

KUBOTA

Table Top Micro Refrigerated Centrifuge



3520

www.centrifuge.jp

Useful features and their merits

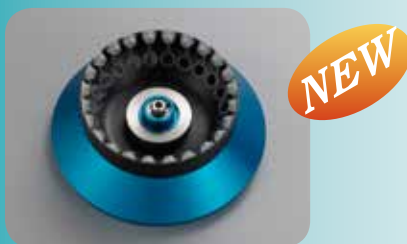
- Acceleration and deceleration in 14 seconds
(when using MA-2024 Rotor)
- Sample temperature is maintained at 4°C with a temperature adjustment function
- Memory flashing function for easy spin-down
(patented)
The lid will automatically open after the flashing process is completed.
- Easy-to-use operation panel with large control knobs
- Exhaust port located at the upper rear part of the centrifuge, to prevent contamination and in consideration of those who dislike offensive exhaust
- Space-saving design with a width of 29 cm and depth of 48.4 cm
- 'Power-saving mode' selectable
When left unused for 10 minutes, the freezer centrifuge will automatically stop and the display will turn off.
Power consumption is as low as approx. 35 W in energy-saving mode.



Designed for easy operation from the researchers' viewpoint

Specialized rotors for respective applications

- **Fast acceleration and deceleration. Compatible with the spin column — MA-2024 Rotor**
Spin columns can be used in the microtube (optional: adaptor required).



- **Shield rotor can attain processing of 24 x 1.5/2.0 mL tubes — MA-2724 Rotor**
0.2-mL PCR tubes may also be centrifuged.



Rotor, Adaptor Table for Model 3520



MA-2024

24 x 1.5/2mL

Rotor lid

Code No. 028-0440 (optional)

Spin column adaptor

Code No. 028-1360 (optional)

NEW

New arrival of a convenient adaptor

Spin columns may be mounted on the microtube. The tube caps will not be torn off by centrifugal force.



Note: The number of autoclave repetition is limited. Please refer to the instruction manual.

Rotor Name	Nominal Capacity	Tube Size (mm) diam. x length	Maximum Speed rpm	Maximum RCF x g	Adaptor Code No.
MA-2024	24 x 1.5/2mL	9.5~11 x 36~42	15,000	20,630	—
	24 x 0.5mL	7~7.9 x 25~34	15,000	18,360	055-7590
	24 x 0.4mL	5.4~6.1 x 26~48	15,000	20,380	055-7580
	24 x 0.2mL PCR *1	5.9~6.3 x 20~24	15,000	16,100	055-0500
	24 x Tube for spin column *2	9.5~12.3 x 36~48.2	15,000	20,380	NEW 028-1360



MA-2724 Shield rotor

24 x 1.5/2mL, 12 x 0.5mL, 12 x 0.2mL PCR



Shield rotor lid

Code No. 028-1370 (optional)

- This shield rotor prevents sample leakage.
- Four types of tubes, 2mL, 1.5mL, 0.5mL, and 0.2mL PCR, can be used without adaptors.

Note: The number of autoclave repetition is limited. Please refer to the instruction manual.

Rotor Name	Nominal Capacity	Tube Size (mm) diam. x length	Maximum Speed rpm	Maximum RCF x g	Adaptor Code No.
MA-2724	24 x 1.5/2mL 12 x 0.5mL 12 x 0.2mL PCR *3	9.5~11 x 36~42	15,000	20,630	—
		7~7.9 x 25~34	15,000	16,850	—
		5.9~6.3 x 20~24	15,000	14,840	—
	24 x 0.5mL	7~7.9 x 25~34	15,000	18,360	055-7590
	24 x 0.4mL	5.4~6.1 x 26~48	15,000	20,380	055-7580
	24 x 0.2mL PCR *1	5.9~6.3 x 20~24	15,000	16,100	055-0500



MA-512

12 x 5mL

Suitable for applications where 2 mL is insufficient in terms of capacity

Note: The number of autoclave repetition is limited. Please refer to the instruction manual.

Rotor Name	Nominal Capacity	Tube Size (mm) diam. x length	Maximum Speed rpm	Maximum RCF x g	Adaptor Code No.
MA-512	12 x 5mL *4	15 x 59	15,000	20,630	—

*1 The maximum speed cannot be used with 0.2-mL PCR tubes, due to their low resistance to centrifugal force.
 *2 Millipore Amicon Ultra-0.5, Ultrafree-MC, Microcon Tubes can be used:
 Up to 12 Millipore Microcon Tubes, Millipore Ultrafree-0.5, or Qiagen tubes.
 *3 Up to twelve 0.5-mL tubes and 0.2-mL PCR tubes can be used inside the rotor. They can be used simultaneously with up to 24 tubes in the outer holes.
 *4 BIO-BIK 5-mL sampling tube and Watson 5-mL mega-tube can be used.

Specifications

Model 3520

- Maximum Speed ● 15,000rpm
- Maximum RCF ● 20,630xg
- Maximum Capacity ● 60mL
- Control system ● Micro-processor control (Brushless motor)
Speed, RCF, Time, Temperature, 3 channel memories
- Alarm display ● Lid open, Imbalance, Over speed, Abnormal High Temperature
Function for detecting an occurrence of electrical abnormality in speed sensor, Inverter, lid lock, motor, temperature sensor
- Acceleration / Deceleration ● Rapid, Slow, 4 ways of switching with natural deceleration (commencement speed of natural deceleration changable)
- Speed setting ● From 300 to 15,000rpm in 100rpm increments
- Speed indication ● Digital display, From 0 to 15,300rpm in 100rpm increments
- RCF setting ● From 100 to 20,630xg in 100xg increments (Actual rotation radius can be set.)
- RCF indication ● Digital display, From 0 to 21,400xg in 100xg increments (Actual rotation radius can be set.)
- Timer setting and indication ● Digital display, with Hold and with Memory Flashing
from 1 sec to 99 sec, in 1 sec increment setting / from 0 sec to 99 sec, in 1 sec increment indication
from 1 min to 99 min, in 1 min increment setting / from 0 min to 99 min, in 1 min increment indication
- Setting the sound that informs the end of the operation ● 5 kinds + Sound none
- Temperature setting and indication ● Digital display in 1°C increments, with pre-cooling
from -9°C to 40°C setting / from -10°C to 43°C indication
- Refrigerant ● R-134a
- Power requirements ● Single phase AC110V±10%, AC115V±10%, 50/60Hz, 15A
Single phase AC220V±10%, 230V±10%, 50/60Hz, 10A
- Rated voltage and Rated current ● 110V 4.2A, 115V 4.0A, 220V 2.1A, 230V 2.0A
- Power consumption and Heat output ● 460W 1.7MJ/h
- Dimensions, weight ● 29(W) x 48.4(D) x 28.4(H)cm^(※1), 110/115V 30kg, 220/230V 30kg
- 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 3520 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.

Kubota has acquired ISO 9001 and ISO 13485 certification.

NOTE

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



**DISCONTINUE
USE
INDICATIONS**

Always discontinue use if any of the conditions listed at right are evident.

- The rotor or bucket appears to be damaged or corroded.
- The equipment emits a burnt smell.
- You receive a minor electric shock when you touch the equipment with your bare hand.
- Any other abnormality or indication of failure is noticed.

IMPORTANT

In the event of any observed abnormality in the equipment or its parts, to prevent occurrence of functional failure or accidents, immediately turn off the power switch, disconnect the power cable plug from the mains socket and contact your local distributor or Kubota Corporation if there is no local distributor in your neighbourhood.



Safety Precautions

For your safe use of the equipment, be sure to read the instruction manual carefully before you start operations.

Do not misplace the instruction manual. Keep the instruction manual nearby so 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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