



Table Top Centrifuge

5220



Compact Size of Table Top Centrifuge with Swing Bucket Rotor, Plate Rotor & Fixed Angle Rotor

This centrifuge can mount Swing Bucket Rotor, Plate-Rotor & Fixed Angle Rotor.

- 68x10mL blood collecting tubes/15mL glass tubes can be centrifuged.
- In the case of ST-410M Swing Bucket Rotor, the sealing cap is available for the bio-hazard proof.
- Plate-Rotor can eliminate dye terminator when used with the MultiScreen manufactured/supplied by Millipore Corporation.

Easy-to-use and convenient functions

- **Program memories (3 channels) for repeated routine operation**
A memory function is available for repetitive operations using the same set values of operation, i.e. speed and time. Once the set values are stored in the memory, simply pressing the "MEMORY" key enables repetition of the operation once the samples are loaded.
- **RCF (xg) set operation function**
Not only speed but also RCF set function are available. In the case where the protocol is specified by RCF, the operation conditions are easily set-up.
- **Buzzer and melody at the end of operation**
4 different melodies and one buzzer sound allow recognition of the end of specific operations, in the case where two to five centrifuges are in operation.
- **Acceleration and deceleration curve can be varied in three steps according to the type of sample and the experimental conditions.**
- **Compliance with GMP requirements**
Equipped with a tachometer port. Actual rotor speed is easy to check.



A rotor free from tools

The rotor can be fixed on the drive shaft by fastening the knob.



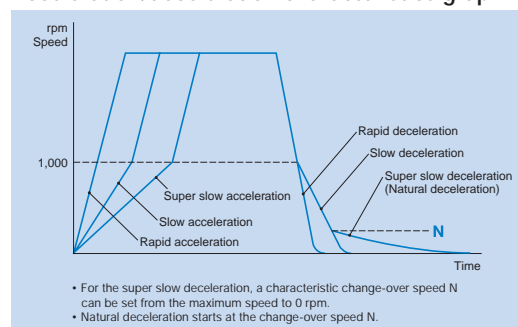
Safety pursued

- The various alarm detector sensors secure operation. When the alarm is detected, the operation stops.
- The operation stops when a rotor setup condition sensor detects that a rotor is not properly set on the drive shaft.
- 5220 conforms to the International Safety Standard IEC 61010-2-020.



Two hooks are provided on the right and left sides of the lid to prevent debris of the rotor from coming off, should it be broken during operation.

Acceleration/deceleration characteristics graph



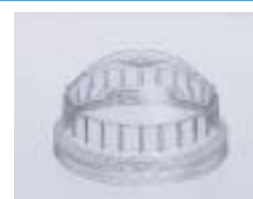
- Acceleration and/or deceleration commencement speed can be selected for the sample easy to stir.
- Density gradient method is also possible.



ST-720M
Swing Bucket Rotor



ST-410M
Swing Bucket Rotor
with sealing cap (S17111)



Sealing Cap
Code No.S17111
(optional)

Rotor, Bucket and Tube Rack Table for 5220

Rotor Name	Nominal Capacity	Tube size (mm) diam. x length	Maximum Speed rpm	Maximum RCF xg	Bucket Code No.	Tube Rack Adaptor Code No.
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Swinging Bucket Rotor

ST-720M	80x2mL	9.5 ~ 11x36 ~ 42	3,500	2,290	053-5820	055-4800
	96x1.8mL sample cup	17x38	3,500	2,040	053-5820	055-4940
	96xRIA tube	10 ~ 12x70 ~ 95	3,500	2,190	053-5820	055-4730
	80x10mL	12 ~ 14x70 ~ 95	3,500	2,260	053-5820	055-4740
	48x10mL blood collecting tube/15mL	15 ~ 17.2x75 ~ 110	3,500	2,330	053-5820	055-4750
	68x7mL blood collecting tube	12.5 ~ 13.5x75 ~ 110	3,500	2,300	053-5840	055-0260
	68x10mL blood collecting tube/15mL	15 ~ 17.2x75 ~ 110	3,500	2,300	053-5840	
	28x15mL conical tube	17x121	3,500	2,300	053-5840	
	32x15mL conical tube	17x121	3,500	2,330	053-5820	055-4780
	8x50mL	27 ~ 36.4x85 ~ 110	3,500	2,330	053-5820	055-4760
	16x50mL conical tube	30x117	3,500	2,330	053-5820	055-6070
	4x100mL	38 ~ 46.5x75 ~ 120	3,500	2,330	053-5820	055-4770
	4x175mL conical tube *1	61x118	3,500	2,330	053-5820	055-4850
	4x200mL conical tube *1	61x130	3,500	2,330	053-5820	055-4850
4x225mL conical tube *1	61x137	3,500	2,330	053-5820	055-4850	
4x250mL	60 ~ 61.8x100 ~ 130	3,500	2,380	053-5820	055-4850	
ST-410M	48x2mL	10.7x42	4,000	2,670	attached to rotor	S17008
	48x5mL	12.5x75	4,000	2,670	attached to rotor	S17006
	48x7mL	12 ~ 12.5x100 ~ 112	4,000	2,670	attached to rotor	S17007
	28x7mL blood collecting tube	12.5 ~ 13x75 ~ 106	4,000	2,670	attached to rotor	S17027
	12x15mL conical tube *2	16.5x120.6	4,000	2,670	attached to rotor	S17019
	12x15mL conical tube *2	16.5x120.6	4,000	2,860	S13130	
	28x10mL blood collecting tube/15mL	15.5 ~ 17x90 ~ 110	4,000	2,670	attached to rotor	S17015
	4x50mL	34x110	4,000	2,670	attached to rotor	S17050
	4x50mL	27 ~ 35.8x82 ~ 110	4,000	2,670	attached to rotor	055-5670
	4x50mL conical tube	29.5x117	4,000	2,670	attached to rotor	S17049
	4x100mL	44 ~ 45x110	4,000	2,670	attached to rotor	S17100
4x200mL	56.5x104	4,000	2,670	attached to rotor		
ST-480M	64x2mL	9.5 ~ 11x36 ~ 42	3,000	1,570	053-7030	
	48x10mL	12 ~ 14x85 ~ 110	3,000	1,600	053-7190	
	32x10mL blood collecting tube/15mL	15 ~ 17.2x85 ~ 110	3,500	2,270	053-7130	
	4x50mL *3 *4	27 ~ 38x100 ~ 110	5,000	4,640	053-7110	
	8x50mL *4	27 ~ 38x100 ~ 110	3,500	2,270	053-7150	
	16x15mL conical tube	17x121	3,000	1,770	053-7300	
	4x50mL conical tube *5	30x117	5,000	4,640	053-5010	
8x50mL conical tube *5	30x117	3,500	2,270	053-5020		

Plate Rotor

PT-20M	6x microplate *6	86(W)x128(D)x52(H)	4,000	1,790	attached to rotor	
	2x deepwell plate *6					
PT-21M	6x microplate *6	86(W)x130(D)x62(H)	5,000	3,100	attached to rotor	
	2x deepwell plate *6					
PT-89M	8x microplate *6	86(W)x130(D)x89(H)	2,400	1,080	attached to rotor	055-6370 *7 (Tray)
	4x deepwell plate *6					

Fixed Angle Rotor

AT-360M	24x15mL	15 ~ 17.2x95 ~ 130	3,500	2,270		
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Micro Rotor

AT-2018M	18x2mL	9.5 ~ 11x36 ~ 42	8,000	5,870		
	18x0.5mL	7.0 ~ 7.9x25 ~ 34	8,000	5,150		055-7590
	18x0.4mL	5.4 ~ 6.1x26 ~ 48	8,000	5,720		055-7580
	18x0.2mL PCR	5.9 ~ 6.3x20 ~ 24	8,000	4,510		055-0500

*1 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).

*2 Sealing cap cannot be mounted with S17019 tube rack. In the case of 12x15mL conical tube bucket S13130, a sealing cap (Code S17111) can be mounted.

*3 Bio-hazard proof sealing adaptors for 50mL conical tubes (Code No.055-5760) and for 15mL conical tubes (Code No.055-5750) are available.

*4 15mL glass tubes can be accommodated with an adaptor (Code No.055-7400). The optional cushion (Code No.024-1400) is required.

*5 15mL conical tubes can be accommodated with an adaptor (Code No.055-1280).

*6 Before centrifuging, check the strength of the plate, as the bottom plate may be damaged.

*7 This tray is convenient for taking out the plate.



ST-480M
Swing Bucket Rotor



Autoclavable at 121°C

PT-20M/21M
Plate Rotor
6x microplate
Ethanol precipitation can be
realized at 3,100xg with PT-
21M.



PT-89M Plate Rotor
8x microplate
1x deepwell plate + 2x filter
plate
Plate with 89mm or less
height can be operated.



AT-360M
Fixed Angle Rotor
24x15mL



Autoclavable at 121°C

AT-2018M
Micro Rotor
18x2mL

Specifications

Model 5220

Maximum Speed	● 8,000rpm
Maximum RCF	● 5,870xg
Maximum Capacity	● 1,020mL
Control system	● Micro-processor control (Brushless motor) Speed, RCF, Time, Acceleration & Deceleration, 3 channel memories
Alarm display	● Lid open, Imbalance, Over speed, Rotor set abnormality. Function for detecting an occurrence of electrical abnormality in motor, inverter, lid interlock and speed sensor.
Acceleration / Deceleration	● Three level selectors : Rapid, Slow, Super slow
Speed setting	● From 300 to 8,000rpm, 10rpm increments
Speed indication	● Digital display, From 0 to 8,300rpm, 10rpm increments
RCF setting	● From 100 to 5,870xg (different by rotor), 10xg increments
RCF indication	● Digital display, From 0 to 6,320xg (different by rotor), 10xg increments
Timer setting and indication	● Digital display, with Hold from 1 min to 99 min, in 1 min increment setting and indication
Power requirements	● Single phase AC100V±10%, 115V±10%, 50/60Hz, 15A Single phase AC220V±10%, 230V±10%, 50/60Hz, 10A
Rated voltage and Rated current	● 100/115V, 6.6A, 220/230V, 3.4A
Power consumption and Heat output	● 470W, 1.7MJ/h
Dimensions, weight	● 44(W) x 52(D) x 35(H)cm*, 48kg
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 5220 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. <ul style="list-style-type: none"> •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. 	<div style="background-color: yellow; padding: 5px; text-align: center;">IMPORTANT</div> 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.

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