAM-10-7(250)
Φ13 x 75 ~ 100 mm VT	48	9,373	GAM-7-8(250)
5	16	9,051	GAM-c5-4(250)
1.5 / 2.0	54	9,230	GAM-m2.0-9(250)

## Fixed Angle Rotor, GRF-G-85-6

- Capacity : 6 x 85 mL
- 1248 / 1248R / 1236R / 1580 : Max. RPM / RCF : 10,000 / 12,298 xg
- 1580R : Max. RPM / RCF : 12,000 / 17,709 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 1236R / 1580	1580R	
50 conical	11,404	16,421	GAS-c50(85)
50	11,627	16,743	GAS-50(85)
30	11,460	16,502	GAS-30(85)
25 conical	9,727	14,006	GAS-c25(85)
15 conical	11,292	16,260	GAS-c15(85)
15	11,515	16,582	GAS-15(85)

## Fixed Angle Rotor, GRF-G-50-8

- Capacity : 8 x 50 mL
- 1248 / 1248R / 1236R / 1580 : Max. RPM / RCF : 12,000 / 16,582 xg
- 1580R : Max. RPM / RCF : 15,000 / 25,910 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 1236R / 1580	1580R	
30	15,520	24,249	GAS-30(50)
25 conical	13,040	20,376	GAS-c25(50)
15 conical	15,455	24,149	GAS-c15(50)
15	15,053	23,520	GAS-15(50)

## Fixed Angle Rotor, GRF-G-c50-8

- **Capacity : 8 x 50 mL Conical**
- 1248 / 1248R / 1236R / 1580 : Max. RPM / RCF : 10,000 / 12,298 xg
- 1580R : Max. RPM / RCF : 13,000 / 20,784 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 1236R / 1580	1580R	
50	11,996	20,273	GAS-50(c50)
30	11,896	20,103	GAS-30(c50)
25 conical	10,520	17,779	GAS-c25(c50)
15 conical	11,761	19,877	GAS-c15(c50)

## Fixed Angle Rotor, GRF-G-c15-12

- **Capacity : 12 x 15 mL Conical**
- 1248 / 1248R / 1236R / 1580 : Max. RPM / RCF : 12,000 / 16,582 xg
- 1580R : Max. RPM / RCF : 15,000 / 25,910 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 1236R / 1580	1580R	
5	12,203	19,067	GAS-c5(c15)

## Fixed Angle Rotor, GRF-G-m2.0-30

- **Capacity : 30 x 1.5/2.0 mL**
- 1248 / 1248R / 1236R : Max. RPM / RCF : 12,000 / 15,520 xg
- 1580 / 1580R : Max. RPM / RCF : 15,000 / 24,249 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 1236R	1580 / 1580R	
0.5	13,835	21,633	GAS-m0.5(2)
0.2	12,718	19,872	GAS-m0.2(2)

## Fixed Angle Rotor, GRA-G-15-24

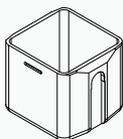
- **Capacity : 24 x 15 mL**
- Max. RPM : 4,000
- Max. RCF : 3,134 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
14	2,882	GAS-14(f15)
5	2,503	GAS-c5(f15)
Φ13 x 100 mm VT	2,990	GAS-5(f15)
Φ13 x 75 mm VT	2,776	GAS-3(f15)

## Swing Rotor, GRS-G-r750-4

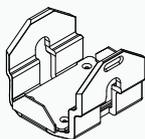
- Capacity : 4 Buckets
- Max. RPM : 3,600
- Max. RCF : 2,898 xg
- Only for 1580 / 1580R



750 mL Rectangular Bucket  
**GLB-r750-r750**

**Max. RPM : 3,600**  
**Max. RCF : 2,898 xg**  
**Hole bottom type : Flat**

Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
500	4	2,847	GAS-500(r750)
500 conical	4	2,883	GAS-c500(r750)
250 conical	4	2,883	GAS-c250(r750)
250	4	2,840	GAS-250(r750)
50 conical	20	3,869	GAM-c50-5(r750)
25 conical	20	2,869	GAM-c50-5(r750)
50	32	2,854	GAM-50-8(r750)
15 conical	64	2,869	GAM-c15-16(r750)
5	64	2,869	GAM-c15-16(r750)
15	80	2,854	GAM-15-20(r750)
Φ16 x 100 mm VT	80	2,854	GAM-15-20(r750)
14	32	2,854	GAM-15-20(r750)
Φ13 x 100 mm VT	120	2,854	GAM-5-30(r750)
Φ13 x 75 mm VT	120	2,854	GAM-5-30(r750)



Microplate Holder Bucket  
**GLP-mw-r750**

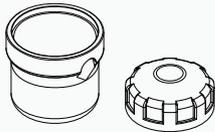
**Max. capacity per rotor: 16 x MTP / 4 x DWP**  
**Max. Load : 330g**  
**Max. RPM : 3,000**  
**Max. RCF : 1,726 xg**

## Swing Rotor, GRS-G-750-4

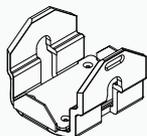
- Capacity : 4 Buckets
- Max. RPM : 4,000
- Max. RCF : 3,667 xg
- Only for 1580 / 1580R


**Bio-Safe**

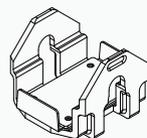
Manufacturer Validated

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p>750 mL Bio-Safe Round Bucket <b>GLBB-b750-750</b></p> <p>Max. RPM : 4,000 Max. RCF : 3,667 xg Hole bottom type : Flat</p>	750 *	4	3,667	-
	500 *	4	3,604	GAS-500(750)
	500 conical *	4	3,667	GAS-c500(750)
	250 conical *	4	3,667	GAS-c250(750)
	250	4	3,595	GAS-250(750)
	50 conical	20	3,667	GAM-c50-5(750)
	50	28	3,595	GAM-50-7(750)
	15 conical	56	3,667	GAM-c15-14(750)
	5	40	3,667	GAM-c15-14(750)
	15	76	3,595	GAM-15-19(750)
	14	28	3,595	GAM-15-19(750)
	Φ16 x 100 mm VT	84	3,595	GAM-10-21(750)
	Φ13 x 100 mm VT	96	3,595	GAM-5-24(750)
Φ13 x 75 mm VT	96	3,595	GAM-5-24(750)	

\* Cannot use cap sealing


 Microplate Holder Bucket  
**GLP-mw-750**

Max. capacity per rotor: 16 x MTP / 4 x DWP  
Max. Load : 330g  
Max. RPM : 3,000  
Max. RCF : 1,726 xg

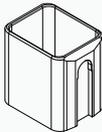

 Microplate Holder Bucket  
**GLP-mw-750D**

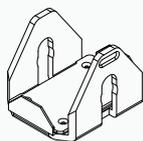
Max. capacity per rotor: 16 x MTP / 4 x DWP  
Max. Load : 330g  
Max. RPM : 4,000  
Max. RCF : 3,068 xg

## Swing Rotor, GRS-G-r250-4

- Capacity : 4 Buckets
- Max. RPM : 4,000
- Max. RCF : 3,134 xg



	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>250 mL Rectangular Bucket</b> <b>GLB-r250-r250</b></p> <p><b>Max. RPM : 4,000</b> <b>Max. RCF : 3,134 xg</b> <b>Hole bottom type : Flat</b></p>	250	4	3,080	GAS-250(r250)
	85 + 15	8+8	3,071	GAM-85-2(r250)
	50 conical (Skirt)	16	3,145	GAM-sc50-4(r250)
	50 conical	12	3,107	GAM-c50-3(r250)
	25 conical	12	3,107	GAM-c50-3(r250)
	50	16	3,095	GAM-50-4(r250)
	15 conical	36	3,107	GAM-c15-9(r250)
	15	48	3,095	GAM-15-12(r250)
	Φ16 x 100 mm VT	48	3,095	GAM-15-12(r250)
	14	24	3,095	GAM-15-12(r250)
	Φ13 x 100 mm VT	48	3,095	GAM-5-12(r250)
Φ13 x 75 mm VT	48	3,095	GAM-5-12(r250)	
1.5 / 2.0	80	3,045	GAM-m2.0-20(r250)	



**Microplate Holder Bucket**  
**GLP-mw-r250**

**Max. capacity per rotor: 16 x MTP / 4 x DWP**  
**Max. RPM : 4,000**  
**Max. RCF : 2,737 xg**  
**Hole bottom type : Plate**

## Swing Rotor, GRS-G-250-4

- Capacity : 4 Buckets
- Max. RPM : 5,000
- Max. RCF : 5,394 xg



	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>250 mL Round Bucket</b> <b>GLB-250-250</b></p> <p><b>Max. RPM : 5,000</b> <b>Max. RCF : 5,394 xg</b> <b>Hole bottom type : Flat</b></p>	250	4	5,394	-
	250 conical	4	5,352	GAS-c250(250)
	100	4	5,255	GAS-100(250)
	85	4	5,255	GAS-85(250)
	50 conical (Skirted)	4	5,255	GAS-sc50(250)
	50 conical	4	5,394	GAS-c50(250)
	50	8	5,255	GAM-50-2(250)
	30	12	5,255	GAM-30-3(250)
	25 conical	4	5,394	GAS-c25(250)
	15 conical	16	5,338	GAM-c15-4 (250)
	15	16	5,311	GAM-15-4(250)
	Φ16 x 100 mm VT	16	5,311	GAM-10-7(250)
	Φ13 x 75 ~ 100 mm VT	32	5,311	GAM-7-8(250)
	5	16	5,338	GAM-c5-4(250)
	1.5 / 2.0	36	5,311	GAM-m2.0-9(250)

## Swing Rotor, GRS-G-100-6

- Capacity : 6 Buckets
- Max. RPM : 4,000
- Max. RCF : 3,105 xg



**Bio-Safe** Porton Down Certified

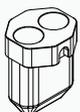


100 mL Bucket  
**GLBB-b100-100**

Max. RPM : 4,000  
Max. RCF : 3,105 xg  
Hole bottom type : Flat

Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
100 *	6	3,016	GAS-100(b100)
85	6	3,079	GAS-85(b100)
50 conical (Skirt)	6	2,737	GAS-sc50(b100)
50 conical	6	2,737	GAS-c50(b100)
50	6	2,737	GAS-50(b100)
30	6	3,079	GAS-30(b100)
25 conical	6	3,079	GAS-c25(b100)
15 conical *	18	3,105	GAM-c15-3(100)
15 conical	6	3,105	GAS-c15(b100)
15 *	18	3,052	GAM-15-3(100)
Φ16 x 100 mm VT	30	3,016	GAM-10-5(b100)
Φ13 x 75~100 mm VT	30	3,016	GAM-7-5(b100)
5	18	2,300	GAM-c5-3(b100)
1.5 / 2.0	36	3,016	GAM-m2.0-6(b100)

\* Cannot use cap sealing

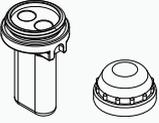


Dual 50 mL Conical Buckt  
**GLB-dc50-100**

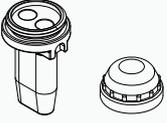
Max. RPM : 4,000  
Max. RCF : 3,105 xg  
Hole bottom type : Conical

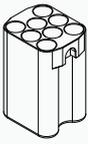
Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
50 conical	12	3,105	-
50	12	2,919	GAS-50(c50)
30	12	2,923	GAS-30(c50)
25 conical	12	2,433	GAS-c25(c50)
15 conical	12	3,105	GAS-c15(c50)

**Bio-Safe** Manufacturer Validated

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>Dual 15 mL Bucket</b> <b>GLBB-bd15-100</b></p> <p>Max. RPM : 4,000 Max. RCF : 3,032 xg Hole bottom type : Round</p>	15 open top	12	3,032	-

**Bio-Safe** Porton Down Certified

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>Dual 15 mL Conical Bucket</b> <b>GLBB-bdc15-100</b></p> <p>Max. RPM : 4,000 Max. RCF : 3,105 xg Hole bottom type : Conical</p>	15 conical	12	3,105	-
	14	12	2,799	GAS-14(c15)
	5	12	2,156	GAS-c5(c15)

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>8 x Vacuum tube Bucket</b> <b>GLB-15-8-100</b></p> <p>Max. RPM : 4,000 Max. RCF : 3,059 xg Hole bottom type : Flat</p>	15	12	3,059	-
	15 open top	48	3,059	-
	Φ16 x 100 mm VT	48	3,059	-
	14	24	2,853	GAS-14(f15)
	5	24	2,343	GAS-c5(f15)
	Φ13 x 100 mm VT	48	3,059	GAS-5(f15)
	Φ13 x 75 mm VT	48	2,576	GAS-3(f15)

# 1696R II Multi Purpose, High-speed Centrifuge



## Features

- High RPM Centrifuges for 2.0 mL up to 250 mL tubes.
- Fast cool function, Pre-cooling to 4°C for temperature-sensitive samples.
- Bio-Safe buckets ensure safe centrifugation of hazardous samples.
- Direct fastening from rotor lid to the motor removes the necessity of tools. (Fixed angle only)
- Highly visible display screen and numeric keys with integrated soft touch buttons for easy maintenance and quick setting.
- High throughput operation with 152 x bloodtubes, 116 x 15 mL, and 52 x 50 mL tube capacity.

## Technical Specifications

<b>Max. RPM/PCF for Fixed Angle</b>	16,000 rpm / 27,991 xg	<b>RCF/RPM Conversion</b>	Yes
<b>Max. RPM/PCF for Swing-out</b>	5,000 rpm / 5,394 xg	<b>ACC/DEC Ramps</b>	9/10
<b>Max. Capacity for Fixed Angle</b>	6 x 250 mL, 24 x 15 mL, 48 x 1.5/2.0 mL, 20 x 5.0 mL	<b>Program Memory</b>	100, 3 easy program save / call
<b>Max. Capacity for Swing-out</b>	4 x 1,000 mL, 4 x 2 x 250 mL, 4 x 29 x 15 mL	<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Temp. Range (°C)</b>	-11°C to 40°C	<b>Power Requirement</b>	2.0 kVA
<b>Fast Cool Button</b>	Yes	<b>Dimension (W x D x H)</b>	775 x 695 x 395 mm
<b>Time Control</b>	Pulse, timed <10 hr or continuous	<b>Net Weight</b>	132 kg
<b>Time Counting Range</b>	Selectable, at set speed or from starting	<b>CE MARK</b>	Yes
<b>Noise Level (dependent on rotor)</b>	≤60 dB (GRS-B-750-4 : ≤70 dB)	<b>Cat No.</b>	GZ-1696R II

## Fixed Angle Rotor, GRF-B-250-6

- Capacity : 6 x 250 mL + 6 x 15 mL
- Max. RPM : 8,000
- Max. RCF : 9,588 xg



Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
100	6	8,586	GAS-100(250)
85	6	8,443	GAS-85(250)
50 conical(Skirt)	6	8,622	GAS-sc50(250)
50 conical	6	8,193	GAS-c50(250)
50	12	8,264	GAM-50-2(250)
30	18	9,159	GAM-30-3(250)
25 conical	6	8,228	GAS-c25(250)
15 conical	24	9,051	GAM-c15-4 (250)
15	24	9,230	GAM-15-4(250)
Φ16 x 100 mm VT	42	9,373	GAM-10-7(250)
Φ13 x 75~100 mm VT	48	9,373	GAM-7-8(250)
5	16	9,051	GAM-c5-4(250)
1.5 / 2.0	54	9,230	GAM-m2.0-9(250)

## Fixed Angle Rotor, GRF-B-85-6

- Capacity : 6 x 85 mL
- Max. RPM : 12,000
- Max. RCF : 16,019 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
50 conical	14,731	GAS-c50(85)
50	15,053	GAS-50(85)
30	14,843	GAS-30(85)
25 conical	13,024	GAS-c25(85)
15 conical	14,570	GAS-c15(85)
15	14,843	GAS-15(85)

## Fixed Angle Rotor, GRF-B-50-8

- Capacity : 8 x 50 mL
- Max. RPM : 15,000
- Max. RCF : 25,910 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
30	24,275	GAS-30(50)
25 conical	20,376	GAS-c25(50)
15 conical	24,149	GAS-c15(50)
15	23,520	GAS-15(50)

## Fixed Angle Rotor, GRF-B-c50-8

- **Capacity : 8 x 50 mL Conical**
- Max. RPM : 13,000
- Max. RCF : 20,784 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
50	20,273	GAS-50(c50)
30	20,103	GAS-30(c50)
25 conical	17,779	GAS-c25(c50)
15 conical	19,877	GAS-c15(c50)

## Fixed Angle Rotor, GRF-B-c15-12

- **Capacity : 12 x 15 mL Conical**
- Max. RPM : 15,000
- Max. RCF : 25,910 xg



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
5	19,067	GAS-c5(c15)

## Fixed Angle Rotor, GRF-B-m5.0-20

- **Capacity : 20 x 5.0 mL**
- Max. RPM : 13,500
- Max. RCF : 22,209 xg



## Fixed Angle Rotor, GRF-B-m2.0-48

- **Capacity : 48 x 1.5/2.0 mL**
- Max. RPM : 16,000
- Max. RCF : 27,991 xg



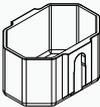
Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
0.5	25,043	GAS-m0.5(2)
0.2	23,040	GAS-m0.2(2)

## Swing Rotor, GRS-B-1000-4

### - Capacity : 4 Buckets

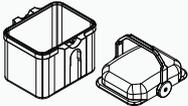
- Max. RPM : 3,700
- Max. RCF : 3,337 xg



 1,000 mL High-capacity Bucket <b>GLB-h1000-1000</b>  Max. RPM : 3,700 Max. RCF : 3,092 xg Hole bottom type : Flat	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
	250	8	3,030	GAM-250-2(h1000)
	50 conical	52	3,069	GAM-c50-13(h1000)
	50	52	2,985	GAM-50-13(h1000)
	15 conical	116	3,076	GAM-c15-29(h1000)
	15	116	2,908	GAM-15-29(h1000)
	14	72	2,916	GAM-10-38(h1000)
	Φ16 x 100 mm VT	152	2,916	GAM-10-38(h1000)
	Φ13 x 100 mm VT	192	2,916	GAM-5-48(h1000)
	Φ13 x 75 mm VT	192	2,916	GAM-5-48(h1000)

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 1,000 mL Click-Seal Rectangular Bucket <b>GLBB-br1000-1000</b>  Max. RPM : 3,700 Max. RCF : 3,107 xg Hole bottom type : Flat	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
	MTP / DWP	24 / 4	3,030	GLP-mw-r1000
	50	40	3,061	GAM-50-10(br1000)
	50 conical	32	3,084	GAM-c50-8(br1000)
	25 conical	32	3,084	GAM-c50-8(br1000)
	15 conical	72	3,084	GAM-c15-18(br1000)
	5	72	3,084	GAM-c15-18(br1000)
	15	80	3,076	GAM-15-20(br1000)
	Φ16 x 100 mm VT	140	3,030	GAM-10-35(br1000)
	Φ13 x 100 mm VT	160	2,992	GAM-5-40(br1000)
Φ13 x 75 mm VT	160	2,992	GAM-5-40(br1000)	

### Bio-Safe

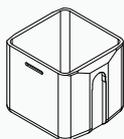
Porton Down Certified

 1,000 mL Click-Seal Round Bucket <b>GLBB-b1000-1000</b>  Max. RPM : 3,700 Max. RCF : 3,337 xg Hole bottom type : Flat	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
	1,000 *	4	3,337	-
	750	4	3,337	-
	500	4	3,283	GAS-500(750)
	500 conical	4	3,321	GAS-c500(750)
	250 conical	4	3,291	GAS-c250(750)
	250	4	3,275	GAS-250(750)
	50 conical	20	3,306	GAM-c50-5(750)
	50	28	3,275	GAM-50-7(750)
	15 conical	56	3,306	GAM-c15-14(750)
	5	40	3,306	GAM-c15-14(750)
	15	76	3,275	GAM-15-19(750)
	14	28	3,275	GAM-15-19(750)
	Φ16 x 100 mm VT	84	3,275	GAM-10-21(750)
	Φ13 x 100 mm VT	96	3,275	GAM-5-24(750)
	Φ13 x 75 mm VT	96	3,275	GAM-5-24(750)

\* Cannot use cap sealing

## Swing Rotor, GRS-B-r750-4

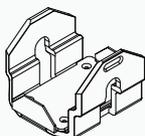
- Capacity : 4 Buckets
- Max. RPM : 3,600
- Max. RCF : 2,898 xg



750 mL Rectangular Bucket  
**GLB-r750-r750**

**Max. RPM : 3,600**  
**Max. RCF : 2,898 xg**  
**Hole bottom type : Flat**

Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
500	4	2,847	GAS-500(r750)
500 conical	4	2,883	GAS-c500(r750)
250 conical	4	2,883	GAS-c250(r750)
250	4	2,840	GAS-250(r750)
50 conical	20	3,869	GAM-c50-5(r750)
25 conical	20	2,869	GAM-c50-5(r750)
50	32	2,854	GAM-50-8(r750)
15 conical	64	2,869	GAM-c15-16(r750)
5	64	2,869	GAM-c15-16(r750)
15	80	2,854	GAM-15-20(r750)
Φ16 x 100 mm VT	80	2,854	GAM-15-20(r750)
14	32	2,854	GAM-15-20(r750)
Φ13 x 100 mm VT	120	2,854	GAM-5-30(r750)
Φ13 x 75 mm VT	120	2,854	GAM-5-30(r750)



Microplate Holder Bucket  
**GLP-mw-r750**

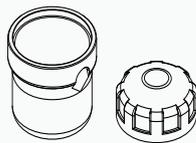
**Max. capacity per rotor: 16 x MTP / 4 x DWP**  
**Max. Load : 330g**  
**Max. RPM : 3,000**  
**Max. RCF : 1,726 xg**

## Swing Rotor, GRS-B-750-4

- Capacity : 4 Buckets
- Max. RPM : 4,600
- Max. RCF : 4,850 xg


**Bio-Safe**

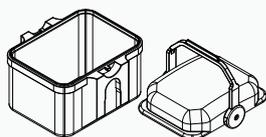
Manufacturer Validated

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p>750 mL Click-Seal Round Bucket <b>GLBB-b750-750B</b></p> <p>Max. RPM : 4,600 Max. RCF : 4,850 xg Hole bottom type : Flat</p>	750 *	4	4,850	-
	500 *	4	4,767	GAS-500(750)
	500 conical *	4	4,826	GAS-c500(750)
	250 conical *	4	4,779	GAS-c250(750)
	250	4	4,755	GAS-250(750)
	50 conical	20	4,805	GAM-c50-5(750)
	50	28	4,755	GAM-50-7(750)
	15 conical	56	4,802	GAM-c15-14(750)
	5	40	4,802	GAM-c15-14(750)
	15	76	4,755	GAM-15-19(750)
	14	28	4,755	GAM-15-19(750)
	Φ16 x 100 mm VT	84	4,755	GAM-10-21(750)
	Φ13 x 100 mm VT	96	4,755	GAM-5-24(750)
Φ13 x 75 mm VT	96	4,755	GAM-5-24(750)	

\* Cannot use cap sealing

**Bio-Safe**

Manufacturer Validated



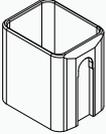
Microplate Click-Seal Bucket  
**GLBB-mw-750B**

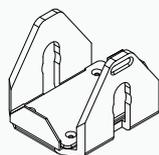
Max. capacity per rotor: 16 x MTP / 4 x DWP  
Max. RPM : 4,600  
Max. RCF : 4,033 xg

## Swing Rotor, GRS-B-r250-4

- Capacity : 4 Buckets
- Max. RPM : 4,000
- Max. RCF : 3,134 xg



	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>250 mL Rectangular Bucket</b> <b>GLB-r250-r250</b></p> <p>Max. RPM : 4,000 Max. RCF : 3,134 xg Hole bottom type : Flat</p>	250	4	3,080	GAS-250(r250)
	85 + 15	8	3,071	GAM-85-2(r250)
	50 conical (Skirt)	16	3,145	GAM-sc50(r250)
	50 conical	12	3,107	GAM-c50-3(r250)
	25 conical	12	3,107	GAM-c50-3(r250)
	50	16	3,095	GAM-50-4(r250)
	15 conical	36	3,107	GAM-c15-9(r250)
	15	48	3,095	GAM-15-12(r250)
	Φ16 x 100 mm VT	48	3,095	GAM-15-12(r250)
	14	24	3,095	GAM-15-12(r250)
	Φ13 x 100 mm VT	48	3,095	GAM-5-12(r250)
	Φ13 x 75 mm VT	48	3,095	GAM-5-12(r250)
	1.5 / 2.0	80	3,045	GAM-m2.0-20(r250)



**Microplate Holder Bucket**  
**GLP-mw-r250**

Max. capacity per rotor: 16 x MTP / 4 x DWP  
Max. RPM : 4,000  
Max. RCF : 2,737 xg

## Swing Rotor, GRS-B-250-4

### - Capacity : 4 Buckets

- Max. RPM : 5,000
- Max. RCF : 5,394 xg



250 mL Round Bucket  
**GLB-250-250**

Max. RPM : 5,000  
Max. RCF : 5,394 xg  
Hole bottom type : Flat

Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
250	4	5,394	-
250 conical	4	5,352	GAS-c250(250)
100	4	5,255	GAS-100(250)
85	4	5,255	GAS-85(250)
50 conical (Skirted)	4	5,255	GAS-sc50(250)
50 conical	4	5,394	GAS-c50(250)
50	8	5,255	GAM-50-2(250)
30	12	5,255	GAM-30-3(250)
25 conical	4	5,394	GAS-c25(250)
15 conical	16	5,338	GAM-c15-4 (250)
15	16	5,311	GAM-15-4(250)
Φ16 x 100 mm VT	16	5,311	GAM-10-7(250)
Φ13 x 75 ~ 100 mm VT	32	5,311	GAM-7-8(250)
5	16	5,338	GAM-c5-4(250)
1.5 / 2.0	36	5,311	GAM-m2.0-9(250)

## Swing Rotor, GRS-B-100-6

- Capacity : 6 Buckets
- Max. RPM : 4,200
- Max. RCF : 3,424 xg


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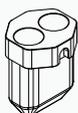


100 mL Bucket  
GLBB-b100-100

Max. RPM : 4,200  
Max. RCF : 3,424 xg  
Hole bottom type : Flat

Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
100 *	6	3,325	GAS-100(b100)
85	6	3,384	GAS-85(b100)
50 conical (Skirt)	6	3,364	GAS-sc50(b100)
50 conical	6	3,364	GAS-c50(b100)
50	6	3,384	GAS-50(b100)
30	6	3,384	GAS-30(b100)
25 conical	6	3,384	GAS-c25(b100)
15 conical *	18	3,424	GAM-c15-3(100)
15 conical	6	3,424	GAS-c15(b100)
15 *	18	3,364	GAM-15-3(100)
Φ16 x 100 mm VT	30	3,325	GAM-10-5(b100)
Φ13 x 75 ~ 100 mm VT	30	3,325	GAM-7-5(b100)
5	18	2,536	GAM-c5-3(b100)
1.5 / 2.0	36	3,325	GAM-m2.0-6(b100)

\* Cannot use cap sealing



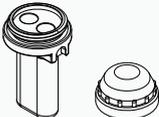
Dual 50 mL Conical Buckt  
GLB-dc50-100

Max. RPM : 4,200  
Max. RCF : 3,424 xg  
Hole bottom type : Conical

Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
50 conical	12	3,424	-
50	12	3,219	GAS-50(c50)
30	12	3,222	GAS-30(c50)
25 conical	12	2,702	GAS-c25(c50)
15 conical	12	3,424	GAS-c15(c50)

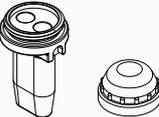
**Bio-Safe**

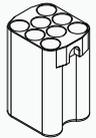
Manufacturer Validated

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>Dual 15 mL Bucket</b> <b>GLBB-bd15-100</b></p> <p>Max. RPM : 4,200 Max. RCF : 3,343 xg Hole bottom type : Round</p>	15 open top	12	3,343	-

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	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>Dual 15 mL Conical Bucket</b> <b>GLBB-bdc15-100</b></p> <p>Max. RPM : 4,200 Max. RCF : 3,424 xg Hole bottom type : Conical</p>	15 conical	12	3,424	-
	14	12	2,958	GAS-14(c15)
	5	12	2,290	GAS-c5(c15)

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p><b>Vacuum tube Bucket</b> <b>GLB-15-8-100</b></p> <p>Max. RPM : 4,200 Max. RCF : 3,372 xg Hole bottom type : Flat</p>	15	12	3,372	-
	15 open top	48	3,372	-
	Φ16 x 100 mm VT	48	3,372	-
	14	24	3,146	GAS-14(f15)
	5	24	2,584	GAS-c5(f15)
	Φ13 x 100 mm VT	48	3,372	GAS-5(f15)
	Φ13 x 75 mm VT	48	2,840	GAS-3(f15)

# Floor Standing, High-speed Centrifuges



**1736R**

<b>Max. capacity</b>		6 x 500 mL
<b>Max. RPM</b>		17,000 rpm
<b>Max. RCF</b>		32,310 xg
High speed / Fixed angle rotor (Max. Capacity)	<b>1.5/2.0 mL Microtubes</b>	31,147
	<b>5 mL Microtubes</b>	19,067
	<b>15 mL conical tubes</b>	25,910
	<b>50 mL conical tubes</b>	27,671
	<b>15 mL round tubes</b>	23,520
	<b>50 mL round tubes</b>	32,310
	<b>85 mL round tubes</b>	25,029
	<b>250 mL flat bottles</b>	14,981
	<b>500 mL flat bottles</b>	11,305
	<b>1 L flat bottles</b>	-
Low speed / Swing out rotor (Max. Capacity per run)	<b>Φ 13 mm blood vacuum tubes</b>	48
	<b>Φ 16 mm blood vacuum tubes</b>	48
	<b>15 mL conical tubes</b>	36
	<b>50 mL conical tubes</b>	12
	<b>PCR plates/MTP</b>	16
	<b>Deepwell plates (DWP)</b>	8



**2236R**

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6 x 1,000 mL

22,000 rpm

54,111 x g

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52,163

33,898

46,062

35,541

41,813

54,111

44,496

25,318

17,664

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12,071

48

48

36

12

16

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8

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# 1736R, 2236R

Floor Standing, High-speed Centrifuges



(2236R)

## Features

- Optimized for fast harvesting in bioprocessing and industrial applications with high volume processing up to 6/ 3 liters.
- High RCF centrifugation of 54,111 / 32,310 xg (2236R / 1736R) widely used for viral and exosome research
- Fast cool function, Pre-cooling to 4°C for temperature-sensitive samples.
- Instrument lock/unlock by password control and protocol management by user ID is ideal for core lab facility or multi-user environment. (2236R only)
- 7" LCD Touch Screen with simultaneous display of all the parameters of set and actual values. (2236R only)
- Multi step run up to 5 combined protocols for complicated experiments. (2236R only)

## Technical Specifications

	1736R	2236R
<b>Max. RPM/PCF for Fixed Angle</b>	17,000 rpm / 32,310 xg	22,000 rpm / 54,111 xg
<b>Max. RPM/PCF for Swing-out</b>	5,000 rpm / 5,394 xg	5,000 rpm / 5,394 xg
<b>Max. Capacity for Fixed Angle</b>	6 x 500 mL, 30 x 1.5/2.0 mL	6 x 1,000 mL, 30 x 1.5/2.0 mL
<b>Max. Capacity for Swing-out</b>	4 x 250 mL, 4 x 12 x 15 mL, 4 x 4 MTPs	4 x 250 mL, 4 x 12 x 15 mL, 4 x 4 MTPs
<b>Temp. range (°C)</b>	-20°C to 40°C	-20°C to 40°C
<b>FAST cool button</b>	Yes	Yes
<b>Time control</b>	Pulse, timed <10 hr or continuous	Pulse, timed <100 hr or continuous
<b>Time counting range</b>	Selectable, at set speed or from starting	Selectable, at set speed or from starting
<b>Noise level (dependent on rotor)</b>	≤56 dB	≤56 dB
<b>RCF/RPM conversion</b>	Yes	Yes
<b>ACC/DEC Ramps</b>	9/10	9/10
<b>Program Memory</b>	100	100
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Power Requirement</b>	2.5 kVA	2.5 kVA
<b>Dimension (W x D x H)</b>	473 x 620 x 830 mm	824 x 634 x 1,049 mm
<b>Net Weight</b>	110 kg	240 kg
<b>CE MARK</b>	Yes	Yes
<b>Cat No.</b>	GZ-1736R	GZ-2236R

## Fixed Angle Rotor, GRF-L-1000-6

- **Capacity : 6 x 1,000 mL**
- Max. RPM : 7,000
- Max. RCF : 10,825 xg
- Only for 2236R



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
500	10,047	GAS-500(1000)
250	8,990	GAS-250(1000)

## Fixed Angle Rotor, GRF-L-1000-4

- **Capacity : 4 x 1,000 mL**
- Max. RPM : 8,000
- Max. RCF : 12,071 xg
- Only for 2236R



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
500	11,055	GAS-500(1000)
250	9,674	GAS-250(1000)

## Fixed Angle Rotor, GRF-L-500-6

- **Capacity : 6 x 500 mL**
- 1736R Max. RPM / RCF : 8,000 / 11,305 xg
- 2236R Max. RPM / RCF : 10,000 / 17,664 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1736R	2236R	
250	9,869	15,462	GAS-250(500)

## Fixed Angle Rotor, GRF-L-250-6

### - Capacity : 6 x 250 mL

- 1736R Max. RPM / RCF : 10,000 / 14,981 xg

- 2236R Max. RPM / RCF : 13,000 / 25,318 xg



Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
		1736R	2236R	
100	6	13,416	22,673	GAS-100(250)
85	6	13,192	22,295	GAS-85(250)
50 conical (Skirt)	6	13,472	22,768	GAS-sc50(250)
50 conical	6	12,801	21,634	GAS-c50(250)
50	12	12,913	21,823	GAM-50-2(250)
30	18	14,310	24,185	GAM-30-3(250)
25 conical	6	12,857	21,728	GAS-c25(250)
15 conical	24	14,143	23,901	GAM-c15-4 (250)
15	24	14,422	24,374	GAM-15-4(250)
Φ16 x 100 mm VT	42	14,646	24,751	GAM-10-7(250)
Φ13 x 75 ~ 100 mm VT	48	14,646	24,751	GAM-7-8(250)
5	16	14,143	23,901	GAM-c5-4(250)
1.5 / 2.0	54	14,422	24,374	GAM-m2.0-9(250)

## Fixed Angle Rotor, GRF-L-85-6

### - Capacity : 6 x 85 mL

- 1736R Max. RPM / RCF : 15,000 / 25,029 xg

- 2236R Max. RPM / RCF : 20,000 / 44,496 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1736R	2236R	
50 conical	23,017	40,919	GAS-c50(85)
50	23,520	41,813	GAS-50(85)
30	23,193	41,232	GAS-30(85)
25 conical	20,350	36,178	GAS-c25(85)
15 conical	22,765	40,472	GAS-c15(85)
15	23,268	41,366	GAS-15(85)

## Fixed Angle Rotor, GRF-L-50-8

### - Capacity : 8 x 50 mL

- 1736R Max. RPM / RCF : 15,000 / 25,910 xg

- 2236R Max. RPM / RCF : 20,000 / 46,062 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1736R	2236R	
30	24,275	43,155	GAS-30(50)
25 conical	20,376	36,223	GAS-c25(50)
15 conical	24,149	42,931	GAS-c15(50)
15	23,520	41,813	GAS-15(50)

## Fixed Angle Rotor, GRF-L-50-6

**- Capacity : 6 x 50 mL**

- 1736R Max. RPM / RCF : 17,000 / 32,310 xg
- 2236R Max. RPM / RCF : 22,000 / 54,111 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1736R	2236R	
30	31,244	52,326	GAS-30(50)

## Fixed Angle Rotor, GRF-L-c50-8

**- Capacity : 6 x 50 mL**

- 1736R Max. RPM / RCF : 15,000 / 27,671 xg
- 2236R Max. RPM / RCF : 17,000 / 35,541 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1736R	2236R	
50	26,991	34,669	GAS-30(c50)
30	26,765	34,378	GAS-c25(c50)
25 conical	23,671	30,404	GAS-c15(c50)
15 conical	26,463	33,990	GAS-15(c50)

## Fixed Angle Rotor, GRF-L-c15-12

**- Capacity : 12 x 15 mL Conical**

- 1736R Max. RPM / RCF : 15,000 / 25,910 xg
- 2236R Max. RPM / RCF : 20,000 / 46,062 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1736R	2236R	
5	19,067	33,898	GAS-c5(c15)

## Fixed Angle Rotor, GRF-L-m2.0-30

**- Capacity : 30 x 1.5 / 2.0 mL**

- 1736R Max. RPM / RCF : 17,000 / 31,147 xg
- 2236R Max. RPM / RCF : 22,000 / 52,163 xg

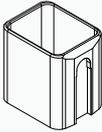


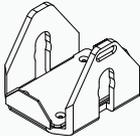
Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1736R	2236R	
0.5	27,787	46,536	GAS-m0.5(2)
0.2	25,525	42,748	GAS-m0.2(2)

## Swing Rotor, GRS-L-r250-4

- Capacity : 4 Buckets
- Max. RPM : 4,000
- Max. RCF : 3,134 xg



	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p>250 mL Rectangular Bucket <b>GLB-r250-r250</b></p> <p>Max. RPM : 4,000 Max. RCF : 3,134 xg Hole bottom type : Flat</p>	250	4	3,080	GAS-250(r250)
	85 + 15	8	3,071	GAM-85-2(r250)
	50 conical (Skirt)	16	3,145	GAM-sc50(r250)
	50 conical	12	3,107	GAM-c50-3(r250)
	25 conical	12	3,107	GAM-c50-3(r250)
	50	16	3,095	GAM-50-4(r250)
	15 conical	36	3,107	GAM-c15-9(r250)
	15	48	3,095	GAM-15-12(r250)
	Φ16 x 100 mm VT	48	3,095	GAM-15-12(r250)
	14	24	3,095	GAM-15-12(r250)
	Φ 13 x 100 mm VT	48	3,095	GAM-5-12(r250)
	Φ 13 x 75 mm VT	48	3,095	GAM-5-12(r250)
	1.5 / 2.0 mL	80	3,045	GAM-m2.0-20(r250)

 <p>Microplate Holder Bucket <b>GLP-mw-r250</b></p>	<p>Max. capacity per rotor: 16 x MTP / 4 x DWP Max. RCF : 2,737 xg Hole bottom type : Plate</p>
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## Swing Rotor, GRS-L-250-4

- Capacity : 4 Buckets
- Max. RPM : 5,000
- Max. RCF : 5,394 xg



	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)	Adaptor Cat. No.
 <p>250 mL Round Bucket <b>GLB-250-250</b></p> <p>Max. RPM : 5,000 Max. RCF : 5,394 xg Hole bottom type : Flat</p>	250	4	5,394	-
	250 conical	4	5,352	GAS-c250(250)
	100	4	5,255	GAS-100(250)
	85	4	5,255	GAS-85(250)
	50 conical (Skirted)	4	5,255	GAS-sc50-4(250)
	50 conical	4	5,394	GAS-c50(250)
	50	8	5,255	GAM-50-2(250)
	30	12	5,255	GAM-30-3(250)
	25 conical	4	5,394	GAS-c25(250)
	15 conical	16	5,338	GAM-c15-4 (250)
	15	16	5,311	GAM-15-4(250)
	Φ16 x 100 mm VT	16	5,311	GAM-10-7(250)
	Φ13 x 75~100 mm VT	32	5,311	GAM-7-8(250)
	5	16	5,338	GAM-c5-4(250)
	1.5 / 2.0	36	5,311	GAM-m2.0-9(250)

# Low-speed Centrifuges



**406**

<b>Max. capacity</b>		12 x vacuum tube
<b>Max. RPM</b>		4,000 rpm
<b>Max. RCF</b>		2,075 xg
High speed / Fixed angle rotor (Max. Capacity)	<b>5 mL Microtubes</b>	1,458
	<b>15 mL conical tubes</b>	2,075
	<b>50 mL conical tubes</b>	-
	<b>15mL round tubes</b>	2,075
	<b>50mL round tubes</b>	-
Low speed / Swing out rotor (Max. Capacity per run)	<b>Φ 13 mm blood vacuum tubes</b>	12
	<b>Φ 16 mm blood vacuum tubes</b>	12
	<b>15 mL conical tubes</b>	6
	<b>50 mL conical tubes</b>	-
	<b>PCR plates/MTP</b>	-
	<b>Deepwell plates (DWP)</b>	-



**416**



**624R**

32 x vacuum tube	32 x vacuum tube
4,000 rpm	6,000 rpm
2,774 xg	3,960 xg
2,120	2,170
2,774	2,773
2,549	3,960
2,700	2,773
2,549	3,856
32 / 20	32 / 20
32 / 20	32 / 20
12 / 8	24 / 8
10 / 4	10 / 4
4	4
2	2

# 406 Low-speed Centrifuge



## Features

- Basic blood tube centrifuge for 6 or 12 tube capacity.
- Commonly used in the fractionation of blood samples and simple precipitation of biological samples.
- Quiet Operation at less than 56 dB ensures a comfortable laboratory environment.
- UV resistant powder coated steel body for durability
- CE IVD version available (optional)

## Technical Specifications

<b>Max. RPM/PCF for Fixed Angle</b>	4,000 rpm / 2,075 xg
<b>Max. Capacity for Fixed Angle</b>	6 x 15 mL, 12 x 10 mL
<b>Time control</b>	Timed <100 min or continuous
<b>RCF/RPM conversion</b>	Yes
<b>Acc. time to Max. Speed</b>	≤20 sec
<b>Dec. time from Max. Speed</b>	≤25 sec
<b>Noise level (dependent on rotor)</b>	≤52 dB

<b>Program Memory</b>	10
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Power Requirement</b>	140 VA
<b>Dimension (W x D x H)</b>	296 x 412 x 206 mm
<b>Net Weight</b>	17.6 kg
<b>CE MARK</b>	Yes
<b>Cat No.</b>	GZ-0406

## Angle Rotor, GRA-15-6

- Capacity : 6 x VacuumTube
- Max. RPM : 4,000 / Max. RCF : 2,075



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
14	1,869	GAS-14(f15)
5	1,458	GAS-c5(f15)
Φ13 x 100 mm VT	1,986	GAS-5(f15)
Φ13 x 75 mm VT	1,708	GAS-3(f15)

## Angle Rotor, GRA-15-12

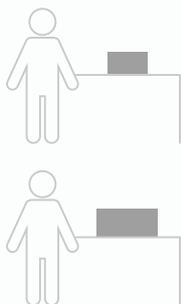
- Capacity : 12 x VacuumTube
- Max. RPM : 4,000 / Max. RCF : 2,075



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
14	1,869	GAS-14(f15)
5	1,458	GAS-c5(f15)
Φ13 x 100 mm VT	1,986	GAS-5(f15)
Φ13 x 75 mm VT	1,708	GAS-3(f15)

# 416, 624R

Low-speed Centrifuge



## Features

- Compact, low speed centrifuges with 32 x blood tube capacity for fractionation of blood samples.
- 12 x 15 mL and 8 x 50 mL capacity for simple precipitation of biological samples and cell culture.
- Bio-Safe buckets ensure safe centrifugation of hazardous samples.
- A separate button for “Soft” start/stop function to achieve very gentle acceleration and deceleration. (416 only)
- Furnished with unique air flow design and anti-vibration structure to minimize heat and noise. (416 only)
- Fast cool function, Pre-cooling to 4°C for temperature-sensitive samples preventing protein denaturation and other damages. (624R only)
- CE IVD version available. (optional only for 416)

## Technical Specifications

	416	624R
<b>Max. RPM/PCF for Fixed Angle</b>	4,000 rpm / 2,700 xg	6,000 rpm / 3,960 xg
<b>Max. RPM/PCF for Swing-out</b>	4,000 rpm / 2,826 xg	4,800 rpm / 3,888 xg
<b>Max. Capacity for Fixed Angle</b>	16 x 15 mL, 10 x 50 mL	10 x 50 mL
<b>Max. Capacity for Swing-out</b>	4 x 100 mL, 4 x 8 Vacuum tube, 2 x 2 MTPs	4 x 100 mL, 4 x 8 Vacuum tube, 2 x 2 MTPs
<b>Temp. range (°C)</b>	-	-10°C to 40°C
<b>FAST cool button</b>	-	Yes
<b>Time control</b>	Timed <100 min or continuous	Pulsed, timed <10 hr or continuous
<b>Acc. time to Max. Speed</b>	≤20 sec	-
<b>Dec. time from Max. Speed</b>	≤25 sec	-
<b>Time counting range</b>	-	Selectable, at set speed or from starting
<b>Noise level (dependent on rotor)</b>	≤52 dB	≤60dB
<b>RCF/RPM conversion</b>	Yes	Yes
<b>ACC/DEC Ramps</b>	-	9/10
<b>Program Memory</b>	10	100
<b>Power Supply</b>	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)	AC 230V, 50Hz (AC 220-230V, 60/50Hz; 110V optional)
<b>Power Requirement</b>	340 VA	900 VA
<b>Dimension (W x D x H)</b>	375 x 480 x 260 mm	584 x 535 x 317 mm
<b>Net Weight</b>	19.5 kg	65 kg
<b>CE MARK</b>	Yes	Yes
<b>Cat No.</b>	GZ-0416	GZ-0624R

## Fixed Angle Rotor, GRF-SR-c50-6

- Capacity : 6 x 50 mL conical
- Max. RPM : 6,000
- Max. RCF : 3,960 xg
- Only for 624R



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
50	3,856	GAS-50(c50)
30	3,816	GAS-30(c50)
25 conical	3,320	GAS-c25(c50)
15 conical	3,767	GAS-c15(c50)

## Angle Rotor for 416 : GRA-S-50-10 / 624R : GRA-SR-50-10

- Capacity : 10 x 50 mL
- Max. RPM : 4,000
- Max. RCF : 2,549 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	416	624R	
50 conical	2,549	2,549	GAS-c50(f50)
30	2,415	2,415	GAS-30(f50)
25 conical	2,057	2,057	GAS-c25(f50)
15 (conical)	2,538	2,538	GAS-u15(f50)
14	2,538	2,538	GAS-u14(f50)

## Angle Rotor for 416 : GRA-S-c50-10 / 624R : GRA-SR-c50-10

- Capacity : 10 x 50 mL Conical
- Max. RPM : 4,000
- Max. RCF : 2,508 xg



Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	416	624R	
50	2,435	2,435	GAS-50(c50)
30	2,424	2,424	GAS-30(c50)
25 conical	2,057	2,057	GAS-c25(c50)
15 (conical)	2,497	2,497	GAS-c15(c50)

## Angle Rotor, GRA-SR-15-24

- **Capacity : 24 x vacuum tube**
- Max. RPM : 4,000
- Max. RCF : 2,773 xg
- Only for 624R



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
14	2,549	GAS-14(f15)
5	2,170	GAS-c5(f15)
Φ13 x 100 mm VT	2,733	GAS-5(f15)
Φ13 x 75 mm VT	2,367	GAS-3(f15)

## Angle Rotor, GRA-S-15-16

- **Capacity : 16 x vacuum tube**
- Max. RPM : 4,000
- Max. RCF : 2,700 xg
- Only for 416



Tube type (mL)	Max. RCF (xg)	Adaptor Cat. No.
14	2,494	GAS-14(f15)
5	2,120	GAS-c5(f15)
Φ13 x 100 mm VT	2,612	GAS-5(f15)
Φ13 x 75 mm VT	2,397	GAS-3(f15)

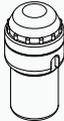
## Swing out Rotor for 416 : GRS-S-100-4 / 624R : GRS-SR-100-4

**- Capacity : 4 Buckets**

- 416 Max. RPM / RCF : 4,000 / 2,774 xg
- 624R Max. RPM / RCF : 4,200 / 3,059 xg



**Bio-Safe** Porton Down Certified

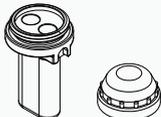
	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 <p>100 mL Bucket <b>GLBB-b100-100</b></p> <p><b>416 Max. RPM / RCF : 4,000 / 2,774 xg</b></p> <p><b>624R Max. RPM / RCF : 4,200 / 3,059 xg</b></p> <p><b>Hole bottom type : Flat</b></p>	100 *	4	2,685	2,960	GAS-100(b100)
	85	4	2,739	3,027	GAS-85(b100)
	50 conical (Skirt)	4	2,721	2,721	GAS-sc50(b100)
	50 conical	4	2,721	2,721	GAS-c50(b100)
	50	4	2,739	3,019	GAS-50(b100)
	30	4	2,739	3,019	GAS-30(b100)
	25 conical	4	2,739	3,019	GAS-c25(b100)
	15 conical *	12	2,774	3,059	GAM-c15-3(100)
	15 conical	4	2,774	3,059	GAS-c15(b100)
	15 *	12	2,721	3,000	GAM-15-3(100)
	φ16 x 100 mm VT	20	2,685	2,960	GAM-10-5(b100)
	φ13 x 75~100 mm VT	20	2,685	2,960	GAM-7-5(b100)
	5	12	1,969	2,171	GAM-c5-3(b100)
	1.5 / 2.0	24	2,685	2,960	GAM-m2.0-6(b100)

\* Cannot use cap sealing

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 <p>Dual 50 mL Conical Bucket <b>GLB-dc50-100</b></p> <p><b>416 Max. RPM / RCF : 4,000 / 2,774 xg</b></p> <p><b>624R Max. RPM / RCF : 4,200 / 3,059 xg</b></p> <p><b>Hole bottom type : Conical</b></p>	50 conical	8	2,774	3,059	-
	50	8	2,588	2,854	GAS-50(c50)
	30	8	2,592	2,858	GAS-30(c50)
	25 conical	8	2,102	2,317	GAS-c25(c50)
	15 conical	8	2,774	3,059	GAS-c15(c50)

**Bio-Safe**

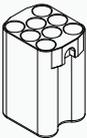
Manufacturer Validated

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 <p>Dual 15 mL Bucket <b>GLBB-bd15-100</b></p> <p>416 Max. RPM / RCF : 4,000 / 2,700 xg</p> <p>624R Max. RPM / RCF : 4,200 / 2,976 xg</p> <p>Hole bottom type : Round</p>	15 open top	8	2,700	2,976	-

**Bio-Safe**

Porton Down Certified

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 <p>Dual 15 mL Conical Bucket <b>GLBB-bdc15-100</b></p> <p>416 Max. RPM / RCF : 4,000 / 2,774 xg</p> <p>624R Max. RPM / RCF : 4,200 / 3,059 xg</p> <p>Hole bottom type : Conical</p>	15 conical	8	2,774	3,059	-
	14	8	2,352	2,593	GAS-14(c15)
	5	8	1,746	1,925	GAS-c5(c15)

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 <p>Vacuum tube Bucket <b>GLB-15-8-100</b></p> <p>416 Max. RPM / RCF : 4,000 / 2,719 xg</p> <p>624R Max. RPM / RCF : 4,200 / 2,998 xg</p> <p>Hole bottom type : Flat</p>	15	8	2,719	2,998	-
	15 open top	32	2,719	2,998	-
	Φ16 x 100 mm VT	32	2,719	2,998	-
	14	16	2,513	2,771	GAS-14(f15)
	5	16	2,003	2,209	GAS-c5(f15)
	Φ13 x 100 mm VT	32	2,719	2,998	GAS-5(f15)
	Φ13 x 75 mm VT	32	2,236	2,465	GAS-3(f15)

## Swing out Rotor for 416 : GRS-S-50-4 / 624R : GRS-SR-50-4

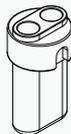


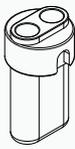
**- Capacity : 4 Buckets**

- 416 Max. RPM / RCF : 4,000 / 2,700 xg
- 624R Max. RPM / RCF : 4,800 / 3,888 xg

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 50 mL Bucket <b>GLB-50-50</b>  416 Max. RPM / RCF : 4,000 / 2,700 xg  624R Max. RPM / RCF : 4,800 / 3,888 xg  Hole bottom type : Flat	50	4	2,700	3,888	-
	50 conical	4	2,700	3,888	GAS-c50(f50)
	30	4	2,583	3,720	GAS-30(f50)
	25 conical	4	2,107	3,034	GAS-c25(f50)
	15 (conical)	4	2,700	3,888	GAS-u15(f50)
	14	4	2,700	3,888	GAS-u14(f50)

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 50 mL Conical Bucket <b>GLB-c50-50</b>  416 Max. RPM / RCF : 4,000 / 2,700 xg  624R Max. RPM / RCF : 4,800 / 3,888 xg  Hole bottom type : Conical	50 conical	4	2,700	3,888	-
	50	4	2,517	3,624	GAS-50(c50)
	30	4	2,517	3,624	GAS-30(c50)
	25 conical	4	2,027	2,918	GAS-c25(c50)
	15 conical	4	2,700	3,887	GAS-c15(c50)

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 Dual 15 mL Bucket <b>GLB-d15-50</b>  416 Max. RPM / RCF : 4,000 / 2,700 xg  624R Max. RPM / RCF : 4,800 / 3,888 xg  Hole bottom type : Round	15	8	2,700	3,888	-

	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 Dual 15 mL Conical Bucket <b>GLB-dc15-50</b> <b>416 Max. RPM / RCF :</b> <b>4,000 / 2,700 xg</b> <b>624R Max. RPM / RCF :</b> <b>4,800 / 3,888 xg</b> <b>Hole bottom type : Conical</b>	15 conical	8	2,700	3,888	-
	14	8	2,277	3,279	GAS-14(c15)
	5	8	1,671	2,406	GAS-c5(c15)

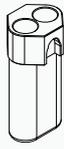
## Swing out Rotor for 416 : GRS-S-15-6 / 624R : GRS-SR-15-6

### - Capacity : 6 Buckets

- 416 Max. RPM / RCF : 4,000 / 2,737 xg

- 624R Max. RPM / RCF : 4,400 / 3,312 xg



	Tube type (mL)	Max. capacity per rotor	Max. RCF (xg)		Adaptor Cat. No.
			416	624R	
 Dual Vacuum Tube Bucket <b>GLB-d15-15</b> <b>416 Max. RPM / RCF :</b> <b>4,000 / 2,737 xg</b> <b>624R Max. RPM / RCF :</b> <b>4,400 / 3,312 xg</b> <b>Hole bottom type : Flat</b>	Φ16 x 100 mm VT	12	2,737	3,312	-
	Φ13 x 100 mm VT	12	2,737	3,312	GAS-5(f15)
	Φ13 x 75 mm VT	12	2,164	2,727	GAS-3(f15)

## Swing out Rotor for 416 : GRS-S-mw-2 / 624R : GRS-SR-mw-2

### - Max. capacity per rotor: 4 x MTP / 2 x DWP

- Max. RPM : 4,000

- Max. RCF : 2,000 xg



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# LABTECH

## CENTRIFUGE CATALOG

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