



# Hematocrit Centrifuge

# 3220



# One centrifuge with three modes of Centrifugation.

- 2mL micro-tube
- 15mL glass tube
- Hematocrit

Rotor HT/2 commonly used for Hematocrit and for 2mL Micro-tube, and most suitable for an animal clinic.

## Features and Convenient functions

- Maximum speed of 12,000rpm.
- Maximum RCF of 15,000xg.
- Maximum capacity
  - (1) 8x2mL micro-tubes
  - (2) 4x15mL glass tube
  - (3) 30x capillary tube
- Program memories (3 channels) for repeated operation  
A memory function is available for repetitive operation using the same values of operation, i.e. speed and time.
- Buzzer at the end of operation  
5 different buzzer sounds allow recognition of the end of a centrifuge operation from across the room.
- Compliance with GMP requirements  
Equipped with a tachometer port. Actual rotor speed is easy to check.
- The easy-to-follow digital display  
Please refer to the operation panel.

### • Safety pursued

#### Safety is based upon IEC61010-2-020

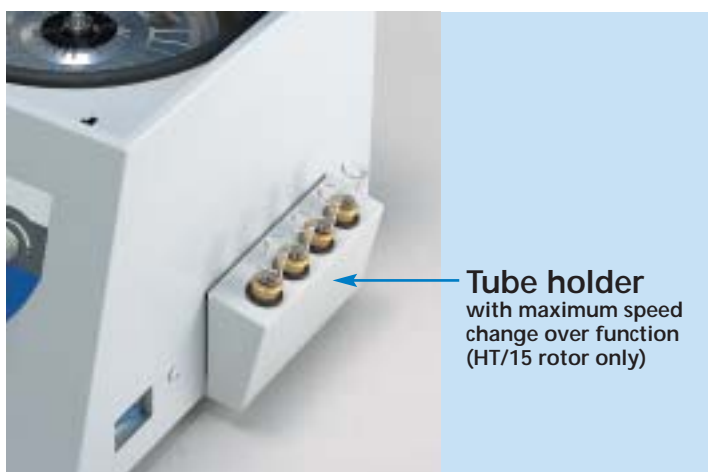
Two hooks are provided on the right and left sides of the lid to prevent debris of the rotor from coming off, should it be broken during operation.

The interlock part is protected from mechanical shock and is provided with a double protected electrical circuit.



### • Limit of speed

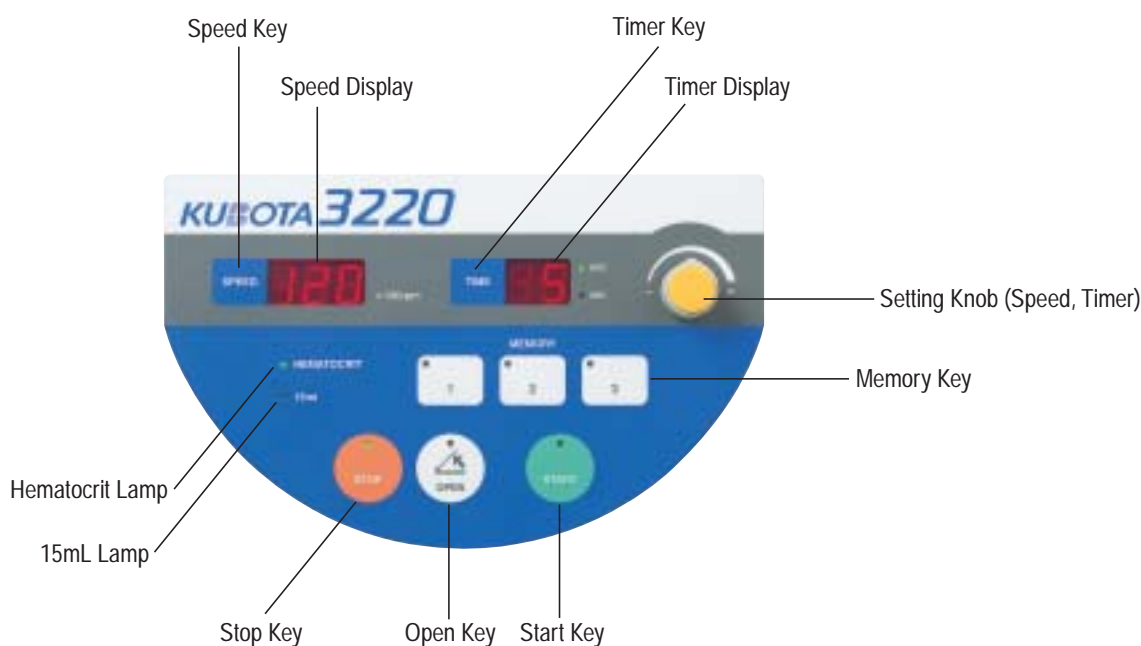
In case of HT/15 rotor, the maximum speed of the rotor is automatically adjusted by the tube. If the rotor is used for the hematocrit, the maximum speed is 12,000rpm. If the rotor is used for 15mL glass tubes, the maximum speed is 4,000rpm. It is impossible to operate at the speeds over the above specified maximum.



Tube holder with maximum speed change over function (HT/15 rotor only)

In case where the centrifuge is used for the hematocrit, 15mL metal tubes should be inserted into the tube holder attached to the side cover of the centrifuge as shown in the photo. In case where 15mL glass tube is used, take the 15mL metal tubes out of the tube holder and mount on to the rotor. If so, the speed is limited to 4,000rpm.

## Operation Panel of Model 3220



### HT/2 rotor (patent pending)

Rotor commonly used for 16x capillary tube and 8x2mL micro-tube



	16x capillary tube	8x2mL micro-tube
Maximum speed	12,000rpm	12,000rpm
Maximum RCF	15,000xg	12,720xg
Tube size (diam.x length) mm	1.75 x 75	9.5 to 11 x 36 to 42
Adaptor	055-7590 for 0.5mL and 0.5mL PCR	
	055-7580 for 0.4mL	
	055-0500 for 0.2mL PCR	

### HT/15 rotor

Rotor commonly used for 24x capillary tube and 4x15mL glass tube



	24x capillary tube	4x15mL glass tube
Maximum speed	12,000rpm	4,000rpm
Maximum RCF	15,000xg	2,100xg
Tube size (diam.x length) mm	1.75 x 75	15 to 17.2 x 85 to 110

### HT rotor

Rotor exclusively used for 30x capillary tube



Maximum speed	12,000rpm
Maximum RCF	15,000xg
Tube size (diam.x length) mm	1.75 x 75

## Specifications

### Model 3220

- Maximum Speed ● 12,000rpm
- Maximum RCF ● 15,000xg
- Maximum Capacity ● (1) 8x2mL  
(2) 4x15mL  
(3) 30x capillary tube
- Control system ● Micro-processor control (Brushless motor)  
Speed, Time
- Alarm display ● Lid open, Imbalance, Over speed.  
Function for detecting an occurrence of electrical abnormality in motor, inverter, lid interlock and speed sensor.
- Speed limit control ● In the case of the HT/15 rotor, there is an automatic change over of the maximum speed between the hematocrit tube and the 15mL glass tube use.
- Speed setting ● From 300 to 12,000rpm, 100rpm increments
- Speed indication ● Digital display, From 0 to 12,000rpm, 100rpm increments
- Timer setting and indication ● Digital display, with Hold  
from 1 sec to 99 sec, in 1 sec increment setting and indication  
from 1 min to 99 min, in 1 min increment setting and indication
- Power requirements ● Single phase AC110V±10%, 115V±10%, 120V±10%, 50/60Hz, 10A  
Single phase AC220V±10%, 230V±10%, 240V±10%, 50/60Hz, 6A
- Rated voltage and Rated current ● 110/115V, 2.6A, 220/230V, 1.2A
- Power consumption and Heat output ● 180W, 0.65MJ/h
- Dimensions, weight ● 32(W) x 39(D) x 27(H)cm<sup>\*1</sup>, 20kg
- Test standard ● Manufactured and tested in accordance with IEC 61010-2-020

(\*1) Those of projections are not included.

All specifications and external appearance subject to change without notice.

\* On Model 3220 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.



#### 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.

- 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.

#### IMPORTANT

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](mailto:f-trade@kubotacorp.co.jp)

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