OT-1248 / OT-1248R / OT-1580 / OT-1580R

Multi-purpose Centrifuges

The OT-1248 and OT-1580 series are multi-purpose centrifuges available in both air-ventilated and refrigerated models, offering high-speed performance up to 15,000 RPM with fixed-angle rotors.
While the medium-throughput OT-1248 models accommodate 4 x 250 mL swing-out buckets, the high-throughput OT- 1580 models expand this capacity to 4 x 750 mL to meet diverse laboratory requirements.









9/10 · 100 · ID · Auto · MOTORIZED · Bio · R model · Automatic · 1248 / 1580

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Features

· Automatic RPM/RCF conversion and a dedicated "Pulse" key for quick spins facilitate efficient operation.
· Intuitive control interface with numeric input buttons allows for effortless setting and modification of running conditions.
· Key lock function ensures that set parameters remain secure during operation.
· Lid drop protection design provides enhanced safety and convenience during sample loading and unloading.
· Selectable "At set speed" time mode counts the run time only once the target speed is reached.
· Bio-seal screw-type buckets are available for aerosol-tight operation with hazardous samples. (1580, 1580R)
· Automatic lid opening at the completion of a run signals the end of the process and prevents sample warming. (1248, 1580)
· Integrated cooling system provides a temperature range of -20°C to 40°C (1248R) or -10°C to 40°C (1580R).
· "Fast Cool" function chills the chamber from room temperature to 4°C within 8 minutes for rapid startup. (1248R, 1580R)
· Compressor-off function when the lid is open minimizes unnecessary cooling and frosting. (1248R, 1580R)

Technical Specifications

Model Name	OT-1248	OT-1248R	OT-1580	OT-1580R
Max. RPM / Fixed angle	12,000 rpm		15,000 rpm	
Max. RPM / Swing-out	5,000 rpm		5,000 rpm	
Max. RCF / Fixed angle	16,582 x g		24,249 x g	25,910 x g
Max. RCF / Swing-out	5,394 x g		5,394 x g	
Max. capacity / Fixed angle	6 x 85 mL		6 x 85 mL	6 x 250 mL
Max. capacity / Swing-out	4 x 250 mL		4 x 750 mL	
Settable Min. RPM	500			
RCF/RPM conversion	Yes			
Temperature range (°C)	-	-20°C to 40°C	-	-10°C to 40°C
FAST cool button	-	Yes	-	Yes
Key lock function	Yes			
Time control	Pulse, Timed < 100 min or continuous	Pulse, Timed < 100 hr or continuous	Pulse, timed < 100 min or continuous	Pulse, Timed < 100 hr or continuous
Time counting	Selectable, at set speed or from starting			
Noise level (dependent on rotor)	≤60 dB			
ACC/DEC ramps	9/10			
Program memory	100			
Rotor identification	Automatic			
Imbalance cutout	Yes			
Safety lid lock	Yes			
Motorized door open & close	Yes			
Power supply (V/Hz)	220-230V~, 50/60Hz (110V 60Hz optional)			
Power Requirement (VA)	900VA	2.5KVA	1.5KVA	2.5KVA
Dimension (W x D x H, mm)	475 x 561 x 330	655 x 620 x 357	540 x 650 x 380	770 x 650 x 390
Weight without rotor	40 kg	78 kg	57 kg	93 kg
Cat. No.	OT-1248	OT-1248R	OT-1580	OT-1580R

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Fixed Angle Rotor

GRF-G-250-6 **1580R Only**

- Capacity : 6 x 250 mL
- Max. RPM : 8,500
- Max. RCF : 8,893 xg



Adaptors

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)

Tube type (mL)	Max. capacity per Rotor	Max. RCF (xg)	Adaptor Cat. No.
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 conical	24	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
- Max. RPM / RCF
  10,000 / 12,298 xg (1248 / 1248R / 1580)
  12,000 / 17,709 xg (1580R)



Adaptors

Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 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)

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Fixed Angle Rotor

GRF-G-50-8

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



Adaptors

Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 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
- Max. RPM / RCF
  10,000 / 12,298 xg (1248 / 1248R / 1580)
  13,000 / 20,784 xg (1580R)



Adaptors

Tube type (mL)	Max. RCF (xg)		Adaptor Cat. No.
	1248 / 1248R / 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
- Max. RPM / RCF
  12,000 / 16,582 xg (1248 / 1248R / 1580)
  15,000 / 25,910 xg (1580R)



Adaptors

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

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Fixed Angle Rotor

GRF-G-m2.0-30



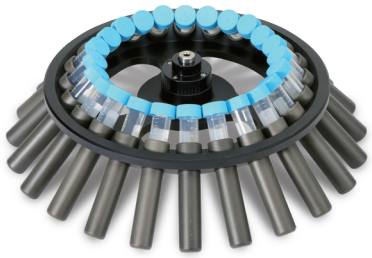
- Max. Capacity : 30 x 1.5 / 2.0 mL
- Max. RPM / RCF
  12,000 / 15,520 xg (1248 / 1248R)
  15,000 / 24,249 xg (1580 / 1580R)

Adaptors

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

Angle Rotor

GRA-G-15-24



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

Adaptors

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)

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Swing-out Rotor

GRS-G-r750-4 **1580 / 1580R Only**

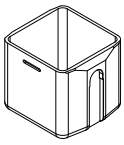
- Capacity : 4 buckets
- Max. RPM : 3,600
- Max. RCF : 2,898 xg



750 mL Rectangular Bucket

GLB-r750-r750

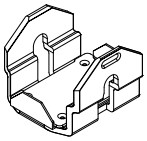
- Capacity: 1EA adaptor
- Max. RPM : 3,600
- Max. RCF : 2,898 xg
- Hole bottom type : Flat



Microplate Bucket

GLP-mw-r750

- Max. Capacity: 4 x MTP / 1 x DWP
- Max. Load : 330 g
- Max. RPM : 3,000
- Max. RCF : 1,726 xg



Adaptors

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 conical	64	2,869	GAM-c15-16(r750)
15	80	2,854	GAM-15-20(r750)
14	32	2,854	GAM-15-20(r750)
Φ16 x 100 mm VT	80	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)

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Swing-out Rotor

GRS-G-750-4 **1580 / 1580R Only**

- Capacity : 4 Buckets
- Max. RPM : 4,000
- Max. RCF : 2,898 xg

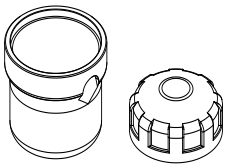
Bio-Safe Manufacturer Validated



750 mL Bio-safe Bucket with Screw Type Cap

GLBB-b750-750

- Capacity: 750 mL bottle or 1EA adaptor
- Max. RPM : 4,000
- Max. RCF : 3,667 xg
- Hole bottom type : Flat



Adaptors

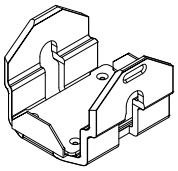
Tube type (mL)	Max. capacity per Rotor	Max. RCF (xg)	Adaptor Cat. No.
500	4	3,604	GAS-500(750)*
500 conical	4	3,667	GAS-c500(750)*
250 conical	4	3,667	GAS-c250(750)*
250	4	3,595	GAS-250(750)
50 conical	20	3,667	GAM-c50-5(750)
25 conical	28	3,667	GAM-c50-5(750)
50	56	3,595	GAM-50-7(750)
15 conical	40	3,667	GAM-c15-14(750)
5 conical	76	3,667	GAM-c15-14(750)
15	28	3,595	GAM-15-19(750)
14	84	3,595	GAM-15-19(750)
Φ16 x 100 mm VT	96	3,595	GAM-10-21(750)
Φ13 x 100 mm VT	96	3,595	GAM-5-24(750)
Φ13 x 75 mm VT	120	3,595	GAM-5-24(750)

* Cannot use cap sealing

Microplate Bucket

GLP-mw-750

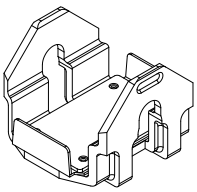
- Max. Capacity: 4 x MTP / 1 x DWP
- Max. Load : 330 g
- Max. RPM : 3,000
- Max. RCF : 1,726 xg



High Speed Microplate Bucket

GLP-mw-750D

- Max. Capacity: 4 x MTP / 1 x DWP
- Max. Load : 330 g
- Max. RPM : 3,600
- Max. RCF : 2,485 xg



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Swing-out Rotor

GRS-G-r250-4

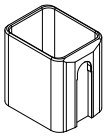
- Capacity : 4 Buckets
- Max. RPM : 4,000
- Max. RCF : 2,737 xg



250 mL Rectangular Bucket

GLB-r250-r250

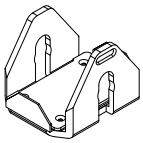
- Capacity: 1EA adaptor
- Max. RPM : 4,000
- Max. RCF : 2,737 xg
- Hole bottom type : Flat



Microplate Bucket

GLP-mw-r250

- Max. Capacity: 4 x MTP / 1 x DWP
- Max. Load : 330 g
- Max. RPM : 4,000
- Max. RCF : 2,737 xg



Adaptors

Tube type (mL)	Max. capacity per Rotor	Max. RCF (xg)	Adaptor Cat. No.
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(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)
14	24	3,095	GAM-15-12(r250)
Φ16 x 100 mm VT	48	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)

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Swing-out Rotor

GRS-G-250-4

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



250 mL Bucket

GLB-250-250

- Capacity: 250 mL bottle or 1EA adaptor
- Max. RPM : 5,000
- Max. RCF : 5,394 xg
- Hole bottom type : Flat



Adaptors

Tube type (mL)	Max. capacity per Rotor	Max. RCF (xg)	Adaptor Cat. No.
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 conical	16	5,338	GAM-c5-4(250)
1.5 / 2.0	36	5,311	GAM-m2.0-9(250)

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