

Universal Benchtop Centrifuge

S500T


Universal Refrigerated Centrifuge

S500FR

Refrigerated



New feature of the S500 Serie

Carefully Examined Fail-Safe Function Quicker Imbalance Detector

The S500 series have a new function to detect imbalances quicker at lower speed than before.
Achieving Zero Breakage of Centrifugal Tubes
Reduction of Repair Costs and Repair Time



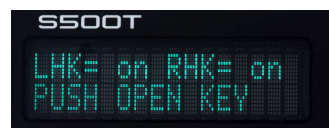
Mixed Loading **MiX**

Mixed Loading KUBOTA achieved Mixed Loading where two different types of buckets or tube racks can be centrifuged at the same time. Moreover, frequently used combinations of buckets are offered as a set as standard so that the accessories become more affordable



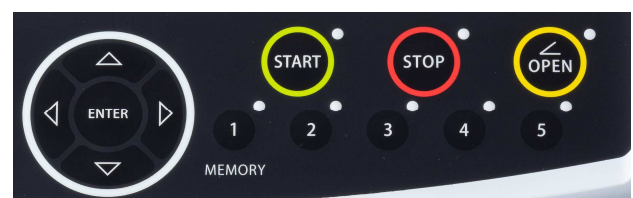
Self-Check Function

Before using the centrifuge, you can check with the centrifuge for any defects in the centrifuge's safety features.



Five short-cut program keys for direct access (only S500T)

S500FR is 3-channel direct memory



Responding to User Needs in a Multitude of Ways



Equipped with a VFD luminous display

- A technology exclusive to Japan, the VFD (vacuum fluorescent display), is used.
- High contrast and brightness provide clear visibility at a distance.
The visibility of an electronic display generally depends on the contrast rate of dot matrix units. In contrast, the VFD segments are self-illuminating and remain lit when other parts are turned off.
- With a minimum viewing angle of 126°, the VFD information remains easy to read from side to side.

Motorized lid lock

- A newly developed motorized lid lock system.
- A light touch is all that is needed to activate the lid motor and lock it automatically.



Power-saving mode



- S500FR automatically stops the refrigeration unit and turns off the display. Power consumption in this mode is approximately 7 W.
- S500T automatically turns off the display. Power consumption in this mode is approximately 7 W.

Viewport



- It responds to speed measurement for inspections by using a tachometer.

Rotor durability

- Rotors and buckets of the centrifuges are made of metal, which consists of stainless steel and aluminum.
- If a metal plate is bent and straightened over and over, it will eventually get broken due to metal fatigue.
- Rotors and buckets undergo repeated “bending and straightening” during spin-up and spin-down.
After a specified period of use or number of operations is reached, these parts may get broken due to metal fatigue.
- To use KUBOTA’s products safely, we ask that you replace any rotor that has reached the end of its life time.
We appreciate your understanding and cooperation.

KUBOTA’s Dedication to Safety

- KUBOTA manufactures prototypes at the development phase and implements durability tests based on actual use conditions. Only products that pass the strict durability tests can proceed to the next stage.
- After durability tests, we produce additional prototypes and perform field tests in workplaces with actual users. Feedback from these users is then incorporated in the products.
- Experienced engineers perform release inspections. Every unit is inspected carefully by activating the centrifuge and carefully monitoring its sounds and vibrations.

Rotor specifications – Swing rotor

ST-724M



Product name or code No.	Number	Max. speed (rpm)	Max. RCF (xg)	Bucket code No.	Tube Rack, Adaptor Code No.
10mL Gals	80	3,500	2,080	053-5820	055-4740
5 to 10mL Blood collection tube/15mL	48	3,500	2,300	053-5820	055-0880
15mL Conical tube	32	3,500	2,330	053-5820	055-4780
50mL Conical tube	16	3,500	2,330	053-5820	055-6070
175/200/225mL Conical tube	4	3,500	2,330	053-5820	055-4850
250mL bottle	4	3,500	2,380	053-5820	055-4850
5-7mL Blood collection tube	68	3,500	2,300	053-5840	055-0260
10mL Blood collection tube/15mL	68	3,500	2,300	053-5840	—

ST-2504MS



Product name or code No.	Number	Max. speed (rpm)	Max. RCF (xg)	Bucket code No.	Tube Rack, Adaptor Code No.
5 to 10mL Blood collection tube/15mL	28	4,800	4,150	Attachment to a rotor	055-1140
15mL Conical tube	16	4,800	4,280		055-1160
50mL Conical tube	4	4,800	4,250		055-1170
175mL Conical tube	4	4,800	4,250		(352076), (352090)
250mL bottle	4	4,800	4,300		—

ST-5004M (only S500FR)



Product name or code No.	Number	Max. speed (rpm)	Max. RCF (xg)	Bucket code No.	Tube Rack, Adaptor Code No.
5 to 10mL Blood collection tube/15mL	48	4,000	2,970	Attachment to a rotor	055-0730
15mL Conical tube	28	4,000	3,060		055-0750
50mL Conical tube	12	4,000	3,040		055-0760
175/200/225mL Conical tube	4	4,000	3,080		055-0780, (352090)
250mL bottle	4	4,000	3,080		055-0780
500mL bottle	4	4,000	3,080		—

ST-480M



ST-504M



Product name or code No.	Number	Max. speed (rpm)	Max. RCF (xg)	Bucket code No.
5 to 10mL Blood collection tube/15mL*	16	3,500	2,220	053-4930
7 to 10mL Blood collection tube/15mL*	32	3,500	2,270	053-7130
15mL Conical tube*	16	3,500	2,340	053-1590
50mL Conical tube*	8	3,500	2,380	053-5020
50mL Conical tube (only ST-504M)	4	5,000	4,860	053-4970

*only ST-480M

Rotor specifications – Plate rotor, Angle rotor



Pt-22M	PT-745MS (only S500FR)	PT-89M
Max. 5,000rpm	Max. 4,200rpm	Max. 2,400rpm
Max. 3,100xg	Max. 3,100xg	Max. 1,080xg
MTPx6 / DWPx2	MTPx12 / DWPx4	MTPx8 / DWPx4



AT-508C	RA-508C (only S500FR)
Max. 6,000rpm	Max. 8,500rpm
Max. 5,350xg	Max. 9,690xg
50mL Conical Tube x 6	50mL Conical Tube x 6



Specification



S500T

Product name	Universal Benchtop Centrifuge
Swing rotor	
Max. capacity	15mL x 68(ST-724M)
Max. speed (rpm)	5,000(ST-504M)
Max. RCF (xg)	4,860(ST-504M)
Angle rotor	
Max. capacity	50mL Conical tube x 8(AT-508C)
Max. speed (rpm)	6,000
Max. RCF (xg)	5,350
Size	44(W)x53(D)x32(H)cm Height with opened lid 76cm
Weight	110V:37kg 220/230V:39kg
Power consumption calorific value	520W, 1.9MJ/h (Power-saving mode:Approx. 7W)
Power requirement	Single phase 110 ± 10% V 50/60Hz, 15A Single phase 220 ± 10% V 50/60Hz, 8A Single phase 230 ± 10% V 50/60Hz, 8A
Rated voltage, rated current	110V 7A 220V 3.2A, 230V 3.1A
Conforming standard	IEC61010-2-020
Speed setting range	200 – 6,000rpm 10 or 100rpm step
Timer setting range	1sec – 99h59min
	seconds: 1 second step
	minutes: 1 minute step
	hour: 1 hour step
Temperature setting range	–
Refrigerated	–
Program memory	99 channels at the maximum (5 for direct invocation using the panel button)
Acceleration/ deceleration	3 ways of switching



S500FR

Product name	Universal Refrigerated Centrifuge
Swing rotor	
Max. capacity	500mL x 4(ST-5004M)
Max. speed (rpm)	5,000(ST-504M)
Max. RCF (xg)	4,860(ST-504M)
Angle rotor	
Max. capacity	50mL Conical tube x 8(RA-508C)
Max. speed (rpm)	8,500
Max. RCF (xg)	9,690
Size	54(W)x65(D)x84(H)cm Height with opened lid 136cm
Weight	116kg
Power consumption calorific value	690W, 2.5MJ/h (Power-saving mode:Approx. 7W)
Power requirement	Single phase 110 ± 10% V 50/60Hz, 15A Single phase 220 ± 10% V 50/60Hz, 10A Single phase 230 ± 10% V 50/60Hz, 10A
Rated voltage, rated current	110V 8.4A 220V 4.3A, 230V 4.1 A
Conforming standard	IEC61010-2-020
Speed setting range	200 – 8,500rpm 10 or 100rpm step
Timer setting range	1sec – 99h59min
	seconds: 1 second step
	minutes: 1 minute step
	hour: 1 hour step
Temperature setting range	-10 – +40°C, 1°C step
Refrigerated	R134a Quantity 0.28kg GWP 1,430
Program memory	99 channels at the maximum (3 for direct invocation using the panel button)
Acceleration/ deceleration	3 ways of switching

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