



Multi-purpose Table Top Centrifuge

8420



80x15mL or 4x750mL can be Centrifuged by Swinging Bucket Rotor.

Easy-to-operate and convenient functions

- **Program memories (5 channels) for repeated routine operation**
A memory function is available for repetitive operation using the same set values of operation. Once the set values are stored in the memory, simply pressing the "MEMORY" key enables repetition of operation after sample are loaded.
- **Acceleration and deceleration curves can be varied in three steps according to the type of sample and experimental conditions.**
- **RCF (xg)-set operation function and stepped centrifugal force function**
- **G-sec value (integrated RCF value) set operation function**
- **Equipped with a tachometer port to comply with GMP requirements. Actual rotor speed is easy to check.**

Safety persued

- **8420 conforms to the International Safety Standard IEC 61010-2-020.**
- **This model is designed such that the rotor does not come off when it is damaged during rotation.**
The lid is interlocked with two hooks provided at the right and the left side of the lid.
The interlock part is protected from mechanical shock and is equipped with a double protected electrical circuit.
- **The various alarm detector sensors secure operation.**
When the alarm is detected, the operation stops.

Design incorporates friendliness to the global environment and recycling.

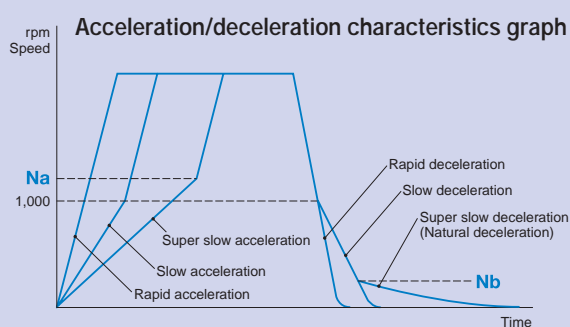
A limited amount of plastic is used to reduce the load on the environment.



Acceleration and deceleration characteristics

Acceleration and deceleration curves can be varied in three steps according to the type of sample and experimental conditions.

Acceleration and/or deceleration commencement speed can be selected for the sample easy to stir.



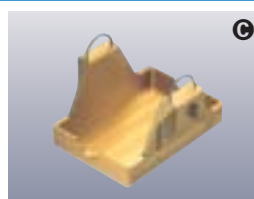
- For the super slow acceleration and the super slow deceleration, a characteristic change-over speed Na and Nb can be set from 0 to 6,000 rpm.
- Natural deceleration starts at the change-over speed Nb.



RS-3011 Swing Bucket Rotor
with the shield cover (Code No.027-9210)
The shield cover is easy to mount and dismount because of its clip system



Code No.053-5180 Bucket
Maximum capacity of 4x750mL



Code No.053-5220 Bucket
8x microplate or 4x deep well plate can be centrifuged.
No bar obstructs the plate from taking out.



Code No.053-5170 Bucket
8x microplate or 4x culture plate can be centrifuged.

Rotor, Bucket, Tube Rack

Rotor Name	Nominal Capacity	Tube size (mm) diam. x length	Maximum Speed rpm	Maximum RCF xg	Bucket Code No.	Tube Rack Adaptor Code No.	
Swinging Bucket Rotor							
RS-3011	140x6mL/RIA tube	10 ~ 12x65 ~ 100 (95)	3,300	2,150 *1	053-5310	055-5830	
	100x10mL	12 ~ 14.5x75 ~ 110 (105)	3,300	2,280	053-5310	055-5840	
	80(64)x15mL	14.5 ~ 17.2x75 ~ 110 (105)	3,300	2,280	053-5310	055-5850	
	16x15/50mL	15mL 14.5 ~ 17.2x75 ~ 135 (125)	17x121 (121)	3,300	2,280	053-5310	055-5860
		50mL 27 ~ 36x75 ~ 115 (110)					
	48x15mL conical tube	30x117 (117)	3,300	2,280	053-5310	055-4660	
	24x50mL conical tube	17x121 (117)	3,300	2,280	053-5310	055-4610	
	8x100mL	38 ~ 46.5x75 ~ 120 (116)	3,300	2,280	053-5310	055-5870	
	4x250mL	60 ~ 61.8x100 ~ 141 (136)	3,300	2,280	053-5310	055-6880	
	4x350mL	65 ~ 71x100 ~ 130 (122)	3,300	2,280	053-5310	055-6890	
	72x15mL	14.5 ~ 17.2x75 ~ 110	3,300	2,280	053-5180	055-0210	
	16x50mL	27 ~ 36x75 ~ 114	3,300	2,280	053-5180	055-0240	
	48x15mL conical tube	17x121	3,300	2,280	053-5180	055-0220	
	16x50mL conical tube	30x117	3,300	2,280	053-5180	055-0230	
	4x250mL *5	60 ~ 61.8x100 ~ 141	3,300	2,280	053-5180	055-4490	
	4x350mL	65 ~ 71x100 ~ 130	3,300	2,280	053-5180	055-5880	
	4x500mL conical tube *8	96x147	3,300	2,280	053-5180	431124 *8	
	4x650mL	84 ~ 86x100 ~ 125	3,300	2,280	053-5180	055-5890	
	4x750mL	95 ~ 97.5x100 ~ 135	3,300	2,280	053-5180		
	8x microplate	88(W)x134(D)x50(H)	3,300	2,020 *1	053-5220		
	4x deepwell plate		3,300	2,020 *1	053-5220		
	8x microplate	92(W)x133(D)x36(H)	2,000	770 *1	053-5170	055-5900	
	8x culture plate		2,000	770 *1	053-5170		
RS-730 *6	80x RIA tube	12x75 ~ 110	4,000	3,260	S13215	S18005	
	48x7mL blood collecting tube	12.5 ~ 13x75 ~ 106	4,000	3,260	S13215	S18012	
	48x15mL *3	15.5 ~ 17x96 ~ 115	4,000	3,260	S13215	S18015	
	16x15mL conical tube	16.5x120.6	4,000	3,260	S13215	S18016	
	8x50mL conical tube *2	29.5x117	4,000	3,260	S13215	S18052	
	28x50mL conical tube	29.5x117	4,000	3,400 *1	S13235		
	12x microplate *4	86(W)x130(D)x49(H)	4,000	2,880 *1	S13220		
	4x deepwell plate *4		4,000	2,880 *1	S13220		
Fixed Angle Rotor							
RA-288M2	24x12mL	15.9 ~ 16.5x97 ~ 120	6,000	4,830			
RA-410M2	8x15mL conical tube	17x121	6,000	4,750		055-1280	
	8x50mL conical tube	30x117	6,000	4,830			
RA-500M2	10x50mL	26.4 ~ 29.2x98 ~ 121	6,000	4,830			
Plate Rotor							
PT-20 *1	6x microplate *4	86(W)x128(D)x52(H)	3,300	1,220	attached to rotor		
	2x deepwell plate *4						
PT-21 *1	6x microplate *4	86(W)x130(D)x62(H)	3,300	1,350	attached to rotor		
	2x deepwell plate *4						
PT-89 *1	8x microplate *4	86(W)x130(D)x89(H)	2,400	1,080	attached to rotor	055-6370 *9	
	4x deepwell plate *4						

Fixed Angle Rotor

RA-288M2	24x12mL	15.9 ~ 16.5x97 ~ 120	6,000	4,830		
RA-410M2	8x15mL conical tube	17x121	6,000	4,750		055-1280
	8x50mL conical tube	30x117	6,000	4,830		
RA-500M2	10x50mL	26.4 ~ 29.2x98 ~ 121	6,000	4,830		

Plate Rotor

PT-20 *1	6x microplate *4	86(W)x128(D)x52(H)	3,300	1,220	attached to rotor	
	2x deepwell plate *4					
PT-21 *1	6x microplate *4	86(W)x130(D)x62(H)	3,300	1,350	attached to rotor	
	2x deepwell plate *4					
PT-89 *1	8x microplate *4	86(W)x130(D)x89(H)	2,400	1,080	attached to rotor	055-6370 *9
	4x deepwell plate *4					

*1 As to the indication of the RCF and the detection of the over speed, refer to the operation and service manual.

*2 Tubes made by other company can be used with the shield cover. Please contact the local dealer.

*3 In case that the shield cover is mounted, the tubes at the corner of the bucket cannot be accommodated. As a result, the number of the tubes to be accommodated decreases by 4 pieces per each bucket. (Example: Only 32 tubes can be accommodated in case of 15mL tubes in the S13215 bucket, rather than 48.)

*4 Check the strength of the plate before operation. The plate on the lowest position in the bucket may be damaged.

*5 The conical tubes of 175mL, 200mL or 225mL can be used if the supporter is applied.

175mL conical tube is made by Falcon (Code No.352076) and requires a cushion (Code No.352090).

200mL conical tube is made by Nalge Nunc (Code No.376813) and requires a cushion adaptor (Code No.377585).

225mL conical tube is made by Falcon (Code No.352075) and requires a cushion (Code No.352090).

*6 In case of use of RS-730 rotor at 4,000rpm, please contact your local dealer, as this application requires a special specification.

If you use the swing bucket rotor and plate rotor in case of this special specification, please contact your local dealer.

*7 The figures in parentheses show the length in case that the shield cover (Code No.027-9210) is used.

*8 The tube is made by Corning (Code No.431123) and requires a cushion (Code No.431124).

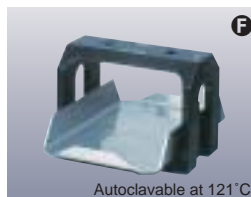
*9 The tray is convenient for taking out the plate.



RS-730
Swing Bucket Rotor
The image shows the rotor with the aluminium bucket (Code No.S13215).



Shield cover for S13215
Code No.S17112 (Optional)
Easy to mount and dismount because of clip system



Code No.S13220
12x microplate or 4x deep well plate can be centrifuged.



RA-410M2
Fixed Angle Rotor
8x15mL conical tube/50mL conical tube



PT-20/21
Plate Rotor
6x microplate or 2x deep well plate can be centrifuged.

Specifications

Model 8420

Maximum Speed	● 6,000rpm
Maximum RCF	● 4,830xg
Maximum Capacity	● 3,000mL
Control system	● Micro-processor control (Brushless motor) Speed, RCF, Time, Acceleration & Deceleration, 5 channel memories
Alarm display	● Lid open, Imbalance, Over speed, Rotor set state Function for detecting an occurrence of electrical abnormality in motor, inverter, lid interlock and speed sensor.
Acceleration / Deceleration	● Three-level selectors; Rapid, Slow and Super Slow
Speed setting	● From 200 to 6,000rpm, 10rpm increments
Speed indication	● Digital display, From 0 to 6,400rpm, 10rpm increments
RCF setting	● From 10 to 4,830xg, 10xg increments
RCF indication	● Digital display, From 0 to 5,550xg, 10xg increments (different by the rotor)
Integrator setting and indication	● Digital display, From 1.00 to 9.99x10 ⁹ g-sec
Step operation setting and indication	● Speed, RCF, Time, Acceleration/Deceleration, one channel memory
Timer setting and indication	● Digital display, with Hold and Electric buzzer from 1 sec to 100 sec, in 1 sec increment setting/indication from 100 sec to 990 sec, in 10 sec increments setting/1 sec increments indication from 1 min to 100 min, in 1 min increment setting/indication from 100 min to 990 min, in 10 min increments setting/1 min increments indication
Power requirements	● Single phase AC115V±10%, 50/60Hz, 15A Single phase AC220V±10%, 230V±10%, 50/60Hz, 8A
Rated voltage and Rated current	● AC115V, 9.5A AC220/230V, 4.7A
Power consumption and Heat output	● 115V, 640W 2.3MJ/h 220/230V, 750W 2.7MJ/h
Dimensions, weight	● 53(W) x 62(D) x 37(H)cm*, 60kg
Test standard	● Manufactured and tested in accordance with IEC 61010-2-020

(*1) Those of projections are not included.

All specifications and external appearance subject to change without notice.

* On Model 8420 only use KUBOTA made rotor, adapter and tube rack. Do not attempt use rotors, adapters or tube racks made by other manufacturers.

* The rotor mentioned in the catalogue is usable on other KUBOTA centrifuge models. For details, refer to the catalogues relevant to each model.

* Follow instructions given in the relevant Instruction & Service Manual for operating centrifuges.



Safety Precautions

For your safe use of the equipments, be sure to read the instruction manual carefully before you start its operation.

Parts may be adversely affected by heat, humidity and specimens or deteriorated by aging resulting in functional failures or may even lose their safety characteristic to cause accidents.



DISCONTINUE USE

Always discontinue use when phenomena listed at right appear.

- The rotor or bucket has been found to be damaged or corroded.
- A burnt smell comes out of the equipment.
- You receive a minor electrification when you touch the equipment body by a naked hand.
- Some other abnormality or failure has been found occurring.

IMPORTANT

To prevent occurrences of functional failures or accidents, turn off the power switch, pull out the power cable plug from the plug socket and be sure to contact your nearest Kubota Dealer, or an office of Kubota Corporation when there is no Kubota Dealer in your neighbourhood.

KUBOTA CORPORATION

<http://www.centrifuge.jp>

29-9 Hongo 3-chome, Bunkyo-ku, Tokyo 113-0033, Japan

Tel +81 3 3815 1331 Fax +81 3 3814 2574

E-mail: f-trade@kubotacorp.co.jp

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