

1848R Micro Centrifuge



Features

- Speed : 18,000 rpm (30,536 xg); 13,000 rpm (16,438 xg)
- Capacity / Swing-out : 6 x 4 x 2.0 mL; 2 x 2 MTPs
- Capacity/FixedAngle: 8xc50mL; 20x5.0mL; 48x1.5/2.0mL
- Highly visible display screen, numeric keys with integrated touch buttons for easy operation and quick setting
- “PULSE” key for quick spin
- Fast cooling for cooled samples
- Key lock function

Technical Specifications












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

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

Fixed Angle Rotor, GRF-M-c50-8

- Capacity : 8 x 50 mL Conical | Max. RPM / RCF : 8,500 / 8,893
- Hole angle from axis during rotation : $\leq 30^\circ$
- Hole dimension (\varnothing x L, mm) : 29.8 x 94 | Hole bottom type : Conical
- Max. height for tube fit (mm) : 123
- Supplied with a lid and an O-ring inserted





















| Tube |  |  |  |  |  |  |
|------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Tube capacity (mL) | 15 mL conical | 25 mL conical | 25 mL conical | 30 | 50 | 50 mL conical |
| Tube Dimension (Φ x L, mm) | 17 x 120 | 28.8 x 83 | 28.8 x 78.5 | 25.7 x 101.4 | 29 x 108 | 29.5 x 118 |
| Adapter |  |  |  |  |  | None |
| Cat No. | GAS-c15(c50) | GAS-c25(c50) | GAS-c25(c50) | GAS-30(c50) | GAS-50(c50) | - |
| Adaptor hole dimension (Φ x L, mm) | 17 x 105 | 27.1 x 14.1 | 27.1 x 14.1 | 26 x 83.8 | 27.9 x 11 | - |
| Adaptor hole bottom type | Conical | Conical | Conical | Round | Round | - |
| Max. radius (mm)* | 106.9 | 93.4 | 93.4 | 106.4 | 107.1 | 110.1 |
| Max. RCF (g-force)* | 8,635 | 7,544 | 7,544 | 8,595 | 8,651 | 8,893 |

Fixed Angle Rotor, GRF-M-50/c15-4/4

- Capacity : 4 x 50 mL plus 4 x 15 mL Conical
- Max. RPM / RCF 8.500 / (9,144; 8,293)
- Hole angle from axis during rotation : $\leq 30^\circ$
- Hole dimension (\varnothing x L, mm) : 29.8 x 93.5 / 17.2 x 93.5
- Hole bottom type : Flat for 50 mL / Conical for 15 mL
- Max. height for tube fit (mm) : 123
- Supplied with a lid and an O-ring inserted










| Tube |  |  |  |  |  |  |  |  |  |  |
|------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Tube capacity (mL) | 5 | 5 | 14 mL | 15 mL conical | 25 mL conical | 25 mL conical | 30 | 50 | 50 mL conical | 50 mL conical (skirted) |
| Tube Dimension (Φ x L, mm) | 16 x 59 | 16 x 67 | 15.7 x 96 | 17 x 120 | 28.8 x 83 | 28.8 x 78.5 | 25.7 x 101.4 | 29 x 108 | 29.5 x 118 | 29.5 x 118 |
| Adapter |  |  |  | None |  |  |  |  |  | None |
| Cat No. | GAS-c5(c15) | GAS-c5(c15) | GAS-14(c15) | - | - | - | - | - | - | - |
| Adaptor hole dimension (Φ x L, mm) | 14.8 x 20 | 14.8 x 20 | 16 x 7.8 | - | 27.1 x 14.1 | 27.1 x 14.1 | 26 x 86.5 | 29.5 x 14 | 29.5 x 17.5 | - |
| Adaptor hole bottom type | Conical | Conical | Round | - | Conical | Conical | Round | Round | Conical | - |
| Max. radius (mm)* | 80.1 | 80.1 | 92.5 | 102 | 88.9 | 88.9 | 103.3 | 104 | 104 | 113.2 |
| Max. RCF (g-force)* | 6,470 | 6,470 | 7,472 | 8,239 | 7,181 | 7,181 | 8,344 | 8,401 | 8,401 | 9,144 |

Fixed Angle Rotor, GRF-M-c15-12

- Capacity : 12 x 15 mL Conical | Max. RPM / RCF : 8,500 / 8,611
- Hole angle from axis during rotation : $\angle 30^\circ$ | Hole dimension ($\varnothing \times L$, mm) : 17.2 x 96.5
- Hole bottom type : Conical | Max. height for tube fit (mm) : 125
- Supplied with a lid and an O-ring inserted





| Tube |  |  |  |  |
|-----------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Tube capacity (mL) | 5 | 5 | 14 mL | 15 mL conical |
| Tube Dimension ($\Phi \times L$, mm) | 16 x 59 | 16 x 67 | 15.7 x 96 | 17 x 120 |
| Adapter |  |  |  | None |
| Cat No. | GAS-c5(c15) | GAS-c5(c15) | GAS-14(c15) | - |
| Adaptorhole dimension ($\Phi \times L$, mm) | 14.8 x 20 | 14.8 x 20 | 16 x 7.8 | - |
| Adaptor hole bottom type | Conical | Conical | Round | - |
| Max. radius (mm)* | 84.7 | 84.7 | 97.1 | 106.6 |
| Max. RCF (g-force)* | 6,842 | 6,842 | 7,843 | 8,611 |

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

- Capacity : 20 x 5.0 mL | Max. RPM / RCF : 13,000 / 20,595
- Hole angle from axis during rotation : $\angle 45^\circ$ | Hole dimension ($\varnothing \times L$, mm) : 17 x 53
- Hole bottom type : Conical | Max. height for tube fit (mm) : 68
- Supplied with a lid and two V-rings inserted










| Tube |  |  |
|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Tube capacity (mL) | 5 | 5 |
| Tube Dimension ($\Phi \times L$, mm) | 16 x 59 | 16 x 67 |
| Max. radius (mm) | 109 | 109 |
| Max. RCF (g-force) | 20,595 | 20,595 |

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

- Capacity : 48 x 1.5/2.0 mL (24 outer, 24 inner) | Max. RPM / RCF : 13,000 / 18,479
- Hole angle from axis during rotation : $\angle 45^\circ$ | Hole dimension ($\varnothing \times L$, mm) : 11.1 x 39
- Hole bottom type : Round | Max. height for tube fit (mm) : 52
- Supplied with a lid and two V-rings inserted



| Tube |  |  |  |  |  |
|-----------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Tube capacity (mL) | 0.2 | 0.5 | 1.5/2.0 | 2.0 mL filter tube | 2.0 mL screw cap |
| Tube Dimension ($\Phi \times L$, mm) | 6 x 8 | 8 x 30 | 11 x 38 | 11 x 38 | 10.1 x 46 |
| Adapter |  |  | None | None | None |
| Cat No. | GAS-m0.2(2) | GAS-m0.5(2) | - | - | - |
| Adaptorhole dimension ($\Phi \times L$, mm) | 6.5 x 23 | 8 x 31 | - | - | - |
| Adaptor hole bottom type | Open | Open | - | - | - |
| Max. radius (mm)* | Inner : 67 Outer : 80.5 | Inner : 73 Outer : 87.5 | Inner : 84.3 Outer : 97.8 | Inner : 84.3 | Inner : 84.3 Outer : 97.8 |
| Max. RCF (g-force)* | Inner : 12,659 Outer : 15,210 | Inner : 13,793 Outer : 16,532 | Inner : 15,928 Outer : 18,479 | Inner : 15,928 | Inner : 15,928 Outer : 18,479 |







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

Bio-Safe

Porton Down Certified

- Capacity : 24 x 1.5/2.0 mL
- Max. RPM / RCF : 18,000 / 30,536
- Hole angle from axis during rotation : $\angle 45^\circ$
- Hole dimension (\varnothing x L, mm) : 11.1 x 39
- Hole bottom type : Round
- Max. height for tube fit (mm) : 52
- Supplied with a lid and two V-rings inserted





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|------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Tube | | | | |
| Tube capacity (mL) | 0.2 | 0.5 | 1.5/2.0 | 2.0 mL screw cap |
| Tube Dimension (Φ x L, mm) | 6 x 8 | 8 x 30 | 11 x 38 | 10.1 x 46 |
| Adapter |  |  | None | None |
| Cat No. | GAS-m0.2(2) | GAS-m0.5(2) | - | - |
| Adaptor hole dimension (Φ x L, mm) | 6.5 x 23 | 8 x 31 | - | - |
| Adaptor hole bottom type | Open | Open | - | - |
| Max. radius (mm)* | 67 | 73 | 84.3 | 84.3 |
| Max. RCF (g-force)* | 24,270 | 26,443 | 30,536 | 30,536 |

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

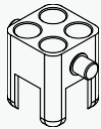
- Capacity : 8 x 8-Tube PCR strips, 64 x 0.2 mL
- Max. RPM / RCF : 12,500 / 11,722
- Hole angle from axis during rotation : $\angle 45^\circ$
- Hole dimension (\varnothing x L, mm) : 6.5 x 16
- Hole bottom type : Round
- Max. height for tube fit (mm) : 25
- Supplied with a lid and two V-rings inserted



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|----------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Tube | | |
| Tube capacity (mL) | 0.2 | 8-Strip tube |
| Tube dimension (Φ x L, mm) | 6 x 8 | 6 x 8 |
| Max. radius (mm) | Inner 58.6 Outer 67.1 | Inner 58.6 Outer 67.1 |
| Max. RCF (g-force) | Inner 10,237 Outer 11,722 | Inner 10,237 Outer 11,722 |







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

- 6 loadings | Max. Capacity : 6 x 4 x 1.5/2.0 mL
- Max. RPM / RCF : 13,000 / 16,438
- Hole angle from axis during rotation : $\angle 90^\circ$
- Supplied with two V-rings inserted six buckets and a lid included



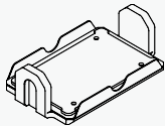
Microtube 1.5/2.0 mL
Quadruple Bucket,
GLB-m2.0-4(16)

Max. Capacity : 4 x 1.5/2.0 mL
Max. RPM / RCF : 13,000 / 16,438
Hole dimension ($\Phi \times L$, mm) : 11.1 x 19
Hole bottom type : Open
Max. height for tube fit (mm) : 50

| |  |  |  |  |
|------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Tube | | | | |
| Tube capacity (mL) | 0.2 | 0.5 | 1.5/2.0 | 2.0 mL screw cap |
| Tube Dimension ($\Phi \times L$, mm) | 6 x 8 | 8 x 30 | 11 x 38 | 10.1 x 46 |
| Adapter |  |  | None | None |
| Cat No. | GAS-m0.2(2) | GAS-m0.5(2) | - | - |
| Adaptor hole dimension ($\Phi \times L$, mm) | 6.5 x 23 | 8 x 31 | - | - |
| Adaptor hole bottom type | Open | Open | - | - |
| Max. radius (mm) | 70 | 78 | 87 | 87 |
| Max. RCF (g-force) | 13,226 | 14,737 | 16,438 | 16,438 |


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

- 2 loadings | Capacity : 2 MTP
- Max. RPM / RCF : 5,750 / 3,050
- Angle from axis during rotation : $\angle 90^\circ$
- Two plate holders and a lid



Microplate Holder Bucket,
GLP-mw(mw-2)

Max. RPM / RCF : 5,750 / 3,050
Max. Radius (mm) : 82.5
Hole dimension (w x d x h, mm) : 86.5 x 128.5
Max. height for tube fit (mm) : 36

| |  |
|----------------------------------------|-------------------------------------------------------------------------------------|
| Tube | |
| Tube capacity (mL) | MTP |
| Tube Dimension ($\Phi \times L$, mm) | 86 x 128 x 15 |
| Bucket capacity (ea / 2) | 2 / 4 |
| Max. radius (mm) | 82.5 |
| Max. RCF (g-force) | 3,050 |