

Multi-purpose Centrifuge

Combi R515

- Real multi-purpose centrifuge for using both fixed angle and swing-out rotors
- Robust and practical benchtop design
- For up to 15,000 rpm (24,000 xg) with 6 x 85 mL
- Large capacity swing-out rotor for 4 x 500 mL up to 4,500 rpm (4,300 xg)
- A variety of tube adaptors to be fit into 750 mL and 500 mL swing buckets
- Automatic rotor identification
- Imbalance cutoff and tracking
- Intuitive and easy control and extensively informative display
- Smoothly working, motorized lid opening and closure
- Cooled using CFC free, environmental friendly refrigerant
- Excellent temperature control
- Drainage from the chamber hole of refrigerated models could be cleaned daily
- Password lock function



S750-4 / B750 & TM96



S500-4 / B500 & TM96



A50-8



A0.2-48

Multi-purpose Centrifuges

Combi R515 / Combi 508

Multi-purpose Centrifuge

Combi 508

- Compact benchtop, multi-purpose centrifuge
- Ideal for routine usage of 4 x 750 mL swing-out centrifugation
- Very quiet and static operation with BLDC motor
- A variety of tube adaptors could be fitted into the 750 mL and 500 mL swing buckets
- Automatic rotor identification
- Imbalance cutoff and tracking
- Intuitive and easy control and extensive and informative display
- Smoothly working, motorized lid opening and closure



Unique air flow structure for effective noise reduction and excellent cooling



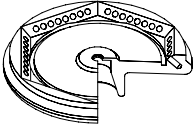
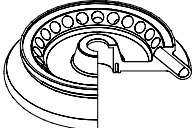




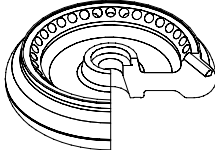




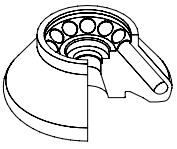
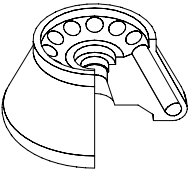
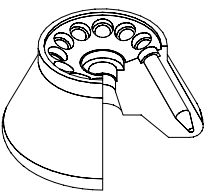
Technical Specifications

| | | Combi R515 / *Combi 514R | Combi 508 / *Combi 408 |
|-----------------------------|------------------------|-------------------------------------|------------------------|
| Speed RCF (xg) | Max. RPM / Fixed angle | 15,000 rpm | 8,000 rpm |
| | Max. RCF / Fixed angle | 26,664 xg | 8,279 xg |
| | Max. RPM / Swing-out | 4,500 rpm | 4,000 rpm |
| | Max. RCF / Swing-out | 4,392 xg | 3,515 xg |
| Max. capacity | Fixed angle | 6 x 250 mL, 36 x 1.5/2.0 mL | 6 x 85 mL |
| | Swing-out | 4 x 750 mL, 76 x 15 mL, 4 MTPs | 4 x 750 mL |
| ACC/DEC ramps | | 10/10 steps | |
| Temperature range | | -10°C to 40°C | - |
| Time control | | < 100 hr, pulse, continuous | < 2 hr, continuous |
| Program memory | | 100 | |
| Noise level | | ≤ 65 dB | ≤ 65 dB |
| Imbalance cutoff / tracking | | Yes / Yes | Yes / Yes |
| Rotor identification | | Automatic | Automatic |
| Dimension (W x D x H, mm) | | 723 x 665 x 387 | 530 x 676 x 400 |
| Weight without rotor | | 95 kg | 61 kg |
| Power consumption | | 2.5 kVA | 1.0 kVA |
| Power input (V, Hz) | | 210V~240V, 50/60 Hz (110V optional) | |
| Cat. No. | | CB-R515 | CB-508 |

* Registered as medical device at MFDS¹⁾

¹⁾ MFDS : Ministry of Food and Drug Safety (KOREA)

Fixed Angle Rotors for Combi Series (1)

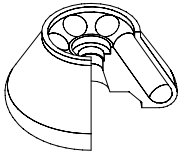










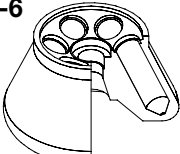

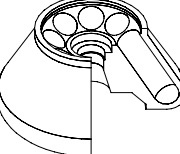










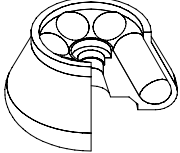


















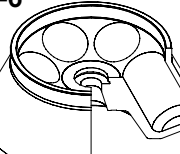

| Rotor | Adaptable Centrifuge | Tube Capacity Bottom Type | Required Adaptor | Bore Ø x L (mm) Radius (mm) | Max. RPM (rpm) Max. RCF (xg) | |
|--|----------------------|---------------------------------|------------------|---|------------------------------|------------------|
| A0.2-48  Hole angle : ∠45° Max. Capacity : 48 x 0.2 mL Size (ø x H) : ø200 x 56 mm Incl. a coupling bolt lid | Combi 514R | 0.2 mL - | - | 6.5 x 17 88.9 | 12,500 15,530 | |
| | | 0.2 mL PCR strip | - | | | |
| | Combi 408 | 0.2 mL - | - | 6.5 x 17 88.9 | 8,000 6,361 | |
| | | 0.2 mL PCR strip | - | | | |
| A2.0-24  Hole angle : ∠40° Max. Capacity : 24 x 1.5/2.0 mL Size (ø x H) : ø202 x 79 mm Max. height for tube fit : 46 mm Incl. a coupling bolt lid | Combi 514R | 1.5/2.0 mL - | - | 11.5 x 38 80.8 | 15,000 20,325 | |
| | | 0.5 mL - | TR0.5 |  | 8 x 37 76.5 | 15,000 19,244 |
| | | 0.2 mL - | TR0.2 |  | 6 x 21 67 | 15,000 16,854 |
| | Combi 408 | 1.5/2.0 mL - | - | - | 11.5 x 38 80.8 | 8,000 5,781 |
| | | 0.5 mL - | TR0.5 |  | 8 x 37 76.5 | 8,000 5,473 |
| | | 0.2 mL - | TR0.2 |  | 6 x 21 67 | 8,000 4,795 |
| A2.0-36  Type : Fixed Angle Rotor 30° Max. Capacity : 36 x 1.5/2.0 mL Size (ø x H) : ø240 x 64 mm Max. height for tube fit : 49 mm Incl. a coupling bolt lid | Combi 514R | 1.5/2.0 mL Micro-filter tube | - | 11.5 x 38 115.7 | 14,000 25,353 | |
| | | 0.5 mL | TR0.5 |  | 8 x 37 111 | 14,000 24,323 |
| | | 0.2 mL | TR0.2 |  | 6 x 21 100 | 14,000 21,913 |
| | Combi 408 | 1.5/2.0 mL Micro-filter tube | - | - | 11.5 x 38 115.7 | 8,000 8,279 |
| | | 0.5 mL | TR0.5 |  | 8 x 37 111 | 8,000 7,942 |
| | | 0.2 mL | TR0.2 |  | 6 x 21 100 | 8,000 7,155 |
| A10-12  Hole angle : ∠36° Max. Capacity : 12 x 10 mL Size (ø x H) : ø179.9 x 82 mm Max. height for tube fit : 87.1 mm Incl. a coupling bolt lid | Combi 514R | 10 mL Round | - | 16.3 x 74.5 85.1 | 15,000 21,407 | |
| | Combi 408 | | | | 8,000 6,089 | |
| A15-12  Hole angle : ∠30° Max. Capacity : 12 x 15 mL Size (ø x H) : ø222.7 x 106 mm Max. height for tube fit : 121 mm Incl. a coupling bolt lid | Combi 514R | 15(16) mL Round | - | 17 x 96 106 | 15,000 26,664 | |
| | Combi 408 | | | | 8,000 7,585 | |
| A15c-12  Hole angle : ∠25° Max. Capacity : 12 x 15 mL conical Size (ø x H) : ø215 x 121 mm Max. height for tube fit : 123.2 mm Incl. a coupling bolt lid | Combi 514R | 15 mL Conical | - | 17 X 115 99.4 | 15,000 25,004 | |
| | Combi 408 | | | | 8,000 7,105 | |

* Radius : From the center of the rotor to the inner end of tube carrier.

Multi-purpose Centrifuges

Combi R515 / Combi 508

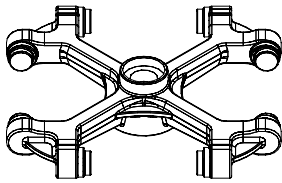
Fixed Angle Rotors for Combi Series (2)

| Rotor | Adaptable Centrifuge | Tube Capacity Bottom Type | Required Adaptor | Bore Ø x L (mm) Radius (mm) | Max. RPM (rpm) Max. RCF (xg) |
|--|----------------------|---|---|-----------------------------|------------------------------|
| A50-6  Hole angle : $\angle 30^\circ$ Max. Capacity : 6 x 50 mL Size (ø x H) : ø200 x 109 mm Max. height for tube fit : 122.7 mm Incl. a coupling bolt lid | Combi 514R |  50 mL Round | - | 29 x 100 96.1 | 15,000 24,174 |
| | |  15 mL Round | TR15(50)  | 17 x 94 89.9 | 15,000 22,614 |
| | |  15 mL Conical | TR15c(50)  | 17 x 105 91 | 15,000 22,891 |
| | Combi 408 |  50 mL Round | - | 29 x 100 96.1 | 8,000 6,876 |
| | |  15 mL Round | TR15(50)  | 17 x 94 89.9 | 8,000 6,433 |
| | |  15 mL Conical | TR15c(50)  | 17 x 105 91 | 8,000 6,511 |
| A50c-6  Hole angle : $\angle 23^\circ$ Max. Capacity : 6 x 50 mL conical Size (ø x H) : ø205.7 x 119 mm Max. height for tube fit : 118.1 mm Incl. a coupling bolt lid | Combi 514R |  50 mL Conical | - | 30 x 108.6 91 | 15,000 22,891 |
| | Combi 408 | | | | 8,000 6,511 |
| A50-8  Hole angle : $\angle 30^\circ$ Max. Capacity : 8 x 50 mL Size (ø x H) : ø213 x 110.7 mm Max. height for tube fit : 110.7 mm Incl. a coupling bolt lid | Combi 514R |  50 mL Round | - | 29 x 100 98.9 | 15,000 24,878 |
| | |  15 mL Round | TR15(50)  | 17 x 94 92.8 | 15,000 23,344 |
| | |  15 mL Conical | TR15c(50)  | 17 x 105 93.9 | 15,000 23,621 |
| | Combi 408 |  50 mL Round | - | 29 x 100 98.9 | 8,000 7,077 |
| | |  15 mL Round | TR15(50)  | 17 x 94 92.8 | 8,000 6,640 |
| | |  15 mL Conical | TR15c(50)  | 17 x 105 93.9 | 8,000 6,719 |
| A85-6  Hole angle : $\angle 25^\circ$ Max. Capacity : 6 x 85 mL Size (ø x H) : ø209.1 x 112 mm Max. height for tube fit : 115.4 mm Incl. a coupling bolt lid | Combi 514R |  85 mL Round | - | 38.3 x 95 97.6 | 15,000 24,551 |
| | |  50 mL Round | TR50(85)  | 29 x 95 92.9 | 15,000 23,369 |
| | |  50 mL Conical | TR50c(85)  | 29.5 x 100 93 | 15,000 23,394 |
| | |  15 mL Round | TR15(85)  | 17 x 94 89 | 15,000 22,388 |
| | |  15 mL Conical | TR15c(85)  | 17 x 100 89.2 | 15,000 22,438 |
| | Combi 408 |  85 mL Round | - | 38.3 x 95 97.6 | 8,000 6,983 |
| | |  50 mL Round | TR50(85)  | 29 x 95 92.9 | 8,000 6,647 |
| | |  50 mL Conical | TR50c(85)  | 29.5 x 100 93 | 8,000 6,654 |
| | |  15 mL Round | TR15(85)  | 17 x 94 89 | 8,000 6,368 |
| | |  15 mL Conical | TR15c(85)  | 17 x 100 89.2 | 8,000 6,382 |
| A250-6  Hole angle : $\angle 25^\circ$ Max. Capacity : 6 x 250 mL Size (ø x H) : ø295.6 x 147.8 mm Max. height for tube fit : 132 mm Incl. a coupling bolt lid | Combi 514R |  250 mL Round | - | 62 x 103 138.3 | 8,000 9,896 |

* Radius : From the center of the rotor to the inner end of tube carrier.

Swing-out Rotors for Combi Series

S750-4



∠90°
 Max. RPM : 4,000 rpm
 Size (W x D x H)
 : 277 x 277 x 55 mm

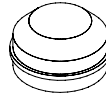
Bucket/Adaptor for S750-4



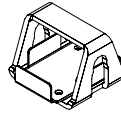
Round Bucket
B750S
 Capacity : 750 mL
 * Cap Available (optional)



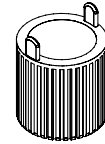
Round Bucket
B750
 Capacity : 750 mL



Cap
BL750



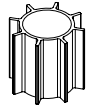
MicroTiter Plate Rack
TM96 (750-4)



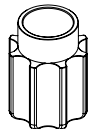
Adaptor
TR500 (750)



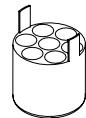
Adaptor
TR500c (750)



Adaptor
TR250 (750)



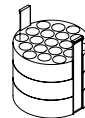
Adaptor
TR250c (750)



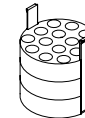
Adaptor
TR50-7



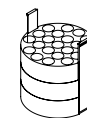
Adaptor
TR50c-5



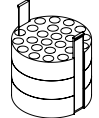
Adaptor
TR15-19



Adaptor
TR15c-14

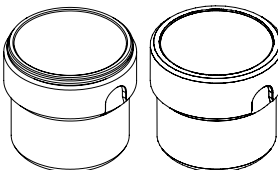
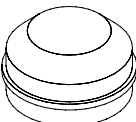





















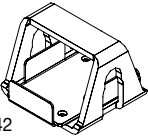



Adaptor
TR10-21



Adaptor
TR5-24

Buckets and Tube Racks of S750-4

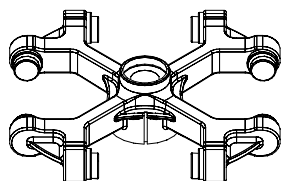
| Bucket | Required Adaptor | Tube Capacity Bottom Type | Tube per Adaptor / Rotor | Bore (Ø x L, mm) | Max. height for tube fit (mm) | | Max. RPM (rpm) Max. RCF (xg) |
|---|--|--|-----------------------------|--------------------------------------|----------------------------------|---------|---------------------------------|
| | | | | | w/ cap | w/o cap | |
| B750S / B750  BL750  Radius : 196.5 mm Bucket bore (ø x L, mm) : 99 x 103 Max. height for tube fit : 142 mm (w/ cap), 157.5 mm (w/o cap) | - |  750 mL Flat | 1 / 4 | 99 x 103 | 142 | 158.5 | 4,000 3,515 |
| | TR500(750)  |  500 mL Flat | 1 / 4 | 75.5 x 98.7 | 138.2 | 150.6 | 4,000 3,458 |
| | TR500c(750)  |  500 mL Conical | 1 / 4 | 99 x 58 | 140.2 | 152.5 | 4,000 3,515 |
| | TR250(750)  |  250 mL Flat | 1 / 4 | 62.3 x 87 | 137.5 | 146.7 | 4,000 3,443 |
| | TR250c(750)  |  250 mL Conical | 1 / 4 | 60.5 x 124.4 | 138 | 148.1 | 4,000 3,452 |
| | TR50-7  |  50 mL Round | 7 / 28 | 29.2 x 97 | 129.1 | 135.3 | 4,000 3,443 |
| | TR50c-5  |  50 mL Conical | 5 / 20 | 29 x 91 | 125.1 | 131.2 | 4,000 3,515 |
| | TR15-19  |  15 mL Round | 19 / 76 | 17.2 x 87 | 123.7 | 129.8 | 4,000 3,443 |
| | TR15c-14  |  15 mL Conical | 14 / 56 | 17 x 89 | 125.5 | 131.6 | 4,000 3,479 |
| | TR10-21  |  10 mL Round | 21 / 84 | 16 x 87 | 123.9 | 130 | 4,000 3,443 |
| | TR5-24  |  3 mL / 5 mL Round | 24 / 96 | 13.2 x 60 (3 mL) 13.2 x 87 (5 mL) | 123.2 | 129.3 | 4,000 3,443 |
| TM96(750-4) Radius : 163.5 mm MTP holder size (w x d x L, mm) : 88 x 128.5 x 42 Max. height for tube fit : 88 x 128.5 x 42 mm |  |  MTP | 1 / 4 | 88 x 128.5 x 42 | | | 129.3 |

* Radius : From the center of the rotor to the inner end of tube carrier.

Multi-purpose Centrifuges

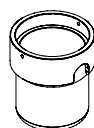
Combi R515 / Combi 508

S500-4



∠90°
 Max. RPM : 4,500
 Size (W x D x H)
 : 262 x 262 x 55 mm

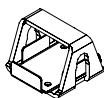
Bucket/Adaptor for S500-4



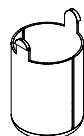
Round Bucket
B500
 Capacity : 500 mL
 * Cap included



Cap
BL500



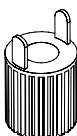
MicroTiter Plate Rack
TM96
(500-4)



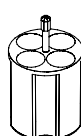
Adaptor
TR500
(500)



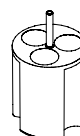
Adaptor
TR250
(500)



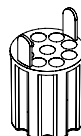
Adaptor
TR100
(500)



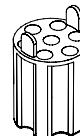
Adaptor
TR50-4



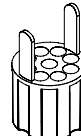
Adaptor
TR50c-3



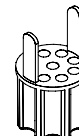
Adaptor
TR15-9



Adaptor
TR15c-7



Adaptor
TR10-9



Adaptor
TR5-9

Buckets and Tube Racks of S500-4

| Bucket | Required Adaptor | Tube Capacity Bottom Type | Tube per Adaptor / Rotor | Bore (Ø x L, mm) | Max. height for tube fit (mm) | | Max. RPM (rpm) Max. RCF (xg) |
|---|------------------|------------------------------|-----------------------------|---------------------|----------------------------------|---------|---------------------------------|
| | | | | | w/ cap | w/o cap | |
| Radius : 194 mm Bucket bore (ø x L, mm) : 80 x 111 Max. height for tube fit : 143.5 mm (w/ cap), 157.2 mm (w/o cap) Incl. a cap Combi R515 Max. RPM : 4,500 Max. RCF : 4,392 xg Combi 508 Max. RPM : 4,000 Max. RCF : 3,435 xg | TR500(500) | 500 mL Flat | 1 / 4 | 73 x 125 | 141.5 | 143.6 | 4,500 4,347 |
| | TR250(500) | 250 mL Flat | 1 / 4 | 62 x 100 | 135 | 146.6 | 4,500 4,290 |
| | TR100(500) | 100 mL (85 mL) Round | 1 / 4 | 38.5 x 84.5 | 139 | 150.9 | 4,500 4,290 |
| | TR50-4 | 50 mL Round | 4 / 16 | 29.5 x 85.5 | 129 | 140.6 | 4,500 4,290 |
| | TR50c-3 | 50 mL Conical | 3 / 12 | 30 x 90 | 128.3 | 140 | 4,500 4,302 |
| | TR15-9 | 15 mL Round | 9 / 36 | 16.5 x 85 | 132.1 | 146.8 | 4,500 4,290 |
| | TR15c-7 | 15 mL Conical | 7 / 28 | 17 x 95.5 | 128.4 | 140.1 | 4,500 4,313 |
| | TR10-9 | 10 mL Round | 9 / 36 | 17 x 64 | 132.9 | 144.6 | 4,500 4,279 |
| | TR5-9 | 5 mL Round | 9 / 36 | 13 x 64 | 133.8 | 145.5 | 4,500 4,256 |
| TM96(500-4) Radius : 154 mm MTP holder size (w x d x L, mm) : 87 x 128.5 x 53 Max. height for tube fit : 87 x 128.5 x 53 mm | | MTP | 1 / 4 | - | 87 x 128.5 x 53 | | 145.5 |

* Radius : From the center of the rotor to the inner end of tube carrier.