

Multi-Purpose, High-Speed Centrifuges



1580R

15,000 / 25,910 xg



1580

15,000 / 24,249 xg



1248R

12,000 / 16,582 xg



1248

12,000 / 15,520 xg



1236R

12,000 / 16,582 xg

* All tubes showed in this catalog are not included in GYROZEN products.

1248 · 1248R · 1236R
1580 · 1580R



GYROZEN multi-purpose, high-speed centrifuges - 1248, 1248R, 1236R, 1580 and 1580R - share rotors (G-family), buckets and accessories so as to offer a cost-efficient solution and save laboratory space. 1248, 1248R and 1236R with max. 12,000 rpm can accommodate up to four of 250 ml capacity with a compact footprint and can be used for medium throughput applications. 1580 and 1580R multi-purpose centrifuges are designed for daily-working laboratories with large-volumes and quantities samples up to 3 Liters (4 x 750 ml). These two go up to 15,000 rpm and offer a great variety of rotors, buckets and tube adaptors for diverse applications. The 'R' models are equipped with a powerful refrigeration system that allows the temperature to cool down to 4 °C from room temperature within 5 minutes. Therefore, you can save your time and your precious samples at a proper temperature. 1248, 1248R, 1580 and 1580R are bench-top centrifuges whereas the 1236R is a floor standing. The space-saving, compact 1236R has 4 casters at the bottom of the body so that it can be easily moved, positioned and safely locked. Also, its perfect height allows you to easily load and unload samples. GYROZEN's multi-purpose centrifuges are ideal for cellular and molecular biology work, clinical preparations, nano-particles separations, industrial applications and food science, etc.



► Features

- Max. speed of 12,000 rpm or 15,000 rpm with high capacity and a large assortment of rotor
- Fast cooling function to 4°C in 5 minutes for fast startup of cooled samples (only for "R" models)
- The compressor-off function when lid is open minimizes unnecessary cooling and frosting (only for "R" models).
- Intuitive control interface with numeric input buttons allows easy setting and editing of running conditions.
- Selectable time mode of "at set SPEED" for counting running time only when reached the set speed
- A separate "PULSE" key for quick spin
- Parameters can be changed during operation.
- Key lock function helps the set parameters secured during operation.
- With motorized lid mechanics, only a gentle touch is sufficient to close and open the lid.
- Lid drop protection design allows easiness and safety when loading or unloading samples.
- The short working height of 83 cm (33 inches) ensures easy loading and unloading (only for 1236R).
- A large assortment of rotors, buckets and adaptors support diverse application doable with one instrument.

1248 · 1248R · 1236R · 1580 · 1580R

► Technical Specifications

		1248	1248R	1236R	1580	1580R
Max. RPM/RCF	Fixed angle	12,000 / 15,520 xg	12,000 / 16,582 xg	12,000 / 16,582 xg	15,000 / 24,249 xg	15,000 / 25,910 xg
	Swing-out	5,000 / 5,394 xg				
Max. capacity	Fixed angle	6 x 85 ml, 30 x 1.5/2.0 ml				6 x (250 & 15) ml, 30 x 1.5/2.0 ml
	Swing-out	4 x 250 ml, 48 x 15 ml, 16 MTPs			4 x 750 ml, 80 x 15 ml, 16 MTPs	
Temp. range (°C)		-	-20 to +40	-20 to +40	-	-20 to +40
FAST cool button		-	Yes	Yes	-	Yes
Time control		Pulse, timed < 100 min or continuous	Pulse, timed < 10 hr or continuous	Pulse, timed < 10 hr or continuous	Pulse, timed < 100 min or continuous	Pulse, timed < 10 hr or continuous
Time counting modes		Selectable, at set speed or from starting				
RPM/RCF conversion		Yes				
Noise level (dB)		~ 60				
ACC/DEC		9/10 steps				
Program memory		100				
Parameters on display window		RPM (RCF), Oper Status, Lid Open/Close, Min:Sec, ACC, DEC	RPM (RCF), Oper Status, Lid Open/Close, Hr:Min, Temp, ACC, DEC		RPM (RCF), Oper Status, Lid Open/Close, Min:Sec, ACC, DEC	RPM (RCF), Oper Status, Lid Open/Close, Hr:Min, Temp, ACC, DEC
Display		Blue LCD				
Automatic rotor identification		Yes				
Imbalance cut-off		Yes				
Safety lid lock		Yes				
Lid drop protection		Yes				
Motorized lid open & close		Yes				
Automatic lid release at completion		Yes	-		Yes	-
Chamber material		Aluminum/Anodizing	SUS304	SUS304	Aluminum/Anodizing	SUS304
Power supply		230 V, 50 Hz (AC 220-230 V, 50/60 Hz; 110 V optional)				
Power requirement		900 VA	2.5 kVA	2.5 kVA	1.5 kVA	2.5 kVA
Dimension (W x D x H, mm)		475 x 591 x 330	655 x 610 x 355	475 x 610 x 830	540 x 650 x 380	770 x 650 x 390
Weight without rotor (kg)		40	78	110	57	93
CE mark		Yes				
Cat. No.		GZ-1248	GZ-1248R	GZ-1236R	GZ-1580	GZ-1580R

► Applications

- Ideal for cellular and molecular biology work, clinical preparations, industrial applications, etc.

▶ Control Panel

1248 · 1580

Display Screen

Status of Speed, Time, ACC, DEC, Running, Lid Open / Close

Setting Speed

Touch once : RPM
Touch twice : RCF

Setting Time

To 99 min. 59 sec
or Continuous (00:00)

Setting ACC

ACC (1 ~ 9 / Max. 9)

Setting DEC

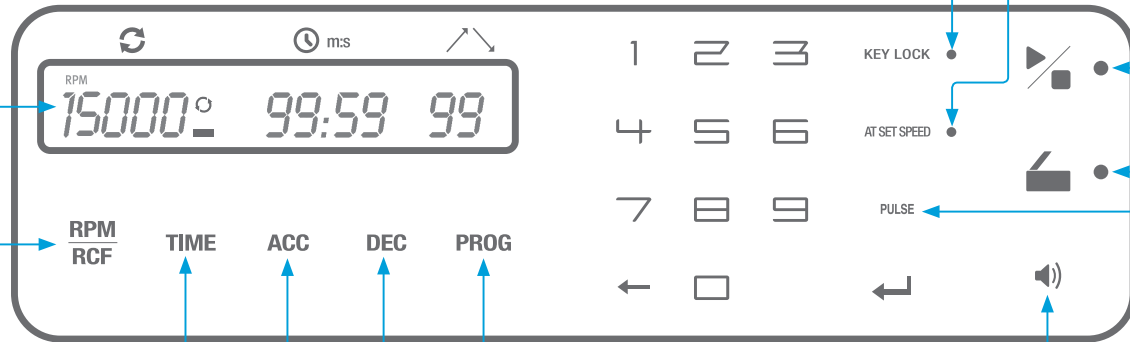
DEC (0~9 / Natural DEC 0)

Program SAVE / CALL

Touch once : CALL
Touch twice : SAVE (up to 100)

End Alarm

Sound volume
(level : 0 ~ 10, 0 : silent)



Key Lock / UnLock

At Set Speed

On : Counts the time at set speed / Off : Counts the time from starting
Touch more than 2 sec : Repeat time of end alarm (time : 0 ~ 99, 0 : silent)

Start / Stop
LED ON : Start / Run
LED OFF : Stop

Lid Open
Open : LED turns on

Pulse
Short Spin

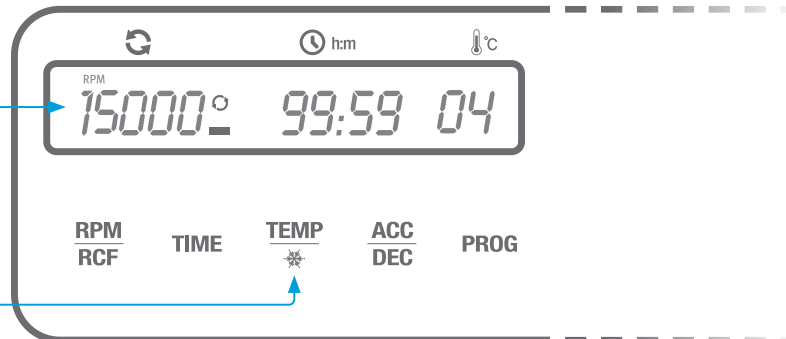
1248R · 1236R · 1580R

Display Screen

Status of Speed, Time, Temperature, ACC, Running, DEC, Lid Open / Close

Temp / Fast Cool

-20°C ~ 40°C
Fast Cool
(fast temp function)



1248 · 1248R · 1236R · 1580 · 1580R

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

4 loadings
 $\leq 90^\circ$

Only for 1580, 1580R



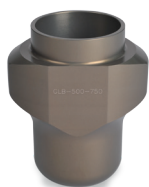
* GLB-b750-750 includes cap.



Round 750 ml Bucket with Cap GLB-b750-750/ GLB-750-750

Bucket bore (Φ x L, mm) : 99 x 101.5
 Radius (mm) : 205
 Max. RPM : 4,000
 Max. RCF (g-force) : 3,667
 Max. height for tube fit (mm) :
 130 (w/ cap) / 142 (w/o cap)

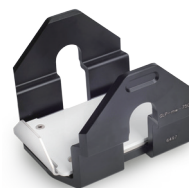
Tube											
Tube capacity (ml)	3	5	10	15	15 ml conical	50	50 ml conical	250	250 ml conical	500 ml conical	750
Tube rack											None
Cat. No.	GAM-5-24(750)		GAM-10-21(750)	GAM-15-19(750)	GAM-c15-14(750)	GAM-50-7(750)	GAM-c50-5(750)	GAS-250(750)	GAS-c250(750)	GAS-c500(750)	-
Rack capacity (ea/4)	24/96		21/84	19/76	14/56	7/28	5/20	1/4	1/4	1/4	1/4
Hole dimension (Φ xL, mm)	13.2 x 58	13.2 x 85	16 x 85	17.2 x 85	17 x 85	29.2 x 87	29.2 x 88	62.3 x 87	60.5 x 125	95.6 x 58	-



Round 500 ml Bucket GLB-500-750

Bucket bore (Φ x L, mm) : 69.2 x 135
 Radius (mm) : 218
 Max.RPM : 4,000
 Max.RCF (g-force) : 3,900
 Max.height for tube fit (mm) : 165

Tube	
Tube capacity (ml)	500
Bucket capacity (ea/4)	1/4



Microplate Holder GLP-mw-750

Holder bore (w x d x h, mm)
 : 88 x 128.5 x 80
 Radius (mm) : 171.5
 Max.RPM : 4,000
 Max.RCF (g-force) : 3,068

Plate		
Plate capacity (ml)	MTP	DWP
Holder capacity (ea/4)	4/16	1/4

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

4 loadings
 $\angle 90^\circ$

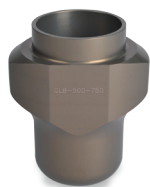
Only for 1580, 1580R



Rectangular 750 ml Bucket GLB-r750-r750

Bucket bore (w x d x h, mm) : 99 x 99 x 98
 Radius (mm) : 200
 Max.RPM : 3,600
 Max.RCF (g-force) : 2,898
 Max.height for tube fit(mm) : 135

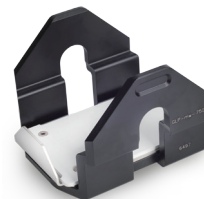
Tube										
Tube capacity (ml)	3	5	10	15	15 ml conical	50	50 ml conical	250	250 ml conical	500 ml conical
Tube rack										
Cat. No.	GAM-5-30(r750)		GAM-15-20(r750)		GAM-c15-16(r750)	GAM-50-8(r750)	GAM-c50-5(r750)	GAS-250(r750)	GAS-c250(r750)	GAS-c500(r750)
Rack capacity (ea/4)	30/120		20/80		16/64	8/32	5/20	1/4	1/4	1/4
Hole dimension (ΦxL, mm)	13 x 56.5	13 x 85	17.2 x 85		17.5 x 85	29.5 x 85	29.5 x 85	62.5 x 87	61 x 93	98 x 94



Round 500 ml Bucket GLB-500-r750

Bucket bore (Φ x L, mm) : 69.2 x 135
 Radius (mm) : 218
 Max.RPM : 3,600
 Max.RCF (g-force) : 3,159
 Max.height for tube fit (mm) : 165

Tube	
Tube capacity (ml)	500
Bucket capacity (ea/4)	1/4



Microplate Holder GLP-mw-r750

Holder bore (w x d x h, mm) : 88 x 128.5 x 80
 Radius (mm) : 171.5
 Max.RPM : 3,600
 Max.RCF (g-force) : 2,485

Plate		
Plate capacity (ml)	MTP	DWP
Holder capacity (ea/4)	4/16	1/4

1248 · 1248R · 1236R · 1580 · 1580R

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

4 loadings
 $\angle 90^\circ$



Round 250 ml Bucket GLB-250-250

Bucket bore (Φ x L, mm) : 62 x 109
 Radius (mm) : 193
 Max.RPM : 5,000
 Max.RCF (g-force) : 5,394
 Max.height for tube fit (mm) : 153

Tube



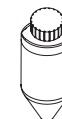
Tube capacity (ml)	250
Bucket capacity (ea/4)	1/4



Conical 250 ml Bucket GLB-c250-250

Bucket bore (Φ x L, mm) : 60.5 x 130.2
 Radius (mm) : 193
 Max.RPM : 5,000
 Max.RCF (g-force) : 5,394
 Max.height for tube fit (mm) : 153

Tube



Tube capacity (ml)	250 ml conical
Bucket capacity (ea/4)	1/4



60 ml Syringe Bucket GLB-60-250

Bucket bore (Φ x L, mm) : 31.5 x 130.2
 Radius (mm) : 193
 Max.RPM : 5,000
 Max.RCF (g-force) : 5,394
 Max.height for tube fit (mm) : 165

Tube



Tube capacity (ml)	60 ml syringe
Bucket capacity (ea/4)	1/4

Adaptor



Cat. No.	GAS-60s(60)
Adaptor bore (Φ x L, mm)	Custom-made



Dual Syringe Bucket GLB-d20/10-250

Bucket bore (Φ x L, mm) :
 22.5 x 100 (20) / 16 x 90 (10)
 Radius (mm) : 170 / 160
 Max.RPM : 5,000
 Max.RCF(g-force) : 4,752 / 4,472
 Max.height for tube fit (mm) : 132 / 125

Tube



Tube capacity (ml)	10 ml syringe	20 ml syringe
Bucket capacity (ea/4)	2/8	2/8

Adaptor



Cat. No.	GAS-10s(10)	GAS-20s(20)
Adaptor bore (Φ x L, mm)	Custom-made	Custom-made

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

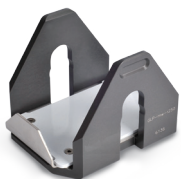
4 loadings
 $\angle 90^\circ$



Rectangular 250 ml Bucket GLB-r250-r250

Bucket bore (w x d x h, mm)
 : 86 x 70.3 x 102.5
 Radius (mm) : 175.2
 Max.RPM : 4,000
 Max.RCF (g-force) : 3,134
 Max.height for tube fit (mm) : 130

Tube											
Tube capacity (ml)	1.5/2.0	3	5	10	15	15 ml conical	50	50 ml conical	15	85	250
Tube rack											
Cat. No.	GAM-m2.0-20 (r250)	GAM-5-12(r250)		GAM-15-12(r250)		GAM-c15-9 (r250)	GAM-50-4 (r250)	GAM-c50-3 (r250)	GAM-85-2(r250)		GAS-250(r250)
Rack capacity (ea/4)	20/80	12/48		12/48		9/36	4/16	3/12	2/8		1/4
Hole dimension (Φ x L, mm)	11.3 x 39	13.5 x 58	13.5 x 80	17.5 x 90		17.5 x 90	30.2 x 90	30.5 x 90	17 x 86.5	38.5 x 86.5	62.5 x 87



Microplate Holder GLP-mw-r250

Holder Dimension (w x d x h, mm)
 : 88 x 128.5 x 80
 Radius (mm) : 153
 Max.RPM : 4,000
 Max.RCF(g-force) : 2,737

Plate		
Plate capacity (ml)	MTP	DWP
Holder capacity (ea/4)	4/16	1/4

1248 · 1248R · 1236R · 1580 · 1580R

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

6 loadings
∠ 90°



Round 100 ml Bucket with Cap
GLB-b100-100

Bucket bore (Φ x L, mm) : 47 x 99
Radius (mm) : 173.6
Max.RPM : 4,000
Max.RCF (g-force) : 3,105
Max.height for tube fit (mm)
: 120(w/ cap) / 130(w/o cap)

* GLB-b100-100 includes cap.
* (b100) adaptors work fine with cap but (100) adaptors not.

Tube										
Tube capacity (ml)	1.5~2.0	2.6~7	4~10	9~15	15 ml conical	15 ml conical	50 ml	50 ml conical	85	100
Tube rack										
Cat. No.	GAM-m2.0-6 (b100)	GAM-7-5 (b100)	GAM-10-5 (b100)	GAM-15-3 (100)	GAM-c15-3 (100)	GAS-c15 (b100)	GAS-50 (b100)	GAS-c50 (b100)	GAS-85 (b100)	GAS-100 (b100)
Rack capacity (ea/6)	6/36	5/30	5/30	3/18	3/18	1/6	1/6	1/6	1/6	1/6
Hole dimension (Φ x L, mm)	11 x 39	13.5 x 60	16 x 60	17.5 x 105	17.2 x 106.5	17.2 x 106.5	29.5 x 95.9	30 x 100	38.5 x 96.4	44.2 x 93



Round 50 ml Bucket with Cap
GLB-b50-100

Bucket bore (Φ x L, mm) : 30.5 x 97
Radius (mm) : 169.5
Max.RPM : 4,000
Max.RCF (g-force) : 3,032
Max.height for tube fit (mm)
: 115(w/ cap) / 125(w/o cap)

Tube				
Tube capacity (ml)	15	15 ml conical	50 ml conical	50
Adaptor				None
Cat. No.	GAS-u15(50)	GAS-c50(50)	-	
Adaptor bore (Φ x L, mm)	17.3 x 87		29.5 x 17.5	



Dual Round 15 ml Bucket with Cap
GLB-bd15-100

Bucket bore (Φ x L, mm) : 17 x 98
Radius (mm) : 169.5
Max.RPM : 4,000
Max.RCF (g-force) : 3,032
Max.height for tube fit (mm)
: 123(w/ cap) / 127(w/o cap)

Tube	
Tube capacity (ml)	15
Bucket capacity (ea/4)	2/12



Dual Conical 15 ml Bucket with Cap
GLB-bdc15-100

Bucket bore (Φ x L) : 17 x 102.5
Radius (mm) : 173.6
Max.RPM : 4,000
Max.RCF (g-force) : 3,105
Max.height for tube fit (mm) : 120

Tube	
Tube capacity (ml)	15 ml conical
Bucket capacity (ea/4)	2/12



Vacutainer 10 ml Bucket
GLB-10-8-100

Bucket bore (Φ x L, mm) : 16 x 89
Radius (mm) : 173.6
Max.RPM : 4,000
Max.RCF (g-force) : 3,105
Max.height for tube fit (mm) : 120

Tube			
Tube capacity (ml)	3	5	10
Bucket capacity (ea/6)	8/48	8/48	8/48
Adaptor			None
Cat No.	GAS-3(10)	GAS-5(10)	-
Adaptor bore (Φ x L, mm)	13 x 57	13 x 82	-
Radius (mm)	142.6	167.6	173.6
Max. RPM	4,000		
Max. RCF (g-force)	2,551	2,998	3,105



1248 · 1248R · 1236R · 1580 · 1580R



Fixed Angle Rotor, GRF-G-250-6

6 x (250 & 15 ml)
 \angle 25°
 Hole diameter (250/15) (mm) : 62/17
 Max height for tube fit (250/15) (mm) :
 130/120











Only for 1580R

Tube		
Tube capacity (ml)	15	250
Radius (mm)	131.3	134
Max.RPM (1580R)	8,000	
Max.RCF (g-force)	9,395	9,588



Fixed Angle Rotor, GRF-G-85-6

6 x 85 ml
 \angle 34°
 Hole diameter (mm) : 38.5
 Max. height for tube fit (mm) : 122







Tube						
Tube capacity (ml)	10	15	15 ml conical	50	50 ml conical	85
Adaptor						None
Cat. No.	GAS-15(85)		GAS-c15(85)	GAS-50(85)	GAS-c50(85)	-
Adaptor bore (ΦxL, mm)	17 x 94		17 x 98	29 x 95	29.5 x 98	-
Radius (mm)	102	103	101	104	102	110
Max.RPM (1580R)	12,000					
Max.RCF (g-force)	16,424	16,582	16,260	16,743	16,421	17,709
Max.RPM (1248/1248R/1236R/1580)	10,000					
Max.RCF (g-force)	11,404	11,515	11,292	11,627	11,404	12,298



Fixed Angle Rotor, GRF-G-50-8

8 x 50 ml
 $\angle 30^\circ$
 Hole diameter (mm) : 29.5
 Max. height for tube fit (mm) : 120

Not applicable for 1248




Tube				
Tube capacity (ml)	10	15	15 ml conical	50
Adaptor				None
Cat. No.	GAS-15(50)		GAS-c15(50)	-
Adaptor bore ($\Phi \times L$, mm)	17 x 94		17 x 105	-
Radius (mm)	92.5	93.5	96	103
Max.RPM (1580R)	15,000			
Max.RCF (g-force)	23,268	23,520	24,149	25,910
Max.RPM (1248R/1236R/1580)	12,000			
Max.RCF (g-force)	14,892	15,053	15,455	16,582



Fixed Angle Rotor, GRF-G-c50-6

6 x 50 ml conical
 $\angle 25^\circ$
 Hole diameter (mm) : 29.5
 Max. height for tube fit (mm) : 125

Not applicable for 1248

Tube		
Tube capacity (ml)	15 ml conical	50 ml conical
Adaptor		None
Cat. No.	GAS-c15(c50)	-
Adaptor bore ($\Phi \times L$, mm)	17 x 105	-
Radius (mm)	93.6	98.4
Max.RPM (1580R)	13,000	
Max.RCF (g-force)	17,685	18,592
Max.RPM (1236R/1248R/1580)	10,000	
Max.RCF (g-force)	10,464	11,101

1248 · 1248R · 1236R · 1580 · 1580R



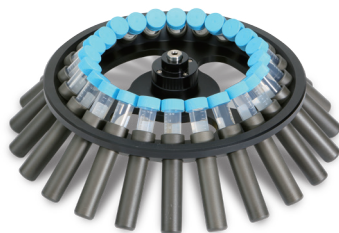
Fixed Angle Rotor, GRF-G-15-24

24 x 15 ml
 \angle 30°
 Hole diameter (mm) : 17.5
 Max. height for tube fit (mm) : 115



Fixed Angle Rotor, GRF-G-c15-12

12 x 15 ml conical
 \angle 25°
 Hole diameter (mm) : 17
 Max. height for tube fit (mm) : 125



Angle Rotor, GRA-G-15-24A

24 x 15 ml
 \angle 45°
 Hole diameter (mm) : 18
 Max. height for tube fit (mm) : 125
 (120 for conical tube)



Aluminum 15 ml Sleeve **GLB-15A-FA**

Sleeve bore (Φ x L, mm) : 18 x 90
 Radius (mm) : 175.2
 Max. RPM : 4,000
 Max.RCF(g-force) : 3,134

Only for R models

Tube	
Tube capacity (ml)	15
Radius (mm)	103/124
Max.RPM	8,000
Max.RCF (g-force)	7,370/8,872

Not applicable for 1248






Tube	
Tube capacity(ml)	15 ml conical
Radius(mm)	103
Max.RPM (1580R)	15,000
Max.RCF (g-force)	25,910
Max.RPM (1236R/1248R/1580)	12,000
Max.RCF (g-force)	16,582

Tube						
Tube capacity (ml)	3	4	5	10	15	15 ml conical
Adaptor				None	None	None
Cat. No.	GAS-3(15)	GAS-4(15)	GAS-5(15)	-	-	-
Adaptor bore (Φ x L, mm)	13.5 x 61	13.5 x 65	13.5 x 85	-	-	-
Radius (mm)	155.2	158.2	167.2	174.5	175.5	171.5
Max.RPM	4,000					
Max.RCF (g-force)	2,776	2,830	2,990	3,121	3,134	3,068



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



30 x 1.5/2.0 ml
 \angle 45°
 Hole diameter (mm) : 11.1
 Max. height for tube fit (mm) : 52

Tube			
Tube capacity (ml)	0.2	0.5	1.5/2.0
Adaptor			None
Cat No.	GAS-m0.2(2)	GAS-m0.5(2)	-
Adaptor bore (ΦxL, mm)	6.5 x 23	8 x 31	-
Radius (mm)	79	86	96.4
Max.RPM (1580/1580R)	15,000		
Max.RCF (g-force)	19,872	21,633	24,249
Max.RPM (1248/1248R/1236R)	12,000		
Max.RCF (g-force)	12,718	13,835	15,520



Fixed Angle Rotor, GRF-G-s0.2-64

8 x 8-tube PCR strips, 64 x 0.2 ml
 \angle 45°
 Hole diameter (mm) : 6.5
 Max. height for tube fit (mm) : 16

Tube		
Tube capacity(ml)	0.2	8-Strip tube
Radius(mm)	1st : 58.6 / 2nd : 67.1	
Max.RPM	12,000	
Max.RCF(g-force)	1st : 9,434 / 2nd : 10,803	