

Universal Refrigerated Centrifuge



6200

Multi-Purpose Rotor & Micro Rotor can be used in this convenient unit.



Foot switch (Optional)

Rapid acceleration and deceleration

Reach 15,000 rpm rotational speed in 10 seconds, using $18 \times 1.5/2$ mL tubes.

A swinging bucket rotor (SF-2504S) that can accommodate sealing caps and is capable of a maximum speed of 4,800rpm and maximum 4,300xg.

* "Sealing Cap and O-ring" (Code No. 055-0964) are optional.

20 types of rotor available to fit your needs.

Easy-to-use functions maximize convenience.

- Memory function for easy spin-down automatically memorizes duration of spin-down operations from 1 to 90 seconds (patented). One key pressing can then start subsequent spin-down operations, using the memorized duration.
- Equipped with a tachometer port to comply with GMP requirements. Actual rotor speed is easy to check.
- 5 available memory settings, with one-touch saving, and recall operation.
- Acceleration and deceleration curves can be selected from three profiles to best match sample types and experiment requirements. Density gradient methods can be used.
- Operation according to the centrifugal force (xg), as well as stepped centrifuging and integral centrifuging (g·sec) settings.
- Actual g·sec (Integrated RCF) value can be measured for centrifuging operations, in place of time duration settings.
- Timer can be set up to 990 minutes or seconds. During a hold condition, the elapsed time of operation is displayed.

Safety comes first

- Numerous detectors ensure safe, reliable operations. If trouble is detected, operation stops immediately.
- Rotor mounting sensor detects whether or not the rotor is properly set on the driver shaft.
- Automatic rotor detection is available (patented).

Sample temperature maintained at 4°C

(at 25°C ambient temperature. Please refer to the Rotor List).

One-touch rotor setting makes changing rotors easy



Micro Rotor AF-2236



Rotors for Conical Tubes

AF-5004CH

As for 50mL conical tube is
available at 22,140xg.



Plate Rotor
PF-745S
Double stack Deep-well
plates can be used.



Multi-purpose Swinging Bucket Rotor **SF-5004** 500mL bottle is available can be used at 4,000rpm/3,080xg.

Micro Multi-Purpose Rotor MF-2236

- 4 types of buckets can be used with this rotor. It helps saving cost and time of centrifuging.
- High Speed Centrifuging Maximum speed: 15,000rpm Maximum RCF: 19,120xg





Swinging Bucket 24 x 1.5/2 mL 15,000 rpm 18,360 xg







Angle Bucket 24 x 1.5/2 mL 15,000 rpm 18,870 xg



MF-2236 Rotor





Combined angle Bucket for 8-strip PCR tubes 1.5/2mL/0.5mL/0.4mL/0.2mL PCR Bucket 15,000 rpm 17,860 xg



Horizontal Bucket



Horizontal Bucket 36 x 1.5/2 mL 15,000 rpm 19,120 xg

Micro Multi-Purpose Rotor MF-2236

	Rotor Name	Nominal Capacity	Tube sizes (mm) diam. x length	Maximum rpm	Maximum RCF xg	Bucket Code No.	Tube rack Adaptor Code No.
		04 - 15 (01	0.5 11.0 20 40		10.000		
		24 x 1.5/2mL	9.5~11.0 x 36~42		18,360	053-5860	
- COM	Swinging	24 x 0.5mL	7.0~7.9 x 25~34	15,000	15,090		055-7590
	Bucket	24 x 0.4mL	5.4~6.1 x 26~48	10,000	17,860		055-7580
		24 x 0.2mL PCR *	5.9~6.3 x 20~24		11,820		055-0500
		24 x 1.5/2mL	9.5~11.0 x 36~42		18,870	053-2000	_
				15,000			— —
	Angle Bucket	24 x 0.5mL	7.0~7.9 x 25~34		16,100		055-759
		24 x 0.4mL	5.4~6.1 x 26~48		18,360		055-758
-0		24 x 0.2mL PCR *	5.9~6.3 x 20~24		13,330		055-050
		8 x 0.2mL 8-strip PCR	5.9~6.3 x 20~24		17.860		_
4	0	12 x 1.5/2mL	9.5~11.0 x 36~42		15,600		
(D)	Combined			15,000	-	052 6000	055.750
	Angle	12 x 0.5mL	7.0~7.9 x 25~34	15,000	13,330	053-6000	055-759
And I	Bucket	12 x 0.4mL	5.4~6.1 x 26~48		15,340		055-758
		12 x 0.2mL PCR *	5.9~6.3 x 20~24		11,320		055-050
		36 x 1.5/2mL	9.5~11.0 x 36~42		19,120		_
		30 X 1.3/ LITE	5.5 11.0 X 50 TE		13,120		

	36 x 1.5/2mL 9.5~11.0 x 36~42			19,120		_
Havinantal	36 x 0.5mL	7.0~7.9 x 25~34	15,000	15,850	053-3000	055-7590
Horizontal Bucket	36 x 0.4mL	5.4~6.1 x 26~48		18,610		055-7580
	24 x 0.2mL PCR	5.9~6.3 x 20~24		13,330		_
	36 x 0.2mL PCR *	5.9~6.3 x 20~24		12,580		055-0500

Rotor, Bucket, Tube Rack Table for Model 6200



AF-2730 rotor and AF-5004CS rotors are certified as "Bio sealed rotors" by CAMR (U.K.).

Even if tubes are broken, samples do not come out of the rotor. These rotors can be used for inspections of BSE, SARS, and etc.

- Sample temperature maintained at 4°C at maximum speed of rotation. When AF-2236 and AF-2048 rotors are used, sample temperature maintained at 4°C at a speed of rotation indicated in the brackets (), and at 8°C at maximum speed of rotation.
- For RCF indication, please refer to the instruction manual.

Micro Rotor



AF-2018 18 x 1.5/2mL Quick Acceleration: 10 seconds



AF-2724A 24 x 1.5/2mL, 12 x 0.5/0.2mL PCR 4 types of tubes (1.5/2mL, 0.5mL, 0.2mL PCR) can be used without adaptors. More than 20,000 g is effective for BSE tests.



AF-2730 Bio Sealed Rotor 30 x 1.5/2mL 4 types of tubes (1.5/2mL, 0.5mL, 0.2mL PCR) can be used without adaptors.



AF-2236 36 x 1.5/2mL, 4 x 0.2mL PCR 48 x 1.5/2mL 4 types of tubes (1.5/2mL, 0.5mL, 0.2mL PCR) can be used without adaptors. Caps of 1.5/2mL tubes can be oriented in the same direction and it is useful for experiments.



AF-2048 Usuful for centrifuging heavy numbers of samples

* The number of times allowed for autoclaving are limited. Please refer an instruction manu.	*	The number of	of times allowed	for autoclaving a	are limited. Please	refer an	instruction manu
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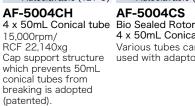
		011001110 101	* The number of times allowed for autocaving are limited. Flease rele					
	Rotor Name	Nominal Capacity	Tube size (mm) diam. x length	Maximum Speed rpm	Maximum RCF xg	Tube Rack Adaptor Code No.		
		18 x 1.5/2mL	9.5~11 x 36~42	15,000	20,630	_		
	AF-2018 *1	18 x 0.5mL	7~7.9 x 25~34	15,000	18,110	055-7590		
		18 x 0.4mL	5.4~6.1 x 26~48	15,000	20,120	055-7580		
		24 x 1.5/2mL *2	9.5~11 x 36~42	11 x 36~42 16,000 23,470		_		
_	AE 0704A	12 x 0.5mL	7~7.9 x 25~34	16,000 19,180		_		
	AF-2724A*1	24 x 0.4mL	5.4~6.1 x 26~48	16,000	23,180	055-7580 —		
		12 x 0.2mL PCR	5.9~6.3 x 20~24	16,000	16,890	_		
	AF-2730 *1	30 x 1.5/2mL	9.5~11 x 36~42	14,000	21,040	_		
6		14 x 0.5mL 7~7.9 x 25~34		14,000	17,530	_		
•	AF-2/30 *1	30 x 0.4mL	5.4~6.1 x 26~48	14,000	20,380	055-1240		
		14 x 0.2mL PCR	5.9~6.3 x 20~24	14,000	16,430	_		
		36 x 1.5/2mL	9.5~11 x 36~42	15,000 (14,000)	21,880 (19,060) *3	_		
	AF-2236 *1	12 x 0.2mL PCR	5.9~6.3 x 20~24	15,000 (14,000)	15,340 (13,370)	_		
	AF-2230 *1	36 x 0.5mL	7~7.9 x 25~34	15,000 (14,000)	19,620 (17,090) *3	055-7590		
		36 x 0.4mL	5.4~6.1 x 26~48	15,000 (14,000)	21,630 (18,850) *3	055-7580		
		48 x 1.5/2mL	9.5~11 x 36~42	12,000 (11,500)	15,780 (14,490) *3	_		
	AF-2048 *1	48 x 0.5mL	7~7.9 x 25~34	12,000 (11,500)	14,330 (13,160) *3	055-7590		
		48 x 0.4mL	5.4~6.1 x 26~48	12,000 (11,500)	15,620 (14,340) *3	055-7580		

0.2mL PCR tube can be used with adaptors (Code No. 055-0500).
0.2mL PCR tube may not be able to used at maximum speed since 0.2mL PCR tube cannot hold at the maximum g force.
When using 1.5mL tube at over 16,000rpm, use adaptors (Code No.055-6020).

This is a speed of outside tube hole. Ask our distributor for details

Angle Rotor (for Conical Tubes)



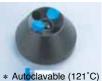


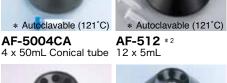


AF-5004CS 4 x 50mL Conical tube Various tubes can be used with adaptors.



AF-5004CA







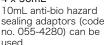
AF-5008C AF-1408A *3 8 x 50mL Conical tube 8 x 14mL

Angle Rotor (Middle Volume)





AF-5004R 4 x 50mL 10mL anti-bio hazard





* Autoclavable (121°C)

* The number of times allowed for autoclaving are limited. Please refer an instruction manual.

	Rotor Name	Nominal Capacity	Tube size (mm) diam. x length	Maximum Speed rpm	Maximum RCF ×g	Tube Rack Adaptor Code No.
	AF-5004CH	4 x 50mL conical tube *1	30 x 117	15,000	22,140	_
	AF-5004CH	4 x 15mL conical tube	17 x 121	15,000	21,130	055-1250
6	AF-5004CS	4 x 50mL conical tube *1	30 x 117	12,000	14,970	_
•	AF-5004C3	4 x 15mL conical tube	17 x 121	12,000	14,490	055-1280
	AF-5004CA	4 x 50mL conical tube *1	30 x 117	12,000	14,170	_
	AF-5004CA	4 x 15mL conical tube	17 x 121	12,000	13,520	055-1280
	AF-5008C	8 x 50mL conical tube *1	30 x 117	10,000 (9,500)	13,420 (12,110)	_
	AI-3008C	8 x 15mL conical tube	17 x 121	10,000 (9,500)	13,190 (11,910)	055-1280
	AF-512	12 x 5mL *2	15 x 59	15,000	20,880	_
	AF-1408A	8 x 14mL *3	17 x 75∼100	12,000	14,330	_
		4 x 50mL	28.5~29 x 102~115	15,000 (14,000)	21,880 (19,060)	_
	AF-5004R	4 x 12mL	15.8~16.4 x 103~110	15,000 (14,000)	20,630 (17,970)	055-7410
		4 x 10mL	16~16.3 x 79~92	15,000 (14,000)	20,630 (17,970)	055-4280 *4
	AF-3806	6 x 38mL	25.4~25.7 x 87~95	15,000 (14,500)	21,880 (20,450)	_

As for 50mL conical tubes (PP), Iwaki, Greiner, Corning, Sarstedt, Falcon, Fisher, Labcon, Nunc, SUMILON tubes (cap diam.: 36mm or less) are available With the use of adaptors (Code No.055-0890), Nalgene conical 35mL Oak Ridge tube 3146-0050 (PC), 3148-0050 (PPCO) are also available BIO-BIC 5mL sampling tube and WATSON 5mL mega tube can be used.

Falcon Round-Bottom Tube (Dual-position snap cap) 352006, 352018, 352059 are available.

This 055-4280 adaptor is for anti-bio hazard.

Plate Rotors

PF-206

* The number of times allowed for autoclaving are limited. Please refer an instruction manual.

Plate	Nominal Capacity	Plate size mm	Maximum Speed rpm	Maximum RCF xg	Adaptor Code No.
	2 x PCR plates *1 6 x Micro-plates 2 x Deep-well plates	86(W)×128(D)×52(H)	4,000	1,790	_

PF-745S



* Autoclavable (121°C)

Ethanol precipitation at 3,100 xg Biohazard-proof shield cover is effective for biohazardproof requirements (standard accessory). Double stack Deep-well plates can be used.

2 x PCR plates Trays 12 x Micro-plates 86(W)×128(D)×90(H) 4,200 3,100 055-6380 4 x Deep-well plates

- *1 Verify plate strength before centrifuging. Plates in lower position may fracture.
- *2 Facilitates removing plates from buckets.

Trays Code No.055-6380 (optional)







plate





12 x 96 well plate

4 x deep-well plate

2 x PCR plate

Swinging Bucket Rotor

* Autoclavable times are limited. Refer to operation and service manual.

Tube		Flow Cytoneter			
Nominal Capacity	24 x 1.5/2mL *1	16 x 5~10mL blood collecting tube/15mL	4 x 7~10mL blood collecting tube/10mL glass *3		8 x 7~10mL blood collecting tube/10mL glass *3
Tube size (mm) 9.5~11 x 36~42 diam. x length		12~17 x 65~105	12~17.2 x 86~110	12~17.8 x 87~110	12~17.2 x 86~110
Maximum Speed rpm 4,000		4,000	4,000	4,000	4,000
Maximum RCF xg 2,410		2,410	2,540	2,500	2,520
Bucket Code No.	053-4800	053-4930 NEW	053-4910	053-4990	053-4900
Adaptor Code No. SF-240 Max 4,000 rpm Max 2,610 xg	_	_	_	055-7400 *4 024-1400 (Rubber cushion)	_

* Autoclavable times are limited. Refer to operation and service manual

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Tube		у	Thomas and the state of the sta							
Nominal Capacity	4 x 15mL Conical tube	4 x 15mL Conical tube	4 x 15mL Conical tube	8 x 15mL Conical tube	8 x 50mL glass	4 x 50mL Conical tube	4 x 50mL Conical tube			
Tube size (mm) diam. x length	17 x 121	17 x 121	17 x 121	17 x 121	27~37 x 95~110	30 x 117	30 x 117			
Maximum Speed rpm	4,000	4,000	4,000	4,000	4,000	4,000	4,000			
Maximum RCF xg	2,580	2,580 2,590 2,590		2,580	2,540	2,610	2,610			
Bucket Code No.	053-4910	053-5010	053-0040	053-4900	053-4990	053-0040	053-5010			
Autoclavable (121°C) * SF-240 Max 4,000 rpm Max 2,610 xg	_	055-1280	055-1280	_	_	_	_			
Equipped with sealing cap (patent pending) Equipped with sealing cap (patent pending)										

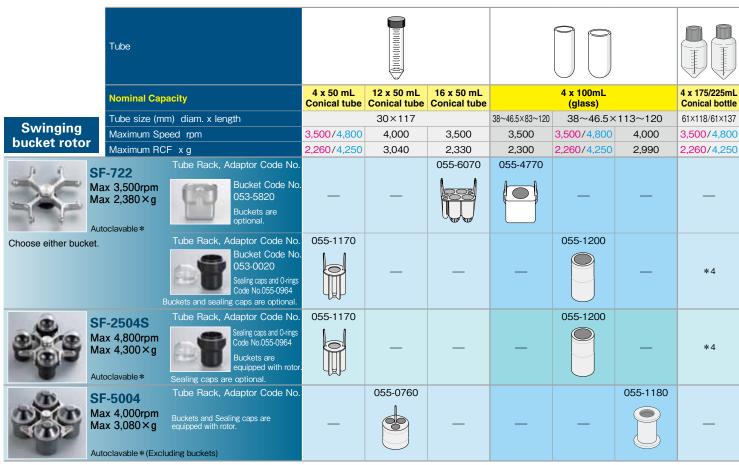
- *1 Tube support can be produced for special tube sizes. Contact our distributor.
 *2 5-10mL Blood collecting tubes made by SEKISUI (Insepack II), Termo (Venoject II), Nipro (Neotube) or Beckton Dickinson (Vacutainer) can be used.
 *3 7-10mL Blood collecting tubes made by SEKISUI (Insepack II), Termo (Venoject II), Nipro (Neotube) or Beckton Dickinson (Vacutainer) can be used.
 *4 In case of using glass tube, rubber cushion 024-1400 is necessary.
 *5 This is sealing-bucket and it is equipped with sealing cap and 0-ring (silicon). Autoclavable at 121°C

Rotor, Bucket, Tube Rack Table for Model 6200

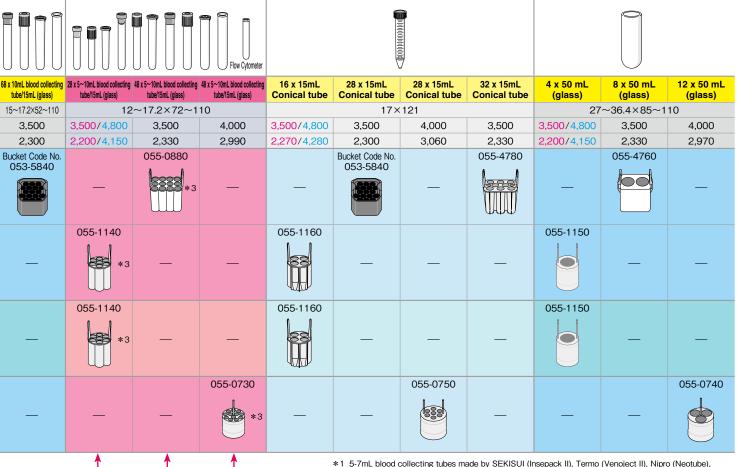
	Tube						Flow Cytometer		
	Nominal Cap	acity	36 x 1.5/2mL	72 x 1.5/2mL	80 x 1.5/2mL		~7mL collecting tube	24 x 8mL CPT cell preparation tube	80 x 10mL (glass)
Consideration of	Tube size (mi	m) diam. x length	9.5~11×36~42		2	12~13.7×62~110		13.5~15.8×81~130	12~13.8×65~95
Swinging bucket rotor	Maximum Sp	Maximum Speed rpm		4,000	3,500	3,500		3,500	3,500
Ducket Totol	Maximum RC	Fxg	2,260/4,250	3,040	2,290		300	2,310	2,260
	SF-722 Max 3,500rpm Max 2,380×g	Tube Rack, Adaptor Code No. Bucket Code No. 053-5820 Buckets are optional.	_	_	055-4800	Bucket Code No. 053-5840	Adaptor Code No. 055-0260 *1	055-6900	055-4740
Choose either buck		Tube Rack, Adaptor Code No. Bucket Code No. 053-0020 Sealing caps and 0-rings Code No.055-0964 uckets and sealing caps are optional.	055-1190	_	_	_	_	_	_
200	SF-2504S Max 4,800rpm Max 4,300×g	Tube Rack, Adaptor Code No. Sealing caps and 0-rings Code No.055-0964 Buckets are equipped with rotor. Sealing caps are optional.	055-1190	_	_	_	_	_	
DE CO	SF-5004 Max 4,000rpm Max 3,080×g	Tube Rack, Adaptor Code No. Buckets and Sealing caps are equipped with rotor. uding buckets)	_	055-0770	_	_	_	_	

^{*} The number of times allowed for autoclaving are limited. Please refer an instruction manual.

The maximum speed and maximum RCF of SF-722 indicated on the left in red. The maximum speed and maximum RCF of SF-2504S indicated on the right in blue.



^{*} The number of times allowed for autoclaving are limited. Please refer an instruction manual.



- 5-7mL blood collecting tubes made by SEKISUI (Insepack II), Termo (Venoject II), Nipro (Neotube), Beckton Dickinson (Vacutainer) can be used. Tube for flow cytometry can also be used.
- Vacutainer 8 mL blood collecting tube for CPT cell separation (nominal ϕ 16 x 125) made by Beckton Dickinson can be used.
- *3 5-10 mL blood collecting tubes made by SEKISUI (Insepack II), Termo (Venoject II), Nipro (Neotube), Beckton Dickinson (Vacutainer) can be used. Tube for flow cytometry can also be used.

Harris									Z			
4 x 175/200/225mL Conical bottle		4 x 250mL *7	4 x 250mL *7	4 x 250mL *7	4 x 500mL	4 x Self-Standing	Self-Standing for spu			anding for s	•	
61×118/61×130/61×137			*/ -61.8×100~10		*8 85×135	for sputum cap size φ 48	x 4 x 8 cap size φ 37 ca	х 12 an size ф.31	x 8	x 12	х 16	
3,500	4,000	3,500	3,500/4,800	4,000	4,000	3,500/4,800	4,000	αρ 3120 φ 0 1	ουρ 3120 φ 40	3,500	ουρ 3120 φ 0 1	
2,330	3,040	2,380	2,290/4,300	3,080	3,080	2,260/4,250	3,020		2,250	2,290	2,300	
055-4850		055-4850							055-0430	055-0440	055-0450	
*5	_		_	_	_	_	_				88	
_	_	_	can be used without adaptors	_	_	055-1210	_			_		
_	_	_	can be used without adaptors	_	_	055-1210	_				_	
_	055-0780 *5 *6	_	_	055-0780	can be used without adaptors	_	055-0810 055-0800 0	055-0790		_		

- *4 175/225 mL conical BD Falcon tubes (Catalogue No.352076/No.352075) require cushions (Catalogue No.352090). Sealing cap cannot be used with 225mL tubes.
 *5 175/225 mL conical BD Falcon tubes (Catalogue No.352076/No.352075) require cushions (Catalogue No.352090).
- *6 200 mL Nalgene bottles (Code No.376813) require cushions (Code No.377585).

 *7 Nalgene and Herolab 250mL flat bottom bottles can be used.

 *8 500mL bottles (Code No.K15501C/PPC0) can be used.

This convenient tube rack can accommodate blood collecting tubes of various sizes (such as 5 mL, 7 mL, 10 mL), as well as 15 mL glass tubes.

Specifications

Model 6200

Maximum Speed • 16,000 rpm

Maximum RCF • 23,470 xg

Maximum Capacity • 2,000 mL

Control system • Micro-processor control (brush-less motor)

Speed, RCF(g), Time, g·sec, Temperature, Acceleration and Deceleration, 5 memory banks

Alarm display • Lid open, Imbalance, Over speed, Rotor setting condition, Abnormally high temperature,

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

Acceleration/Deceleration • Three selectable rates: Rapid, Slow and Super Slow

Speed setting • From 200 to 16,000 rpm, 10 or 100 rpm increments

Speed indication • Digital display, from 0 to 16,500 rpm, 10 rpm increments

RCF setting • From 10 to 23,470 xg, 10 or 100 xg increments

RCF indication • Digital display, from 0 to 24,960 xg, 10 xg increments

Integrator setting and indication • Digital display, from 1.00 - 9.99 x 109 g · sec

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

1 second to 100 seconds, 1 sec increments 100 seconds to 990 seconds, 10 sec increments 1 minute to 100 minutes, 1 min increments 100 minutes to 990 minutes, 10 min increments

Temperature setting and indication ● Digital display, -20°C to +40°C, 1°C increments

Refrigerant • R134a

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

Rated voltage and rated current • 110V 7.9A, 220V 3.9A, 230V 3.8A

Power consumption and heat output • 720W 2.6 MJ/h

Dimensions, weight ● 50(W) x 65(D) x 85(H) cm(*1), 118 kg

Certificates of conformity • IEC 61010-2-020 (except when using AF-5008C)

CE Marking (AC220V and 230V Version, except when using AF-5008C)

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.

KUBOTA CORPORATION

http://www.centrifuge.jp

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