

Tabletop Refrigerated Centrifuge



5500

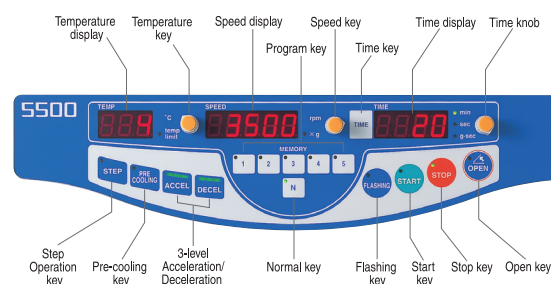
Various types of tubes can be centrifuged.

Features

- **Maximum speed 15,000rpm**
- **Maximum RCF 20,820xg**
- **Rapid acceleration**
10 sec to reach the maximum speed 15,000 rpm when AT-2018M micro rotor is used.
- **The temperature of sample is kept at 4°C.**
The ambient temperature is 25°C. See table of rotor for details.
- **Selective temperature indication/setting**
Whether the temperature of the chamber or the temperature of sample can be selected depending on the type and speed of the rotor.
- **Eco mode**
- **Motorized lid lock**
- **Biosealed 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-508C Fixed angle rotor).

Easy-to-use and convenient functions

- **Memory Flashing**
Spin-down time from 1 to 90 seconds is memorized. The flashing key enables to call up the memorized spinning time.
- **Pre-cooling**
Enables rotor to reach low temperature before experiments.
- **Compliance with GMP requirements**
Equipped with tachometer port to comply with GMP requirements. Actual rotor speed is easy to check.
- **Delay start function**
The operation automatically starts after the preset duration from pressing the START key. This function enables the fresh blood to start centrifugation exactly when erythrocytes coagulate.
- **RCF (xg) -set operation function and stepped centrifugal force function**
- **Integrator function that can attain optimization of the condition of centrifugation.**
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 drive shaft.**



⚠ Rotor has prescribed operating life cycle and years of operation, after that the rotor must be replaced. For more details, please contact us.

*** The number of times allowed for autoclaving is limited. For more details, please contact us.**

Micro rotor



AT-2018M
18 x 1.5/2mL



AT-2724M
Multi-angle rotor
4 types of tubes, 1.5/2mL, 0.5mL and 0.2mL PCR can be used without adaptors.

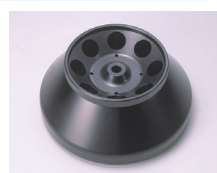


AT-2730M
Biosealed rotor
30 x 1.5/2mL
Good for anti-biohazard usage. The bio-hazard proof rotor is certified with the CAMR standard.

Fixed angle rotor



AT-508C
8 x 50/15mL conical tube
12mL and 50mL tubes can be used.



RA-508C
8 x 50/15mL conical tube
This rotor is not a tool-less rotor.

Plate rotor



PT-745MS, PT-21M, PT-89M
3 types of plate rotors can be used.

Swinging bucket rotor



ST-722M
Max. 3,500rpm/2,380xg
4 x 250mL



ST-2504MS
Max. 4,800rpm/4,300xg
4 x 250mL
Buckets are equipped with rotor. Sealing caps and o-rings are optional. (code no.055-0964)



ST-5004M
Max. 4,000rpm/3,080xg
4 x 500mL
Buckets and sealing caps are equipped with rotor.



ST-480M
Max. 3,500rpm/2,380xg
8 x 50mL



ST-504M
Max. 5,000rpm/4,860xg
4 x 50mL
50mL conical tube can be centrifuged at 5,000rpm.

Table of Rotors, Buckets and Tube Racks 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 1.5/2mL	9.5-11.0 x 36-42	15,000	20,630	—	—		
	18 x 0.5mL	7.0-7.9 x 25-34		18,110		055-7590		
	18 x 0.2mL PCR	5.9-6.3 x 20-24		15,850		055-0500		
AT-2724M	24 x 1.5/2mL	9.5-11.0 x 36-42	15,000	20,630	—	—		
	12 x 0.5mL	7.0-7.9 x 25-34		16,850		—		
	12 x 0.2mL PCR	5.9-6.3 x 20-24		14,840		—		
AT-2730M	30 x 1.5/2mL	9.5-11.0 x 36-42	14,000 *1	20,820	—	—		
	14 x 0.5mL	7.0-7.9 x 25-34		17,530		—		
	14 x 0.2mL PCR	5.9-6.3 x 20-24		16,430		—		
Fixed angle rotor RA-508C is not a tool-less rotor.								
AT-508C	8 x 12mL (Plastic) *2	15.7-16.4 x 102-105	6,000	5,110	—	055-1120		
	8 x 14mL *3	17 x 100		4,990		055-0550		
	8 x 15mL Conical tube	17 x 121		5,270		055-1280		
	8 x 50mL Conical tube	30 x 117		5,350		—		
	8 x 50mL (Plastic) *4	26.4-28.7 x 98-115	6,000	4,990	—	055-1110		
	Sartorius	Vivaspin 2		16.7 x 129		5,270	055-1280	
		Vivaspin 6		16.7 x 129		5,270	055-1280	
		Vivaspin 15R/20		30 x 117		5,350	—	
	Millipore	Amicon Ultra-4		17.3 x 124		6,000	5,270	055-1280
		Amicon Ultra-15		29.7 x 121		5,800	5,000	—
—		—	—	—	—			
RA-508C	8 x 12mL (Plastic) *2	15.9-16.5 x 97-120	10,000	12,970	—	055-1120		
	8 x 14mL *3	17 x 100		12,630		055-0550		
	8 x 15mL Conical tube	17 x 121		13,190		055-1280		
	8 x 50mL Conical tube	30 x 117		13,420		—		
	8 x 50mL (Plastic) *4	26.4-28.8 x 98-115	7,780	12,860	—	055-1110		
	Sartorius	Vivaspin 2		16.7 x 129		7,990	055-1280	
		Vivaspin 6		16.7 x 129		7,780	055-1280	
		Vivaspin 15R/20		30 x 117		6,680	5,990	
	Millipore	Amicon Ultra-4		17.3 x 124		7,540	7,500	055-1280
		Amicon Ultra-15		29.7 x 121		6,100	4,990	—
—		—	—	—	—			
Plate rotor								
PT-21M	6 x MTP *5	86 (W) x 130 (D) x 62 (H)	5,000	3,100	Equipped with rotor	—		
	2 x DWP *5					—		
PT-89M	8 x MTP *5	86 (W) x 130 (D) x 89 (H)	2,400	1,080	Equipped with rotor	055-6370		
	4 x DWP *5					—		
PT-745MS	12 x MTP *5	86 (W) x 128 (D) x 90 (H)	4,200	3,100	Equipped with rotor	055-6380		
	4 x DWP *5					—		
Swinging bucket rotor								
ST-722M	80 x 1.5/2mL	9.5-11 x 36-42	3,500	2,290	053-5820	055-4800		
	24 x 8mL CPT cell preparation tube *6	13.5-15.8 x 81-130		2,310		055-6900		
	48 x 5-10mL blood collection tube/15mL *7	12-16.8 x 72-110		2,300		055-0880		
	80 x 10mL glass tube	12-13.8 x 65-95		2,080		055-4740		
	32 x 15mL conical tube	17 x 121		2,330		055-4780		
	16 x 50mL conical tube	30 x 117		2,330		055-6070		
	8 x 50mL glass tube	27-36.4 x 85-110		2,330		055-4760		
	4 x 100mL glass tube	38-46.5 x 83-120		2,330		055-4770		
	4 x 175/200/225mL conical tube *8,9	61 x 118/61 x 130/61 x 137		2,330		055-4850		
	4 x 250mL *10	60-62 x 100-134.4		2,380		055-4850		
	8 x self-standing sputum tube	cap diam. Ø48		2,250		055-0430		
	12 x self-standing sputum tube	cap diam. Ø37		2,290		055-0440		
	16 x self-standing sputum tube	cap diam. Ø31		2,300		055-0450		
	68 x 5-7mL blood collection tube *12	12-13.7 x 62-110		2,300		055-0260		
	68 x 10mL blood collection tube/15mL	15-17.2 x 52-110		2,300		—		
	28 x 15mL conical tube	17 x 121		2,300		—		
ST-2504MS	36 x 1.5/2mL	9.5-11 x 36-42	4,800	4,250	Equipped with rotor	055-1190		
	28 x 5-10mL blood collection tube/15mL *7	12-17.2 x 72-110		4,150		055-1140		
	16 x 15mL conical tube	17 x 121		4,280		055-1160		
	4 x 50mL conical tube	30 x 117		4,250		055-1170		
	4 x 50mL glass tube	27-36.4 x 85-110		4,150		055-1150		
	4 x 100mL glass tube	38-46.5 x 113-120		4,250		055-1200		
	4 x 175/225mL conical tube *8,11	61 x 118/61 x 137		4,250		—		
	4 x 250mL *10	60-62 x 100-134.4		4,300		—		
4 x self-standing sputum tube	cap diam. Ø48	4,250	055-1210					
ST-5004M	72 x 1.5/2mL	9.5-11 x 36-42	4,000	3,040	Equipped with rotor	055-0770		
	48 x 5-10mL blood collection tube/15mL *7	12-17.2 x 72-110		2,970		055-0730		
	28 x 15mL conical tube	17 x 121		3,060		055-0750		
	12 x 50mL conical tube	30 x 117		3,040		055-0760		
	12 x 50mL glass tube	27-36.4 x 85-110		2,990		055-0740		
	4 x 100mL glass tube	38-46.5 x 113-120		2,970		055-1180		
	4 x 175/200/225mL conical tube *8,9,11	61 x 118/61 x 130/61 x 137		3,080		055-0780		
	4 x 250mL *10	60-62 x 100-134.4		3,080		055-0780		
	4 x self-standing sputum tube	cap diam. Ø48		3,020		055-0810		
	8 x self-standing sputum tube	cap diam. Ø37		3,020		055-0800		
12 x self-standing sputum tube	cap diam. Ø31	3,020	055-0790					
4 x 500mL *13	85 x 135	3,080	—					
ST-480M	48 x 1.5/2mL	9.5-11 x 36-42	3,500	1,880	053-5040	055-4830		
	16 x 5-10mL blood collection tube/15mL *7	12-17 x 65-105		2,220		053-4930		
	4 x 7-10mL blood collection tube/15mL *14,15	12-17.2 x 86-110		2,230		053-7110		
	8 x 7-10mL blood collection tube/15mL *14,15	12-17.2 x 86-110		2,230		053-7150		
	32 x 7-10mL blood collection tube/15mL *14,15	12-17.2 x 86-110		2,270		053-7130		
	4 x 15mL conical tube	17 x 121		2,370		053-5010		
	8 x 15mL conical tube	17 x 121		2,370		053-5020		
	16 x 15mL conical tube	17 x 121		2,340		053-4980 *16		
	4 x 50mL conical tube	30 x 117		2,380		053-5010		
	8 x 50mL conical tube	30 x 117		2,380		053-0040 *16		
4 x 50mL glass tube	27-38 x 100-110	2,270	053-7110					
8 x 50mL glass tube	27-38 x 100-110	2,270	053-7150					
4 x 50mL Oak ridge tube	27-29 x 100-108	2,180	053-7110					
ST-504M	4 x 15mL conical tube	17 x 121	5,000	4,840	053-4970	055-1280		
	4 x 50mL conical tube	30 x 117		4,860		053-0050 *16		
	4 x 15mL glass tube	15-17.2 x 86-110		4,840		053-7080		
	4 x 50mL glass tube	27-38 x 100-110		4,640		053-7080		
	4 x 50mL Oak ridge tube	27-29 x 100-108		4,440		053-7080		

*1 Cooling down to 6°C or below is possible at this speed.
 *2 This tube is Nalgene PPCO tube (catalogue No.3110-0120, 3117-0120).
 *3 This tube is BD Falcon's PP tube (catalogue No.352059).
 *4 This tube is Nalgene tube (catalogue No.3110-0500/PPCO, 3110-9500/PPCO, 3117-9500/PC).
 *5 Test the strength of plates before centrifuging. The bottom and lower plate might be damaged.
 *6 The blood collection tubes which can be used are Vacutainer 8mL CPT by BD.
 *7 5-10mL blood collection tubes which can be used are insepack II and ST series by SEKISUI, Venocject II by TERUMO, Neo tube by NIPRO and Vacutainer by BD. The tubes for Flow cytometry are applicable.
 *8 175/225mL Falcon conical tubes (catalogue no.352076/352075) require cushions (catalogue no.352090).
 *9 200mL Nalgene conical tubes (catalogue No.376813) require cushions (catalogue No.377585). Maximum RCF is 3,020 xg when ST-5004M rotor is used.
 *10 Nalgene, Helolab, and Corning 250mL Flat bottom bottles are applicable.
 *11 Sealing caps can not be used with 200/225mL conical tubes.
 *12 5-7mL blood collection tubes which can be used are insepack II and ST series by SEKISUI, Venocject II by TERUMO, Neo tube by NIPRO and Vacutainer by BD. The tubes for Flow cytometry can be used.
 *13 500mL bottles (code No.K15501C/PPCO) can be used.
 *14 7-10mL blood collection tubes which can be used are insepack II and ST series by SEKISUI, Venocject II by TERUMO, Neo tube by NIPRO and Vacutainer by BD.
 *15 Optional cushions (code No.024-1400) are required.
 *16 Sealing caps and O-ring are equipped with buckets.

Specifications

Model 5500

- Maximum Speed ● 15,000 rpm
- Maximum RCF ● 20,820 xg
- Maximum capacity ● 2,000 mL
- Control system ● Inverter microprocessor control
- Alarm display ● Lid open, imbalance, over speed, rotor set state, function for detecting an occurrence of electrical abnormality in motor, inverter, lid interlock, speed sensor and temperature sensor
- Acceleration/Deceleration ● 3 steps: rapid, slow, super slow
- Speed setting and indication ● Digital display, 10 rpm increments
- RCF setting and indication ● Digital display, 10 xg increments
- Integrator setting and indication ● Digital display, from 1.00 to 9.99 x 10⁹ g·sec
- Step centrifugation ● Speed, RCF, time, temperature, acceleration/deceleration, 1 channel memory
- Timer setting and indication ● Digital display, HOLD (∞) and memory flashing
 - 1 to 100 sec. / 1 sec. increment
 - 100 to 990 sec. / 10 sec. increments setting and 1 sec. increment indication
 - 1 to 100 min. / 1 min. increment
 - 100 to 990 min. / 10 min. increments setting and 1 min. increment indication
- Temperature setting and indication ● Digital display, -20°C to 40°C, 1°C increment
- Refrigerant ● R134a
- Power requirements ● Single phase 110/115±10% V 50/60Hz, 15A
Single phase 220/230±10% V 50/60Hz, 10A
- Rated voltage and rated current ● 110V 8.1A, 115V 8.0A, 220V 4.3A, 230V 4.1A
- Power consumption and heat output ● 110/115V 760W, 2.7MJ/h, 220/230V 740W, 2.7MJ/h
- Size, weight ● 70(W) x 65(D) x 36(H) cm · 97 kg, height when the lid is open: 88 cm^{*1}
- Conforming standard ● IEC 61010-2-020
CE Marking (AC 220V and 230V version)

(*1) Those of projections are not included.

All specifications and external appearance subject to change without notice.

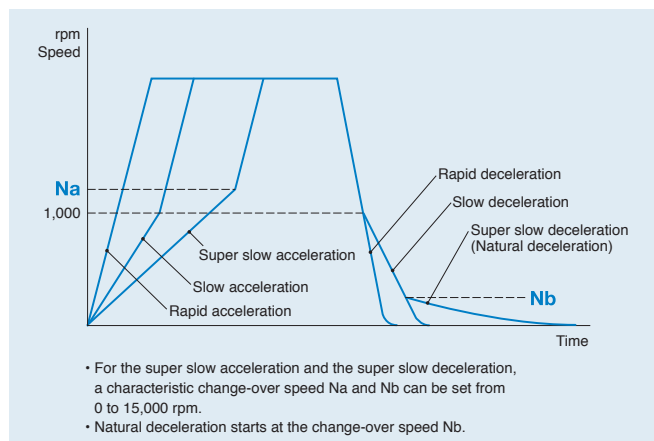
* Use only rotors, adaptors and tube racks made by KUBOTA. Do not attempt to use rotors, adaptors or tube racks made by other manufactures.

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

•Acceleration and deceleration

Acceleration and deceleration curve can vary in three steps according to the sample and experimental conditions.

Acceleration/deceleration characteristics graph



Kubota has acquired ISO 9001 and ISO 13485 certification.

Precautions for use

Products in this catalogue are designed for use only by people who have the requisite technical knowledge, and must always be used with considerable care and only for their intended purpose. People who do not have adequate technical knowledge or training should only use the products under appropriate supervision by someone with expert knowledge, or else accidents are likely to occur.



Please immediately stop using the products in any of the cases listed on the right.

- The rotor or buckets appear to be damaged or corroded.
- When the replacement period (years of operation, operating lifetime) of a rotor has passed.
- The equipment emits a burning smell or becomes abnormally hot.
- You receive a weak electric shock when you touch the equipment with your bare hands.
- When any other abnormality or indication of failure is noticed.

IMPORTANT

If any of the cases listed at the left occurs, immediately turn off the power, disconnect the power cable plug or connecting terminals from the main power outlet, place a "Do not use" sign on the unit, and contact the nearest branch of Kubota Corporation.

Safety Precautions

To use the equipment safely, be sure to read the instruction manual carefully before you start operations.

Do not misplace the instruction manual. Keep the instruction manual nearby so that you can refer to it whenever necessary.

- The term of supplying spare parts for repair is 7 years after discontinuation of production (except spare parts which we are unable to procure).
- This catalogue is not for distribution in the USA, Canada and Mexico as products shown are not for sale in these countries.

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