

**Compact Table Top Centrifuge** 



**Compact Table Top Refrigerated Cent**rifuge



### Model 2420

## **Small-footprint, and loaded with features Two Types of Swinging Bucket 4,000rpm Rotor**

- Multiple swinging bucket rotors for 24 x 15mL tubes
- Plate rotor for 2 x PCR plates / 6 x Micro-plates / 2 x Deep-well plates

### The small footprint Model 2420 can centrifuge 24 x 15mL tubes at 4,000rpm.

Compact size, only 35cm (W) x 42cm (D) x 32cm (H)

### Rotor for PCR plates / Micro-plates / Deep-well plates can be used.

 $2 \times PCR$  plates,  $6 \times Micro$ -plates or  $2 \times Deep$ -well plates can be centrifuged at a maximum of 1,790  $\times g$  with the RMP-206 rotor.



In the event of breakage, all fragments will be safely retained inside the centrifuge unit. Interlocking parts are protected against mechanical impact and employ a two-stage electrical protection circuit.





No air intake vent on top of lid. To prevent inspiration of foreign material, the air intake vent is built into the lid. Plastic tachometer port on the top of the lid enables easy checking of actual rotor speed, and complies with GMP requirements.





Image of bucket. Comes with sealing cap (included with bucket).

Adaptor for 15mL Conical tubes Code No.055-1280 (Patent pending)

### 4 x 50mL Conical tubes Code No.053-0040

\* Autoclave parameters should not be exceeded. Refer to operation and service manual.

### **Useful functions for easy operation**

### Three available memory settings, with one key save and recall operation

The memory function makes repetitive operations using the same speed and time values easy.

Numerous detectors ensure safe, reliable operation. If trouble is detected, operation stops immediately.

#### Buzzer sounds at the end of operation

Five different buzzer sounds allow easy discrimination when any centrifuge operation ends among more than one centrifuge.

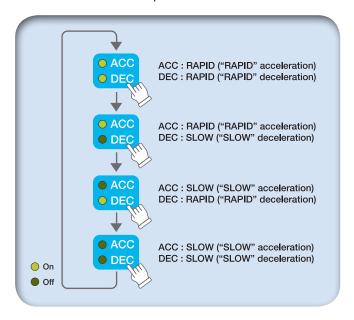
#### **Complies with GMP requirements**

The tachometer port on the top of the lid enables easy checking of actual rotor speed, and complies with GMP requirements.

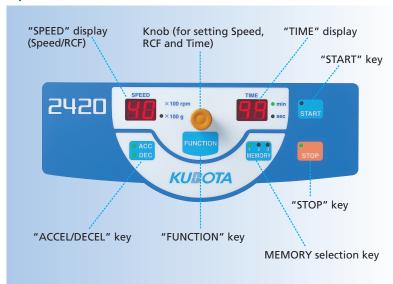
Actual rotor radius can be set, allowing accurate display of RCF values.

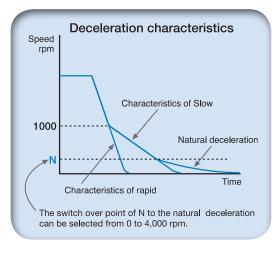
#### **Acceleration/Deceleration Function**

Rapid/slow acceleration and rapid/slow deceleration can be selected to suit sample type and experimental conditions. The button operations are shown below.



### **Operational Panel**





#### **RMP-206 Plate Rotor**

#### 6 x Micro-plates



Many researchers want to use microplates so that large numbers of samples can be easily centrifuged using less energy and less time. The 2420 can use the RMP-206 rotor for centrifuging 6 x Micro-plates at 1,790 x g.

\*Model 2800 can also use the RMP-206 rotor.

st Autoclave parameters should not be exceeded. Refer to operation and service manual.

### Model 2800

# Table-top refrigerated centrifuge with a small footprint Two Types of Swinging Bucket 4,000rpm Rotor

- Multiple swinging bucket rotors for 24 x 15mL tubes
- Plate rotor for 2 x PCR plates / 6 x Micro-plates / 2 x Deep-well plates

### The small footprint Model 2800 can centrifuge 24 x 15mL tubes at 4,000rpm.

Compact size, only 37cm (W) x 64cm (D) x 37cm (H), and refrigerated

### Rotor for PCR plates / Micro-plates / Deep-well plates can be used.

 $2 \times PCR$  plates,  $6 \times Micro$ -plates or  $2 \times Deep$ -well plates can be centrifuged at a maximum of 1,790  $\times g$  with the RMP-206 rotor.

## Sample temperature is maintained at 4°C at maximum speed (25°C. ambient temperature)



In the event of breakage, all fragments will be safely retained inside the centrifuge unit. Interlocking parts are protected against mechanical impact and employ a two-stage electrical protection circuit.



Plastic tachometer port on the top of the lid enables easy checking of actual rotor speed, and complies with GMP requirements.





Table for centrifuge, with casters and adjuster (Optional) (Code No.047-3820)
Size: 41cm (w) x 64cm (d) x 46cm (h)



4 x 50mL Conical tubes Code No.053-0040

Image of bucket. Comes with sealing cap (included with bucket). Adaptor for 15mL Conical tubes Code No.055-1280 (Patent pending)



RMP-206 Plate Rotor 6 x Micro-plates

\* Autoclave parameters should not be exceeded. Refer to operation and service manual.

### **Useful functions for easy operation**

Three available memory settings, with one key save and recall operation.

Numerous detectors ensure safe, reliable operation. If trouble is detected, operation stops immediately.

Five different buzzer sounds allow easy discrimination when any centrifuge operation ends among more than one centrifuge.

#### **Complies with GMP requirements**

Actual rotor speed can be measured using the tachometer port on the top of the lid.

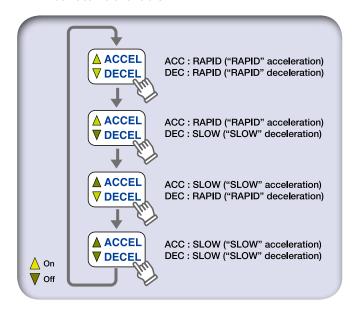
Actual rotor radius can be set, enabling accurate display of RCF values.

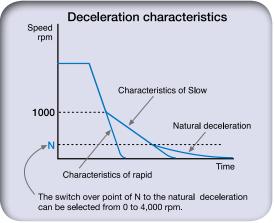
Pre-cooling allows rotors to reach low temperature before experiments.

Memory flashing enables easy spin down. (Patented)

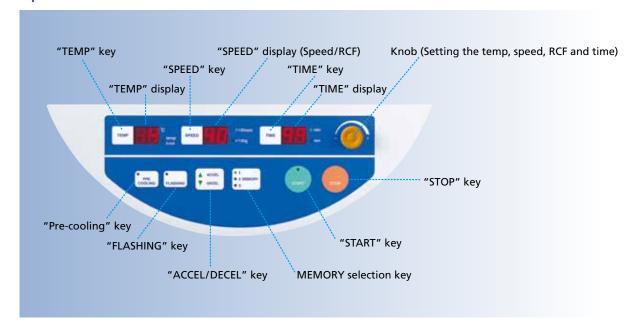
#### **Acceleration/Deceleration Function**

Rapid/slow acceleration and rapid/slow deceleration can be selected to suit sample type and experimental conditions. The button operations are shown below. RMP-206 rotor is available.

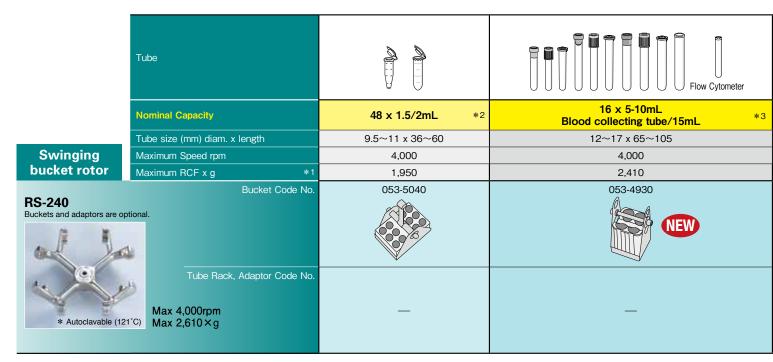




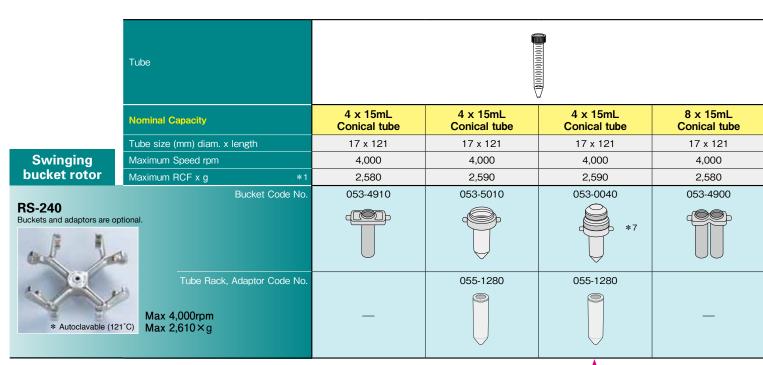
### **Operational Panel**



### **Rotor, Bucket, Tube Rack Table for Model 2420/2800**



<sup>\*</sup> The number of times allowed for autoclaving are limited. Please refer an instruction manual.



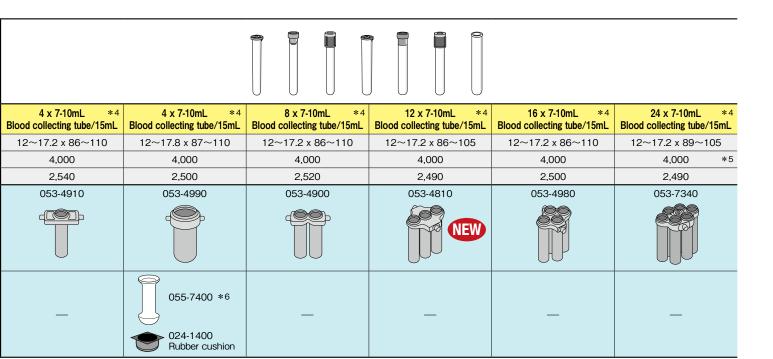
 $<sup>\</sup>boldsymbol{\ast}$  The number of times allowed for autoclaving are limited. Please refer an instruction manual.

Equipped with sealing caps (patent pending)

Micro-plate rotor
RMP-206
* Autoclavable (121°C)

Test plates	Nominal Capacity	Plate size (mm)	Maximum Speed rpm	Maximum RCF x g	Bucket Code No.
	*8 6 x Micro-plates 2 x PCR plates	- 86(W) x 128(D) x 52(H)	4,000	1,790	Equipped with rotor
hummin	2 x Deep-well plates		4,000	1,790	Equipped with rotor

 $<sup>\</sup>begin{tabular}{ll} * The number of times allowed for autoclaving are limited. Please refer an instruction manual. \\ \end{tabular}$ 



4 x 50mL (glass)	4 x 50mL Conical tube	4 x 50mL Conical tube				
27~37 x 95~110	30 x 117	30 x 117				
4,000	4,000	4,000				
2,540	2,610	2,610				
053-4990	053-0040	053-5010				
	*7					
	_	_				
<u> </u>						
Equipped with sealing caps (patent pending)						

- To show the RCF exactly, input the rotation radius. At the factory, the rotation radius is pre-set at 14.6cm. The above Maximum RCF is the calculated value at the maximum speed at each rotation radius.
- Tube support can be produced for special tube sizes. Contact our distributor.
- **\***3 5-7mL Blood collecting tubes made by SEKISUI (Insepack II), Termo (Venoject II), Nipro (Neotube) or Beckton Dickinson (Vacutenar) can be used.
- **\***4 7-10mL Blood collecting tubes made by SEKISUI (Insepack II), Termo (Venoject II), Nipro (Neotube) or Beckton Dickinson (Vacutenar) can be used.
- In the case of 15mL taper tubes, please operate at 3,000rpm or less. Bucket 053-7340 is exclusively used with 2420/2800. In case of using glass tube, rubber cushion 024-1400 is necessary. **\***5
- **\***6
- **\***7 This is sealing-bucket and it is equipped with sealing cap and O-ring (silicon). Autoclavable at 121°C
- \*8 Verify plate strength before centrifuging. Plates in lower position may fracture.

### **Specifications**

#### Model 2420

Maximum Speed ● 4,000 rpm Maximum RCF ● 2,610 xg

Maximum Capacity • 360 mL

Control system • Microprocessor control (brushless motor)

Speed, RCF(g), Time, Acceleration and Deceleration, 3 memory banks

Alarm display • Lid open, Imbalance, Over speed, Detected electrical abnormality in motor, inverter, lid interlock and speed sensor

Acceleration/Deceleration • Two selectable rates: Rapid, Slow, 4ways of setting

Speed setting • From 200 to 4,000 rpm, 100 rpm increments

Speed indication • Digital display, from 0 to 4,300 rpm, 100 rpm increments

RCF setting • From 100 to 2,600 xg, 100 xg increments

RCF indication ● Digital display, from 0 to 3,000 xg, 100 xg increments

Timer setting and indication • Digital display, with Hold

1 second to 99 seconds, 1 sec increments 1 minute to 99 minutes, 1 min increments

Sounds for informing centrifuging stop • 5 types and no sounding Power requirements • Single phase 50/60Hz, 110~115V±10%, 8A

Single phase 50/60Hz, 220~230V±10%, 5A

Rated voltage and rated current • 110V/115V 2.5A, 220V/230V 1.3A Power consumption and Heat output • 180W 0.65MJ/h

Dimensions, weight ● 35cm x 42cm x 32cm (WxDxH)\*1, 24kg

Certificates of conformity • IEC 61010-2-020 CE Marking (220V/230V)

#### **Model 2800**

Maximum Speed ● 4,000 rpm

Maximum RCF ● 2,610 xg

Maximum Capacity • 360 mL

Control system • Microprocessor control (brushless motor)

Speed, RCF(g), Time, Temperature, Acceleration and Deceleration, 3 memory banks

Lid open, Imbalance, Over speed, Abnormally high temperature,

Detected electrical abnormality in motor, inverter, lid interlock, speed sensor and temperature sensor

Acceleration/Deceleration ● Two selectable rates: Rapid, Slow, 4 ways of setting

Speed setting • From 300 to 4,000 rpm, 100 rpm increments

Speed indication . Digital display, from 0 to 4,300 rpm, 100 rpm increments

RCF setting • From 100 to 2,600 xg, 100 xg increments

RCF indication ● Digital display, from 0 to 3,000 xg, 100 xg increments

Timer setting and indication ● Digital display, with HOLD function (continuous operation) and flashing

1 second to 99 seconds, 1 sec increments 1 minute to 99 minutes, 1 min increments

Sounds for informing centrifuging stop • 5 types and no sounding

Temperature setting/indication ● Digital display, -9°C to +40°C, 1°C increments, Pre-cooling

Refrigerant • R134a (CFC free)

Power requirements • Single phase 50/60Hz, 110V±10%, 115V±10%, 15A Single phase 50/60Hz, 220V±10%, 230V±10%, 10A

Rated voltage and Rated current • 110V 4.5A, 115V 4.4A, 220V 2.4A, 230V 2.3A

Power consumption and Heat output . 380W 1.4MJ/h

Dimensions, weight ● 37cm x 64cm x 37cm (WxDxH)\*1, 110V/115V 48kg, 220V/230V 51kg

Certificates of conformity ● IEC 61010-2-020 CE Marking (220V/230V)

(\*1) Not including projections

All specifications and external appearance are 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 manufacturers.

\* Follow all instructions in the relevant Instruction & Service Manual when 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.



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.



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 10 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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