

KUBOTA

Table Top Refrigerated Centrifuge



5500

Various types of tubes can be centrifuged.

Features

- **Maximum speed of 15,000rpm**
- **Maximum RCF of 21,040xg**
- **Rapid acceleration**
10 sec to the maximum speed of 15,000 rpm when AT-2018M micro rotor is used.
- **Sample temperature kept at 4°C**
At the ambient temperature of 25°C. See rotor table for details.
- **Selective temperature indication/setting**
Either the temperature of the chamber or the sample temperature, which depends upon the type and the speed of the rotor, can be selected.
- **Eco mode**
- **Auto interlock lid**
- **Bio-sealed Rotor**
AT-2730M rotor is certified as bio-hazard proof with the CAMR standard.
- **Tool-less rotor**
Rotors can be mounted or dismounted without using a tool (except RA-410M3 Fixed angle rotor).

Easy-to-use and convenient functions

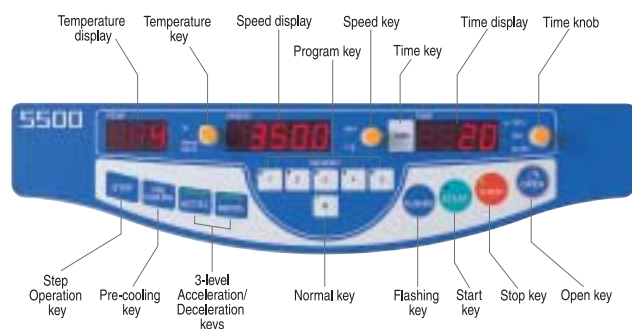
- **Memory Flashing**
Spin-down time from 1 to 90 seconds is memorized. Key-in of flashing button next time calls up the memorized spinning time.
- **Program memories (5 channels) for repeated routine operation**
A memory function is available for repetitive operation using the same set values of operation, i.e. speed, time, and temperature.
- **Acceleration and deceleration**
Acceleration and deceleration curve can be varied in three steps according to the sample and experimental conditions.
- **Pre-cooling**
Enables rotor to reach low temperature before experiments.
- **Buzzer at the end of operation**
5 different buzzer sounds allow recognition of the end of a centrifugal operation from across the room.
- **Compliance with GMP requirements**
Equipped with a tachometer port for measurement of the actual rotor speed. Actual rotation radius can be set and the indication of correct RCF is realized.
- **Delayed start function**
The operation automatically starts after the preset duration from pressing the START key. This function enables centrifuging of the fresh blood that is taken out at the time just when the erythrocytes coagulate.
- **RCF (xg) -set operation function and stepped centrifugal force function**
- **Integrator function that can attain optimization of centrifuging conditions.**
G-sec value (Integrated RCF value) can be measured and the operation with this value is possible.
- **Equipped with an automatic rotor identification when a rotor is simply placed on the driver shaft.**

Safety pursued

- 5500 conforms to the International Safety Standard IEC 61010-2-020.
- Equipped with various sensors for higher safety. Operation stops at the occurrence of an abnormality.



Operation Panel of Model 5500



Micro Rotor



AT-2018M
18 x 2mL



AT-2724M
Multi-angle rotor
3 types of tubes, 2mL, 0.5mL and 0.2mLPCR can be used without adaptors.



AT-2730M
Bio-sealed rotor
30 x 2mL
Good for anti-biohazard usage. The bio-hazard proof rotor is certified with the CAMR standard.

Fixed Angle Rotor



AT-508C
8 x 50/15mL Conical tubes
12mL, 50mL tubes can be used.



RA-410M3
8 x 50/15mL Conical tube
This rotor is not a tool-less rotor.

Plate Rotor



PT-21M
PT-21M can do ethanol precipitation at 3,100xg.

Swinging Bucket Rotor



ST-720M
The tube rack set in the rotor is for conical tube.



ST-410M
The cover at the top of the bucket is a sealing cap (Code No.K17111) (optional).
Note that the combination shown above was grouped for the photograph only. This arrangement cannot be used.

Rotor, Bucket, Tube Rack Table for Model 5500

Rotor Name	Nominal Capacity	Tube size (mm) diam. x length	Maximum Speed rpm	Maximum RCF xg	Bucket Code No.	Tube Rack Adaptor Code No.	
Micro rotor							
AT-2018M	18 x 2mL	9.5~11.0 x 36~42	15,000	20,630	—	—	
	18 x 0.5mL	7.0~7.9 x 25~34	15,000	18,110	—	055-7590	
	18 x 0.4mL	5.4~6.1 x 26~48	15,000	20,120	—	055-7580	
	18 x 0.2mL PCR	5.9~6.3 x 20~24	15,000	15,850	—	055-0500	
AT-2724M	24 x 2mL	9.5~11.0 x 36~42	15,000	20,630	—	—	
	12 x 0.5mL	7.0~7.9 x 25~34	15,000	16,850	—	—	
	24 x 0.4mL	5.4~6.1 x 26~48	15,000	20,380	—	055-7580	
	12 x 0.2mL PCR	5.9~6.3 x 20~24	15,000	14,840	—	—	
BS AT-2730M	30 x 2mL	9.5~11.0 x 36~42	14,000 *1	21,040	—	—	
	14 x 0.5mL	7.0~7.9 x 25~34	14,000 *1	17,530	—	—	
	30 x 0.4mL	5.4~6.1 x 26~48	14,000 *1	20,380	—	055-1240	
	14 x 0.2mL PCR	5.9~6.3 x 20~24	14,000 *1	16,430	—	—	
Fixed Angle Rotor RA-410M3 is not a tool-less rotor.							
AT-508C	8 x 12mL (plastic) *2	15.9~16.5 x 97~120	6,000	5,110	—	055-1120	
	8 x 14mL *3	17 x 100	6,000	4,990	—	055-0550	
	8 x 15mL Conical tubes	17 x 121	6,000	5,270	—	055-1280	
	8 x 50mL (plastic) *4	26.4~28.8 x 98~115	6,000	4,990	—	055-1110	
	8 x 50mL Conical tubes	30 x 117	6,000	5,350	—	—	
	Sartorius	Vivaspin 2	16.7 x 129	6,000	5,270	—	055-1280
		Vivaspin 6	16.7 x 129	6,000	5,270	—	055-1280
		Vivaspin 20	30 x 117	6,000	5,350	—	—
	Millipore	Centricon	15.5 x 126.5	6,000	5,150	—	055-0870
		Amicon Ultra-4	17 x 129	6,000	5,270	—	055-1280
Amicon Ultra-15		30 x 121	6,000	5,350	—	—	
RA-410M3	8 x 12mL (plastic) *2	15.9~16.5 x 97~120	10,000 *1	12,970	—	055-1120	
	8 x 14mL *3	17 x 100	10,000 *1	12,630	—	055-0550	
	8 x 15mL Conical tubes	17 x 121	10,000 *1	13,190	—	055-1280	
	8 x 50mL (plastic) *4	26.4~28.8 x 98~115	10,000 *1	12,860	—	055-1110	
	8 x 50mL Conical tubes	30 x 117	10,000 *1	13,420	—	—	
	Sartorius	Vivaspin 2	16.7 x 129	10,000 *1	13,190	—	055-1280
		Vivaspin 6	16.7 x 129	10,000 *1	13,190	—	055-1280
		Vivaspin 20	30 x 117	10,000 *1	13,420	—	—
	Millipore	Centricon	15.5 x 126.5	10,000 *1	13,080	—	055-0870
		Amicon Ultra-4	17 x 129	10,000 *1	13,190	—	055-1280
Amicon Ultra-15		30 x 121	10,000 *1	13,420	—	—	
Plate rotor							
PT-21M	6 x micro-plate *5	86 (W) x 130 (D) x 62(H)	5,000	3,100	Equipped with rotor	—	
	2 x deepwell-plate *5						
Swinging bucket rotor							
ST-720M	80 x 2mL	9.5~11 x 36~42	3,500	2,290	053-5820	055-4800	
	96 x RIA tube	10~12.3 x 65~95	3,500	2,190	053-5820	055-4730	
	48 x 5/7mL narrow blood collecting tube *6	12~13.3 x 63~110	3,500	2,310	053-5820	055-4990	
	24 x 8mL CPT cell preparation tube *7	13.5~15.8 x 81~130	3,500	2,310	053-5820	055-6900	
	80 x 10mL	12.5~13.8 x 65~95	3,500	2,260	053-5820	055-4740	
	48 x 10mL blood collecting tube/15mL	15~17.2 x 81~110	3,500	2,330	053-5820	055-4750	
	68 x 5/7mL narrow blood collecting tube *6	12.5~13.7 x 62~110	3,500	2,300	053-5840	055-0260	
	48 x 5/10mL narrow/thick blood collecting tube/15mL *6	12~17.2 x 82~110	3,500	2,300	053-5820	055-0880	
	68 x 10mL blood collecting tube/15mL	15~17.2 x 52~110	3,500	2,300	053-5840	—	
	28 x 15mL Conical tube	17 x 121	3,500	2,300	053-5840	—	
	32 x 15mL Conical tube	17 x 121	3,500	2,330	053-5820	055-4780	
	8 x 50mL	27~36.4 x 85~110	3,500	2,330	053-5820	055-4760	
	16 x 50mL Conical tube	30 x 117	3,500	2,330	053-5820	055-6070	
	4 x 100mL	38~46.5 x 75~120	3,500	2,330	053-5820	055-4770	
	4 x 175/200/225mL Conical tube *8	61 x 118/61 x 130/61 x 137	3,500	2,330	053-5820	055-4850	
	4 x 250mL	60~61.8 x 100~130	3,500	2,380	053-5820	055-4850	
8x/12x/16x Self-standing sputum tube *9	Cap diam. 48/ 37/ 31	3,500	*9	053-5820	*9		
ST-410M	48 x 2mL	10.7 x 42	5,000	4,160	Equipped with rotor	K17008	
	48 x 5mL RIA tube	12.5 x 55~75	5,000	4,160	Equipped with rotor	K17006	
	48 x 7mL	12~12.5 x 100~112	5,000	4,160	Equipped with rotor	K17007	
	28 x 7mL blood collecting tube	12.5~13 x 75~106	5,000	4,160	Equipped with rotor	K17027	
	12 x 15mL Conical tube *10	16.5 x 120.6	5,000	4,160	Equipped with rotor	K17019	
	12 x 15mL Conical tube *10	16.5 x 120.6	5,000	4,470	K13130	—	
	28 x 10mL blood collecting tube/15mL	15.5~17 x 87~110	5,000	4,160	Equipped with rotor	K17015	
	4 x 50mL	34 x 110	5,000	4,160	Equipped with rotor	K17050	
	4 x 50mL	27~35.8 x 82~110	5,000	4,160	Equipped with rotor	055-5670	
	4 x 50mL Conical tube	29.5 x 117	5,000	4,160	Equipped with rotor	K17049	
	4 x 100mL	44~45 x 110	5,000	4,160	Equipped with rotor	K17100	
4 x 200mL	56.5 x 104	5,000	4,160	Equipped with rotor	—		

*1 Cooling down to 7°C or below is possible at this speed.

*2 This tube is Nalgene Nunc's plastic tube (Catalogue no. 3110-0120, 3117-0120).

*3 This tube is BD Falcon's tube (Catalogue no. 352006, 352018, 352059).

*4 This tube is Nalgene Nunc's plastic tube (catalogue no. 3110-0500, 3110-9500, 3112-0050, 3114-0050, 3117-9500, 3118-0050, 3119-0050).

*5 Test the strength of the plates before centrifuging. The bottom and lower plate may be damaged.

*6 5/7mL narrow tube made by Sekisui(Insepack II), Termo(Venoject II), Nipro(Neotube) and Becton Dickinson (Vacutener) can be used. Tube for flow cytometry can be used.

*7 The CPT cell preparation tube is made by Becton Dickinson (Vacutener 8mL for CPT cell separation)

*8 175 and 225mL conical tubes are made by Falcon (Catalogue No.352076 and 352075 respectively) and requires a cushion (Catalogue No.352090).

*9 200mL conical tube is made by Nalge Nunc (Catalogue No.376813) and requires a cushion adaptor (Catalogue No.377585).

*10 Several types of sputum tubes are acceptable. Contact our distributor.

*11 Sealing cap cannot be accommodated on K17019 tube rack. Sealing cap (Code No.K17111) can be accommodated on K13130 bucket for 12 x 15mL conical tube.

Specifications

Model 5500

Maximum Speed	● 15,000rpm
Maximum RCF	● 21,040xg
Maximum Capacity	● 1,020mL
Control system	● Micro-processor control (Brushless motor) Speed, RCF, Time, g-sec, Acceleration & Deceleration, Temperature, 5 channel memories
Alarm display	● Lid open, Imbalance, Over speed, Abnormally high temperature Function for detecting an occurrence of electrical abnormality in motor, inverter, lid interlock and speed sensor, temperature sensor
Acceleration / Deceleration	● Three-level selectors; Rapid, Slow and Super Slow
Speed setting	● From 200 to 15,000rpm, 10rpm increments
Speed indication	● Digital display, From 0 to 15,500rpm, 10rpm increments
RCF setting	● From 10 to 20,630xg, 10xg increments (adjustable to actual rotation radius)
RCF indication	● Digital display, From 0 to 22,030xg, 10xg increments (adjustable to actual rotation radius)
Integrator setting and indication	● Digital display, From 1.00 to 9.99x10 ⁹ g-sec
Timer setting and indication	● Digital display, with Hold and Memory Flashing 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 increment indication from 1 min to 100 min, in 1 min increment setting / indication from 100 min to 990 min, in 10 min increments setting / in 1 min increment indication
Temperature setting and indication (chamber)	● Digital display, 1°C increments setting and indication from -20°C to 40°C with Pre-cooling
Refrigerant	● R134a
Power requirements	● Single phase AC110V±10%, 15A Single phase AC115V±10%, 15A Single phase AC220V±10%, 10A Single phase AC230V±10%, 10A
Rated voltage and Rated current	● 110V 9.1A, 115V 8.7A, 220V 4.6A, 230V 4.4A
Power consumption and Heat output	● 0.78kW 2.8MJ/h
Dimensions, weight	● 70(W) x 65(D) x 36(H)cm*, 102kg
Certificates of Conformity	● IEC 61010-2-020 CE Marking (AC220V and 230V Version)

(*1) Those of projections are not included.

All specifications and external appearance subject to change without notice.

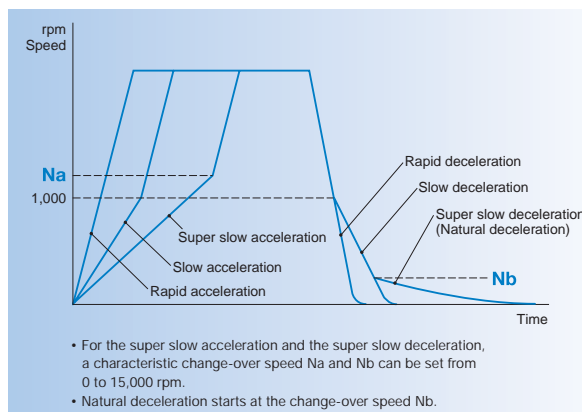
* On Model 5500 only use KUBOTA made rotor, adapter and tube rack. Do not attempt use rotors, adapters or tube racks made by other manufacturers.

* 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.

- **Acceleration and deceleration**
Acceleration and deceleration curve can be varied in three steps according to the sample and experimental conditions.

Acceleration/deceleration characteristics graph



Kubota has acquired Certification of ISO 9001 and ISO 13485.

 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.

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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