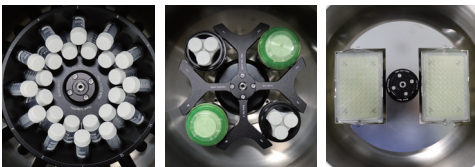


## Multi-purpose Centrifuge

# T04B / T05R

- Multipurpose table-top centrifuge
- Usage of 10 x 50 mL conical tubes for fixed angle rotors and 8 x 50 mL conical tubes for swing-out rotors
- Process up to 32 vacutainer tubes
- Offers up to 7 optional rotors including 2 x 2 microplates
- Outstanding sample separations with 9 acceleration and 10 deceleration ramps
- Selectable time counting mode of “from starting” or “At set speed”
- Simplified operation with numeric key buttons
- Up to 100 different routine protocols can be stored in program memory and easily retrieved.
- Quiet performance promotes a safe and stress-free environment.
- Easy-to-clean stainless steel chamber and UV resistance exterior
- Outstanding safety and durability with two layers of steel lid
- Lid drop protection allows easiness and safety when loading or unloading samples.
- Low access height for easy loading and unloading of samples
- Selectable key lock function to prevent accidental parameter changes
- Fast cool function for fast pre-cooling (T05R only)



AO/A\*-15-24    SO/S\*-100-4    SO/S\*-mw-2

\*\*AO/SO are for T04B  
A/S are for T05R



T04B



T05R

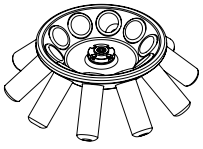












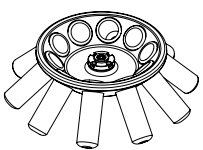











# Micro Centrifuges

T04B / T05R / Combi 508 / Combi R515

## Technical Specifications

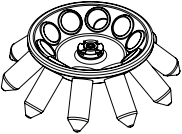










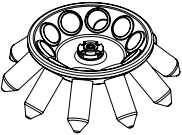









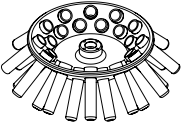










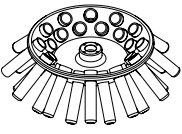









		T04B / T04B-md*	T05R / T05R-md*
Speed	Max. RPM (Fixed angle)	4,000 rpm	5,000 rpm
	Max. RCF (Fixed angle)	2,773 xg	3,983 xg
	Max. RPM (Swing-out)	4,000 rpm	5,000 rpm
	Max. RCF (Swing-out)	2,774 xg	4,218 xg
Max. capacity	Fixed angle	10 x 50 mL	10 x 50 mL
	Swing-out	4 x 100 mL	4 x 100 mL
ACC/DEC	ACC / DCC ramps	9 / 10 steps	9 / 10 steps
Temperature	Temperature range		-10 °C ~ 40 °C
	Fast cool	-	Yes
Time	Time control	< 10 hr, Pulse, or Continuous	< 100 hr, Pulse, or Continuous
	Time counting	Selectable, "at set speed" or "from starting"	Selectable, "at set speed" or "from starting"
Program memory		100	100
Noise level		< 60 dB	< 60 dB
Imbalance cutoff		Yes	Yes
Rotor identification		-	Automatic
Dimension (W x D x H, mm)		375 x 507 x 265	584 x 554 x 313
Weight		25.7 kg	65.7 kg
Power requirement		340 VA	900 VA
Power input (V,Hz)		210 V ~ 240 V, 50/60 Hz (110 V optional)	210 V ~ 240 V, 50/60 Hz (110 V optional)
Cat. No.		T04B / T04B-md	T05R / T05R-md

## Fixed Angle Rotors for T Series (1)

Rotor	Sleeve	Adaptable Centrifuge	Tube Capacity Bottom Type	Required Adaptor	Bore Ø x L (mm) Radius (mm)	Max. RPM (rpm) Max. RCF (xg)
<b>AO-50-10</b>  Max. RPM : 4,000 rpm Hole angle : ∠45° Max. Capacity : 10 x 50 mL or 50 mL Conical Size (ø x H) : ø197 x 59 mm	<b>B50-SS</b> 	<b>T04B</b>	 50 mL Round/Skirt -		30.2 x 94 142.5	4,000 2,549
			 50mL Conical <b>TR50c(50f)</b> 		29.5 x 17.5 142.5	4,000 2,549
			 30mL Round <b>TR30(50f)</b> 		26 x 86.5 135	4,000 2,415
			 25mL Conical <b>TR25c(50f)</b> 		28.8 x 14.1 115	4,000 2,057
			 15 mL Round/Conical <b>TR15(50f)</b> 		17.2 x 87 141.9	4,000 2,538
			 14mL Round <b>TR14(50f)</b> 		17.2 x 75 141.9	4,000 2,538
<b>A-50-10</b>  Max. RPM : 5,000 rpm Hole angle : ∠45° Max. Capacity : 10 x 50 mL or 50 mL Conical Size (ø x H) : ø197 x 66.5 mm	Hole dimension (Ø x L,mm) : 30.2 x 94 Max. height for tube fit : 130	<b>T05R</b>	 50 mL Round/Skirt -		30.2 x 94 142.5	5,000 3,983
			 50mL Conical <b>TR50c(50f)</b> 		29.5 x 17.5 142.5	5,000 3,983
			 30mL Round <b>TR30(50f)</b> 		26 x 86.5 135	5,000 3,773
			 25mL Conical <b>TR25c(50f)</b> 		28.8 x 14.1 115	5,000 3,214
			 15 mL Round/Conical <b>TR15(50f)</b> 		17.2 x 87 141.9	5,000 3,966
			 14mL Round <b>TR14(50f)</b> 		17.2 x 75 141.9	5,000 3,966

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

## Fixed Angle Rotors for T Series (2)

Rotor		Sleeve	Adaptable Centrifuge	Tube Capacity Bottom Type	Required Adaptor	Bore Ø x L (mm) Radius (mm)	Max. RPM (rpm) Max. RCF (xg)
<b>AO-50c-10</b>   Max. RPM : 4,000 rpm Hole angle : ∠45° Max. Capacity : 10 x 50 mL or 50 mL Conical Size (ø x H) : ø197 x 59 mm	<b>B50c-SS</b>  	<b>T04B</b>	 50 mL Conical	-	30.2 x 99 140	4,000 2,508	
			 50mL Round	<b>TR50(50c)</b> 	29 x 11 136.1	4,000 2,435	
			 30mL Round	<b>TR30(50c)</b> 	26 x 83.8 135.5	4,000 2,424	
			 25mL Conical	<b>TR25c(50c)</b> 	28.8 x 14.1 115	4,000 2,057	
			 15 mL Conical	<b>TR15c(50c)</b> 	17.2 x 105 139.6	4,000 2,497	
<b>A-50c-10</b>   Max. RPM : 5,000 rpm Hole angle : ∠45° Max. Capacity : 10 x 50 mL or 50 mL Conical Size (ø x H) : ø197 x 66.5 mm	Hole dimension (Ø x L,mm) : 30.2 x 94 Max. height for tube fit : 130	<b>T05R</b>	 50 mL Conical	-	29 x 11 136.1	5,000 3,804	
			 50mL Round	<b>TR50(50c)</b> 	26 x 83.8 135.5	5,000 3,787	
			 30mL Round	<b>TR30(50c)</b> 	28.8 x 14.1 115	5,000 3,214	
			 25mL Conical	<b>TR25c(50c)</b> 	17.2 x 105 139.6	5,000 3,902	
			 15 mL Conical	<b>TR15c(50c)</b> 	17.2 x 105 139.6	4,000 2,497	
<b>AO-15-24</b>   Max. RPM : 4,000 rpm Hole angle : ∠45° Max. Capacity : 24 x 15 mL Size (ø x H) : ø223 x 59 mm	<b>B15</b>  	<b>T04B</b>	 15mL	-	18 x 87 155	4,000 2,773	
			 14mL Round	<b>TR14(15f)</b> 	16.5 x 7 142.5	4,000 2,549	
			 5mL conical	<b>TR5c(15f)</b> 	16 x 20 121.3	4,000 2,170	
			 5mL Round	<b>TR5(15f)</b> 	13.5x85 152.8	4,000 2,733	
			 3mL Round	<b>TR3(15f)</b> 	13.5 x 61 132.3	4000 2,367	
<b>A-15-24</b>   Max. RPM : 4,500 rpm Hole angle : ∠45° Max. Capacity : 24 x 15 mL Size (ø x H) : ø223 x 59 mm	Hole dimension (Ø x L,mm) : 18 x 87 Max. height for tube fit : 125(120 for conical / wider cap)	<b>T05R</b>	 15mL	-	18 x 87 155	4,500 3,509	
			 14mL Round	<b>TR14(15f)</b> 	16.5 x 7 142.5	4,500 3,226	
			 5mL conical	<b>TR5c(15f)</b> 	16 x 20 121.3	4,500 2,746	
			 5mL Round	<b>TR5(15f)</b> 	13.5x85 152.8	4,500 3,459	
			 3mL Round	<b>TR3(15f)</b> 	13.5 x 61 132.3	4,500 2,995	

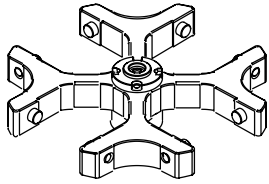
\* Radius : From the center of the rotor to the inner end of tube carrier.

# Micro Centrifuges

T04B / T05R / Combi 508 / Combi R515

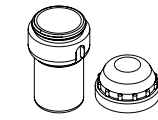
## Swing-out Rotors for T series

### SO/S-100-4

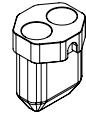


∠ 90°  
Max.RPM : 4,000rpm  
Size (Ø x H) : 206.3x 46 mm

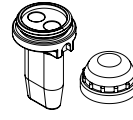
#### Bucket for SO/S-100-4



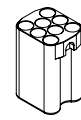
Round Bucket  
**BB100b-100**  
cap included



Conical Bucket  
**Bd50c-100**



Conical Bucket  
**BBd15cb-100**  
cap included



Bucket  
**BB100b-100**  
cap included

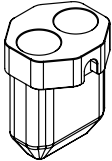









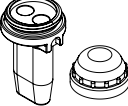





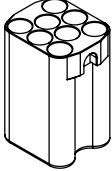









#### Buckets and Tube Racks of SO/S-100-4

Bucket	Required Adaptor	Tube Capacity Bottom Type	Tube per Adaptor / Rotor	Bore (Ø x L, mm)	Max. height for tube fit (mm)	T04B Max. RPM (rpm) Max. RCF (xg)	T05R Max. RPM (rpm) Max. RCF (xg)
  Radius : 155.1mm Bucket bore(Ø x L, mm) : 47 x 99 Max.height for tube fit : 120(w/ cap) / 130(w/o cap)	TR100(100)	100mL Round	1 / 4	44.2 x 93	125(w/o cap)	4,000 2,685	4,500 3,398
	TR85(100)	85mL Round	1 / 4	38.5 x 106	118	4,000 2,739	4,500 3,466
	TR50sc(100)	50mL Skirt	1 / 4	29.8 x 100	117	4,000 2,721	4,500 3,443
	TR50c(100)	50mL Conical	1 / 4	30 x 103	117	4,000 2,721	4,500 3,443
	TR50(100)	50mL Round	1 / 4	29.5 x 95.9	118	4,000 2,739	4,500 3,466
	TR30(100)	30mL Round	1 / 4	26 x 86	118	4,000 2,739	4,500 3,466
	TR25c(100)	25mL Conical	1 / 4	29.8 x 62	118	4,000 2,739	4,500 3,466
	TR15c(100)	15mL Conical	1 / 4	17.2 x 108	120	4,000 2,774	4,500 3,511
	TR15c-3(100)		3 / 12	17.2 x 108	130(w/o cap)	4,000 2,774	4,500 3,511
	TR15-3(100)	15mL Round	3 / 12	17.5 x 105	127(w/o cap)	4,000 2,721	4,500 3,443
	TR10-5(100)	10mL	5 / 20	16.1 x 60	115	4,000 2,685	4,500 3,398
	TR7-5(100)	7mL	5 / 20	13.5 x 60	115	4,000 2,685	4,500 3,398
	TR5c-3(100)	5mL Conical	3/12	17.2 x 52	75	4,000 1,965	4,500 2,493
	TR2-6(100)	1.5mL/ 2mL	6 / 24	11.1 x 39	115	4,000 2,685	4,500 3,398

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

# Multi-purpose Centrifuges

T04B / T05R / Combi 508 / Combi R515

Bucket	Required Adaptor	Tube Capacity Bottom Type	Tube per Adaptor / Rotor	Bore (Ø x L, mm)	Max. height for tube fit (mm)	T04B Max. RPM (rpm) Max. RCF (xg)	T05R Max. RPM (rpm) Max. RCF (xg)	
<b>Bd50c-100</b>   Radius : 155.1mm Bucket bore(Ø x L, mm) : 47 x 99 Max.height for tube fit : 120(w/ cap) / 130(w/o cap)	-	 50mL Conical	2/8		125	4,000 2,774	4,500 3,511	
	TR50(50c) 	 50mL Round			29 x 11	114.5	4,000 2,588	4,500 3,276
	TR30(50c) 	 30mL Round			26 x 83.8	114.5	4,000 2,592	4,500 3,280
	TR25c(50c) 	 25mL Conical			28.8 x 14.1	87	4,000 2,102	4,500 2,660
	TR15c(50c) 	 15mL Conical			17.2 x 105	125	4,000 2,774	4,500 3,511
<b>BB100b-100</b>   Radius : 155.1mm Bucket bore(Ø x L, mm) : 17 x 97.5 Max.height for tube fit : 120 (w/ cap) / 125 (w/o cap)	-	 15mL Conical	2/8		120	4,000 2,774	4,500 3,511	
	TR14(15c) 	 14mL Round			16 x 7.8	96	4,000 2,352	4,500 2,977
	TR5c(15c) 	 5mL Conical			16 x 20	62.4	4,000 1,746	4,500 2,210
<b>BB100b-100</b>   Radius : 152mm Bucket bore(Ø x L, mm) : 17 x 86 Max.height for tube fit : 125	-	 15mL/ 10mL VT	2/8	17 x 86	115	4,000 2,719	4,500 3,441	
	TR14(15f) 	 14mL Round	4/16	16.5 x 7	103.5	4,000 2,513	4,500 3,181	
	TR5c(15f) 	 5mL Conical	4/16	16 x 20	75	4,000 2,003	4,500 2,536	
	TR5(15f) 	 5mL	8/32	13.5 x 85	115	4,000 2,719	4,500 3,545	
	TR3(15f) 	 3mL	8/32	13.5 x 61	88	4,000 2,236	4,500 2,830	

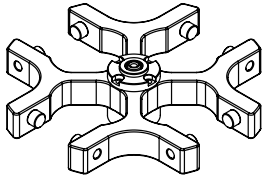
\* Radius : From the center of the rotor to the inner end of tube carrier.

# Micro Centrifuges

T04B / T05R / Combi 508 / Combi R515

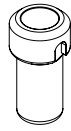
## Swing-out Rotors for T series

### SO/S-50-4

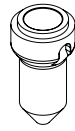


∠ 90°  
Max.RPM : 4,000rpm  
Size (Ø x H) : 206.3x 46 mm

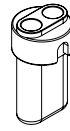
#### Bucket for SO/S-50-4



Round Bucket  
**B50-50**































Conical Bucket  
**B50c-50**



Conical Bucket  
**Bd15c-50**

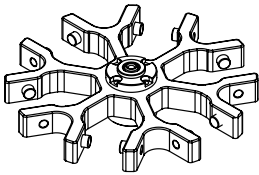
### Buckets and Tube Racks of SO/S-100-4

Bucket	Required Adaptor	Tube Capacity Bottom Type	Bore (Ø x L, mm)	Max. height for tube fit (mm)	T04B Max. RPM (rpm) Max. RCF (xg)	T05R Max. RPM (rpm) Max. RCF (xg)
<b>B50-50</b>   Radius : 150.9mm Bucket bore(Ø x L, mm) : 30.5 x 86 Max.height for tube fit : 125		 50mL Round/Skirt	30.5 x 86	125	4,000 2,700	5,000 4,218
	<b>TR50c(50f)</b> 	 50mL Conical	29.5 x 15.6	125	4,000 2,700	5,000 4,218
	<b>TR30(50f)</b> 	 30mL Round	26 x 86.5	118.5	4,000 2,583	5,000 4,036
	<b>TR25c(50f)</b> 	 25mL Conical	26.8 x 14.1	91.5	4,000 2,107	5,000 3,293
	<b>TR15(50f)</b> 	 15mL Round/Conical	17.2 x 87	125	4,000 2,700	5,000 4,218
	<b>TR14(50f)</b> 	 14mL Round	17.2 x 75	125	4,000 2,700	5,000 4,218
<b>B50c-50</b>   Radius : 150.9mm Bucket bore(Ø x L, mm) : 29.5 x 91.5 Max.height for tube fit : 125		 50mL Conical	29.5 x 91.5	125	4,000 2,700	5,000 4,218
	<b>TR50(50c)</b> 	 50mL Round	29 x 11	114.5	4,000 2,513	5,000 3,927
	<b>TR30(50c)</b> 	 30mL Round	26 x 83.8	114.5	4,000 2,517	5,000 3,933
	<b>TR25c(50c)</b> 	 25mL Conical	28.8 x 14.1	87	4,000 2,027	5,000 3,167
	<b>TR15c(50c)</b> 	 15mL Round/Conical	17.2 x 105	125	4,000 2,700	5,000 4,218
<b>Bd15c-50</b>   Radius : 150.9mm Bucket bore(Ø x L, mm) : 17 x 91.5 Max.height for tube fit : 120		 15mL Conical	17 x 91.5	120	4,000 2,700	5,000 4,218
	<b>TR14(15c)</b> 	 14mL Round	16 x 7.8	96	4,000 2,277	5,000 3,558
	<b>TR5c(15c)</b> 	 5mL Conical	16 x 20	62.5	4,000 1,671	5,000 2,611

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

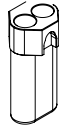
## Swing-out Rotors for T series

### SO/S-15-6









∠ 90°  
Max.RPM : 4,000rpm  
Size (Ø x H) : 198.2x 44 mm

#### Bucket for SO/S-15-6



Round Bucket  
**Bd15-15**

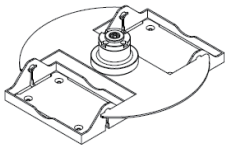
#### Buckets and Tube Racks of SO/S-15-6

Bucket	Required Adaptor	Tube Capacity Bottom Type	Tube per Adaptor / Rotor	Bore (Ø x L, mm)	Max. height for tube fit (mm)	T04B Max. RPM (rpm) Max. RCF (xg)	T05R Max. RPM (rpm) Max. RCF (xg)
<b>Bd15-15</b>  Radius : 153mm Bucket bore(Ø x L, mm) : 17 x 88 Max.height for tube fit : 122	-	 10mL/ 15mL	2/12	17 x 88	123	4,000 2,737	4,400 3,312
	<b>TR5(15f)</b> 	 5mL	2/12	13.5 x 85	123	4,000 2,737	4,400 3,312
	<b>TR3(15f)</b> 	 3mL	2/12	13.5 x 61	95	4,000 2,164	4,400 2,727

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

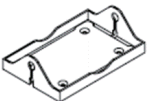
## Swing-out Rotors for T series

### SO/S-mw-2



∠ 90°  
Max.RPM : 4,000rpm  
Size (Ø x H) : 240x 46mm

#### Buckets and Tube Racks of SO/S-mw-2

Bucket	Tube Capacity	Tube per Adaptor / Rotor	Max. RPM (rpm) Max. RCF (xg)
<b>P-mw</b>  Radius : 111.8 size (w x d ,mm) : 86.5 x 128.5 Max. height for tube fit (mm) : 6	MTP/WP	1/2	4,000 2,000

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