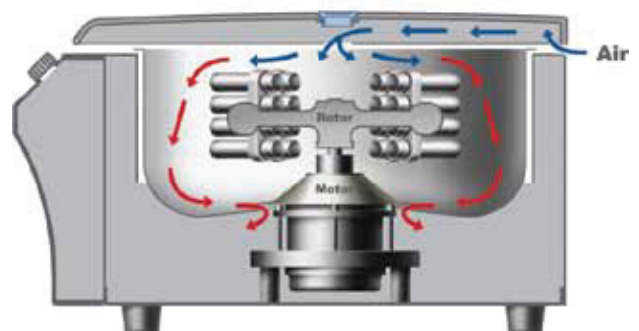


Clinical Centrifuges

Fleta 5

- Benchtop centrifuge for performing daily routine tasks in hospital, university, and laboratory
- Optimized swing-out separation up to 5,500 rpm (6,200 xg)
- Maximized flexibility with large assorted accessories for using tubes from micro to 50 mL
- Simple knob control for speed and time
- Rapid acceleration and deceleration (20/20 sec)
- Very quiet and static operation with BLDC motor
- Lid drop protected construction and fine control of lid opening
- Surface anodized aluminum chamber
- Robust design for daily use



Unique air flow structure for effective noise reduction and excellent cooling

Specification

* Registered as medical device at MFDS ¹⁾		Fleta 5 / *Fleta50P	Fleta 4 / *Fleta 40P
Speed RCF (xg)	Max. RPM / Fixed angle	-	4,000 rpm
	Max. RCF / Fixed angle	-	2,789 xg
	Max. RPM / Swing-out	5,500 rpm	4,000 rpm
	Max. RCF / Swing-out	6,230 xg	3,088 xg
Capacity	Max. capacity / Fixed angle	-	24 x 15 mL
	Max. capacity / Swing-out	32 x 15 mL	6 x 50 mL, 12 x 15 mL conical, 4 x 85 mL
ACC/DEC	ACC/DEC ramps	9/10 steps	9/10 steps
	Two step Deceleration	-	Yes
	Acc. time to max. speed	20/80 sec	43/139 sec
	Dec. time from max. speed	26/82 sec	34/183 sec
Time control		< 10 hr, continuous	< 100 min, pulse, continuous
Program memory		100	10
Noise level		≤ 65 dB	< 60 dB
Imbalance cutoff / tracking		Yes	
Rotor identification		manual	
Dimension (W x D x H, mm)		570 x 475 x 325	448.5 x 531 x 286
Weight without rotor		37 kg	25 kg
Power requirement (VA)		700 VA	500 VA
Power input (V, Hz)		210~240 V, 50/60 Hz (110V optional)	
Cat. No.		FL 5	FL 4

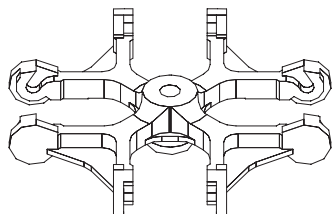
1) MFDS : Ministry of Food and Drug Safety (KOREA)

* Registered as medical device at MFDS ¹⁾		CellSpin*	SeroSpin II*	HematoSpin II
Speed RCF (xg)	Max. RPM / Fixed angle	3,000 rpm	3,400 rpm	12,000 rpm
	Max. RCF / Fixed angle	1,175 xg	973 xg	15,536 xg
Max. capacity / Fixed angle		12 slides x 0.5~0.6 mL	12 x 75 mm tube	24 x 0.07 mL capillary
ACC/DEC	ACC/DEC ramps	DEC 3 steps	6 / 6 steps	6 / 6 steps
	Acc. time to max. speed	69 / 69 sec	14 / 38 sec	35 / 59 sec
	Dec. time from max. speed	44 / 52 sec	13 / 37 sec	60 / 85 sec
Time control		< 100 min, continuous	< 100 min, pulse, continuous	< 100 min, pulse, continuous
Program memory		10	10	10
Noise level		≤ 60 dB	< 60 dB	< 60 dB
Imbalance cutoff / tracking		Yes		
Dimension (W x D x H, mm)		360 x 410 x 280	293 x 380 x 242 mm	293 x 380 x 242
Weight without rotor		24 kg	15 kg	15 kg
Power requirement (VA)		200 VA	200 VA	400 VA
Power input (V, Hz)		210~240V, 50/60 Hz (110V optional)		
Cat. No.		CE	SE II	HE II

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

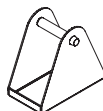
Swing Rotors for Fleta 5

HSR-4S

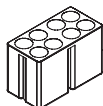


Type : Swing Rotor, $\angle 90^\circ$
 Max. RPM : 5,500 rpm
 Dim. Ø/H : Ø235.8 x 42 mm

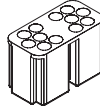
Bucket/Adaptor for HSR-4S



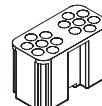
Rack Holder
HBTM



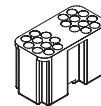
Adaptor
TR15-8



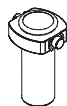
Adaptor
TR10-12



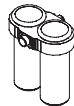
Adaptor
TR5-14



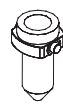
Adaptor
TR3-20



Bucket
HBT50-1



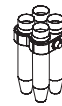
Bucket
HBT50-2



Bucket
HBT50c-1

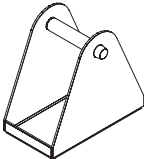


Bucket
HBT15-8

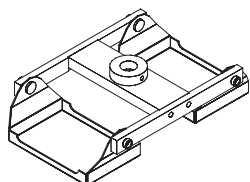


Bucket
HBT15c-4

Table of HSR-4S, Bucket and Adaptors Combination

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)
HBTM  Max. RPM : 3,000 rpm Max. RCF : 1,651 xg Radius : 164.1 mm Bucket bore (w x d x L, mm) : 90.3 x 47.2 x 57.2 Max. height for tube fit : 72.5 mm	TR15-8 	 15(16) mL Round	8 / 32	18 x 55	128.8	3,000 1,651
	TR10-12 	 10 mL Round	12 / 48	13 x 55	129.2	3,000 1,651
	TR5-14 	 5 mL Round	14 / 56	11 x 55	129.8	3,000 1,651
	TR3-20 	 3 mL Round	20 / 80	10 x 55	130.4	3,000 1,651
HBT50-1 Max. RPM : 5,500 rpm / Max. RCF : 6,131 xg Radius : 181.3 mm Bucket bore (ø/H, mm) : 30 x 99 Max. height for tube fit : 153.2 mm		 50 mL Round	1 / 4	30 x 99	153.2	5,500 6,131
HBT50-2 Max. RPM : 5,500 rpm / Max. RCF : 6,131 xg Radius : 181.3 mm Bucket bore (ø/H, mm) : 30 x 99 Max. height for tube fit : 153.2 mm		 50 mL Round	2 / 8	30 x 99	153.2	5,500 6,131
HBT50c-1 Max. RPM : 5,500 rpm / Max. RCF : 6,230 xg Radius : 184.2 mm Bucket bore (ø/H, mm) : 31.5 x 116 Max. height for tube fit : 144 mm		 50 mL Conical	1 / 4	31.5 x 115.9	144	5,500 6,230
HBT15-8 Max. RPM : 4,000 rpm / Max. RCF : 2,910 xg Radius : 162.7 mm Bucket bore (ø/H, mm) : 18 x 89.5 Max. height for tube fit : 125.3 mm		 15(16) mL Round	8 / 32	18 x 89.5	125.3	4,000 2,910
HBT15c-4 Max. RPM : 4,000 rpm / Max. RCF : 3,089 xg Radius : 172.7 mm Bucket bore (ø/H, mm) : 18 x 99.5 Max. height for tube fit : 143 mm		 15 mL Conical	4 / 16	18 x 99.5	143	4,000 3,089

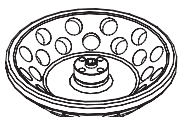
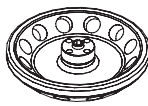
HSM-2



Type : Swing Rotor, $\angle 90^\circ$
 Max. RPM : 2,000 rpm
 Dim. W x D x H : 174 x 212 x 20 mm

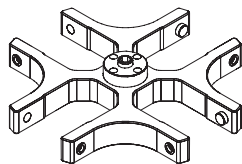
Tube Capacity	Tube per Adaptor / Rotor	Max. RPM (rpm) Max. RCF (xg)
MTP	1 / 2	2,000 622
Cell Culture		
DWP		

Fixed Angle Rotors for Fleta 4

Rotor	Adaptable Centrifuge	Tube Capacity Bottom Type	Required Adaptor	Bore Ø x L (mm) Radius (mm)	Max. RPM (rpm) Max. RCF (xg)
AL15-24  Type : Fixed Angle Rotor, $\angle 45^\circ$ Max. RPM : 4,000 rpm Max. RCF : 2,789 xg Max. Capacity : 24 x 15 mL Dim. ϕ/H : 164.6 x 42.8 Max. height for tube fit : 143.3 mm	FL 4	 15(16) mL Round	TR15(24) 	18 x 104.5 155.8	4,000 2,789
		 15 mL Conical			
AL15-12  Type : Fixed Angle Rotor, $\angle 45^\circ$ Max. RPM : 4,000 rpm Max. RCF : 2,547 xg Max. Capacity : 12 x 15 mL Dim. ϕ x H : 164.6 x 42.8 mm Max. height for tube fit : 134 mm	FL 4	 15(16) mL Round	TR15(12) 	18 x 94.5 142.4	4,000 2,547
		 15 mL Conical			

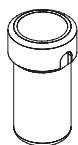
Swing Rotors for Fleta 4

S85-4



Type : Swing Rotor, $\angle 90^\circ$
Max. RPM : 4,000 rpm
Dim. Ø/H : Ø230 x 36 mm

Bucket for S85-4

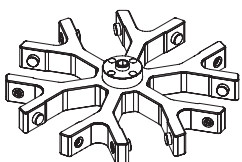


Bucket
B85

Table of S85-4, Buckets and Adaptor Combination

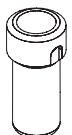
Bucket	Required Adaptor	Tube Capacity Bottom Type	Tube per Adaptor / Rotor	Bore (Ø x L, mm)	Max. height for tube fit (mm)	Max. RPM (rpm) Max. RCF (xg)
B85 Max. RPM: 4,000 rpm Max. RCF: 3,087 xg Radius(mm): 172.6 Bucket bore (ø x L,mm): 38.5 x 88.5 Max. height for tube fit(mm): 149.2	-	85 mL Round	1 / 4	38.5 x 88.5	149.2	4,000 3,088
	TR50(85)	50 mL Round	1 / 4	29 x 95	144.2	4,000 3,001
	TR50c(85)	50 mL Conical	1 / 4	29.5 x 100	149.2	4,000 3,088
	TR15(85)	15 mL Round	1 / 4	17 x 94	143.2	4,000 2,984
	TR15c(85)	15 mL Conical	1 / 4	17 x 100	149.2	4,000 3,088

S50-6



Type : Swing Rotor, $\angle 90^\circ$
Max. RPM : 4,000 rpm

Bucket for S50-6



Bucket
B50

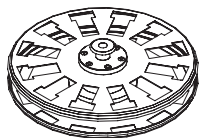


Bucket
B15c-2

Table of S50-6, Buckets and Adaptors Combination

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)
B50 Max. RPM : 4,000 rpm Max. RCF : 3,243 xg Radius : 181.3 mm Bucket bore (ø x L,mm): 30.3 x 93.5 Max. height for tube fit(mm): 145.7	-	50 mL Round	1 / 6	30 x 93.5	145.7	4,000 3,243
	-	50 mL Conical	1 / 6			
	TR25(50)	25 mL Round	1 / 6	20 x 87		
	TR15(50)	15(16) mL Round	1 / 6	18 x 87		
B15c-2 Max. RPM: 4,000 rpm Max. RCF: 2,966 xg Radius: 165.5 mm		15 mL Conical	2 / 12	17 x 86.5	138.7	4,000 2,966

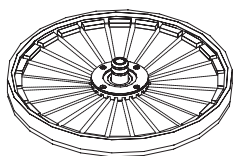
Angle Rotors for CellSpin

Rotor	Tube Capacity	Bore Ø x L (mm) Radius (mm)	Max. RPM (rpm) Max. RCF (xg)
Cyto  Type : Angle Rotor Max RPM : 3,000 rpm Max RCF : 1,175 xg Max. Capacity : 12 x 6 mL Dim. ø/H : ø233.5 x 65 mm	 Cytocell Accessory 12 slides x 0.5~0.6 mL	ø233.5 x 65 116.8	3,000 1,175

Angle Rotors for SeroSpin II

Rotor	Tube Capacity	Bore Ø x L (mm) Radius (mm)	Max. RPM (rpm) Max. RCF (xg)
SERO-75  Type : Angle Rotor Max RPM : 3,400 rpm Max RCF : 1,118 xg Max. Capacity : 12 x 5 mL Dim. ø/H : ø173 x 87.5 mm	12 x 75 mm tube	ø173 x 87.5 86.5	3,400 1,118

Angle Rotors for HematoSpin II

Rotor	Tube Capacity	Radius (mm)	Max. RPM (rpm) Max. RCF (xg)
Hemato-24  Type : Angle Rotor Max RPM : 12,000 rpm Max RCF : 15,536 xg	24 x 0.07 mL capillary	96.5	12,000 15,536