



**CF-RN** SERIES  
General Purpose Centrifuge



**CAUTION:**  
For safe and proper use of your machine, carefully read and follow the instructions in the instruction manual.

- All specifications are subject to change without advanced notice.
- Actual color may vary from the color of the photos on this catalogue, due to printing condition.
- Due to safety reason, installation environments, operating environments and conditions may be restricted.
- Unless specially mentioned, products and/or operation panel of the photos are standard specification.
- For further information, please contact your nearest Hitachi Koki's representative.

Manufactured by :  
**Hitachi Koki Co., Ltd.**  
Life-Science Instruments Division  
1-8-12 Shiba-kouen, Minato  
Tokyo 105-0011 JAPAN  
TEL : +81-3-5733-0206  
FAX : +81-3-5733-0207  
URL : <http://centrifuges.hitachi-koki.com/>



High-speed  
Micro

Versatile  
and  
High-speed  
Micro

# Product's Concept



CF15RN



CF16RN

## himac CF-RN SERIES

General Purpose Centrifuge

### Save Space, Save Cost!

Do you have many centrifuges on your Lab. Bench?  
If your answer is yes, we would like to offer you a smart solution.

*"Install a single unit of CF-RN series in a laboratory and exchange the rotors based on your applications."*

CF-RN series is unique floor-standing model with smaller footprint than conventional bench-top models in general. You can install CF-RN series into small empty space in your laboratory and have several types of the rotors depends on your applications in the shelf, so the rotor can be exchanged easily, thanks to himac unique "Self-Locking Rotor System", based on the application.

### Self-Locking Rotor System

himac unique "Self-Locking Rotor System" is the most simple system to lock and/or unlock the rotor onto the drive shaft. Place the rotor onto the drive shaft – That is only what you need to do. The rotor is automatically locked by centrifugal force once it starts spinning. When the rotor comes to complete stop, the lock is automatically released. No longer need to screw/unscrew the rotor or push a button to lock and/or unlock the rotor onto the drive shaft.



### Environment-friendly Design

Environment conservation or energy saving may be your primary concern to select laboratory instruments. The CF-RN series comply with Hitachi Group's environment standard "Design for Environment Assessment System". Over 80% materials of the products are reusable or recyclable. It has reduced use of the harmful substance in materials and components and CF-RN series comply with RoHS directive. Now, "Economy Mode" (automatic standby function) is equipped with the CF-RN series. Stand-by electricity can be reduced up to 80% with the "Economy Mode" comparing to the one without the mode. Press "ECO" button on the control panel, so you can contribute to energy saving.



# Useful Functions & Features

## Powerful Drive Unit

Reaching to 15,000rpm within 8 seconds (T15AP31 rotor)  
Quick acceleration and deceleration

## Two in One

CF16RN is unique and has both features of versatile centrifuge and high-speed micro centrifuge in a single body. So you can use fixed angle rotors for high-speed centrifugation and swinging bucket rotors with test tubes and tissue culture tubes for versatile application.

## Actual Run Time (ART Function)

Timer starts time count once the set speed is attained. So acceleration time is excluded from the centrifugation time. You can obtain higher reproducible centrifugation result with this function.

## Total Run Hours Indication

Total run hours\*1 can be displayed on the operation panel. It is useful as a guideline of the periodical maintenance.

\*1 Including acceleration time regardless a setting of the Actual Run Timer

## Rotor Condition Indicator

You can see easily that the rotor is rotating at the set speed with this function.

## Easy-to-use Jog Dial



## Specifications

Model	CF16RN	CF15RN
Maximum Speed (rpm)	16,000	15,000
Maximum RCF (xg)	22,260 (T15A41/42 rotor)	22,260 (T15A41/42 rotor)
Maximum Capacity	1L (250ml x 4 : T5SS31 rotor)	280ml (70ml x 4 : T15A37 rotor)
Speed Setting Range (rpm)	300 - 16,000	300 - 15,000
Timer	5 - 55 sec. / 1 - 99 min. w/HOLD	5 - 55 sec. / 1 - 99 min. w/HOLD
Temperature Setting Range (°C)	-9 to +40	-9 to +40
Power Requirement (115V model)	115V : 103 - 127VAC, 15A, 50/60Hz	
(200 - 240V model)	200/208V : 180 - 229VAC, 220/230V : 198 - 253VAC, 240V : 216 - 264VAC, 8A, 50/60Hz	
Dimensions (mm)	490 (W) x 550 (D) x 852 (H)	370 (W) x 485 (D) x 830 (H)
Weight (kg)	105	82
Part No. (115V model)	90561302	90561202
(200 - 240V model)	90561301	90561201

Note : CF-RN series is not a medical device



# Wide Selection of Rotors

## Fixed Angle Rotors, Horizontal Rotors

### CF16RN / CF15RN - compatible rotors



### CF16RN - compatible rotors



## Swinging Bucket Rotors for CF16RN



The rotor marked with this icon can be sterilized by autoclave at 121°C for 20 minutes.

Biosafety of the rotor marked with this icon was verified by in-house test according to the procedure modified IEC61010-2-020 Annex AA, using Bacillus subtilis containing  $\geq 1 \times 10^6$  spores/ml. Sample may be leaked from the rotor if o-ring is deteriorated or operation is not appropriate.





# Rotors, Buckets, Adapters, Tubes & Bottles

For CF16RN & CF15RN

Rotor Model (Part No.)	Rotor ID	Max. speed (rpm)	Max. RCF (xg)	Nominal Capacity (ml x pcs)	Bucket		Tube Adapter		Tube / Bottle			
					P/N	Name	P/N	Name	P/N	Name	Tube Size (φ x L) mm	Selling Unit
T16A31 (90587500)	36	16,000	21,400	2/1.5 x 18	—	—	—	—	● 2.0ml/1.5ml Microtube			
T15AP31 (90589300)	41	15,000	18,800	2/1.5 x 18	—	—	—	—	To use one of following tubes, the adapter indicated in "< >" should be used.			
T15A39 (90589900)	49	15,000	21,500	2/1.5 x 24	—	—	—	—	● 0.2ml PCR Tube < P/N 489238A : 0.5 Adapter (4pcs/set) >			
T14A31 (w/rotor lid) (90591500)	37	14,000	21,900	2/1.5 x 30	—	—	—	—	● 0.25ml Microtube < P/N 487292A : 0.4 Adapter (4pcs/set) >			
T15A38 (w/Biosafety rotor lid) (90590800)	48	15,000	Out: 21,600 In: 18,300	2/1.5 x 36	—	—	—	—	● 0.5ml Microtube < P/N 487293A : 0.75 Adapter (4pcs/set) >			
T15A43 (90591500)	43	15,000	Out: 21,600 In: 18,300	2/1.5 x 36 0.2 x 18	—	—	—	—	● 1.0ml Glass Tube (U bottom) < P/N 489237A : Glass Adapter (A) (4pcs/set) >			
T15A44* (90591600)	43	15,000	Out: 21,600 In: 18,300	2/1.5 x 36 0.2 x 18, 0.5 x 18	—	—	—	—	—			
T11A32 (90588300)	32	11,000	Out: 12,000 In: 11,200	2/1.5 x 48	—	—	—	—	—			
T12A31 (90590100)	33	12,000	14,100	0.2 x 48 (for PCR tube)	—	—	—	—	● 0.2ml PCR Tube			
T15A34 (90589500)	44	15,000	18,600	10 x 8	—	—	334105A	10PA Bottle	16 x 81	10pcs/box		
					—	—	325952A	10PC Bottle	16 x 81	10pcs/box		
					—	—	S303922A	10PC Bottle (B)	16 x 82	6pcs/box		
T15A35* (90589600)	45	15,000	21,000	30 x 6	—	—	S308133A	30PC Bottle (B3)	25 x 97	6pcs/box		
					—	—	330345A	30PA Bottle	25 x 97	10pcs/box		
T15A36 (90589700)	46	15,000	21,800	50 x 4	—	—	S306352A	50PP Bottle	29 x 106	10pcs/box		
					—	—	328352A	50PC Bottle	29 x 106	10pcs/box		
					—	—	S302921A	30PC Bottle (B3)	29 x 108	10pcs/box		
					—	—	● 50ml Bottle (U-bottom) †					
					S407959A	15TA50 Adapter (2pcs/set)	● 15ml TC Tube (V-bottom)					
T15A37* (90589800)	47	15,000	20,900	70 x 4	—	—	S308433A	70PC Bottle (C) (4pcs included)	38 x 106	6pcs/box		
T15A41 (90591300)	42	15,000	22,200	50 (TC) x 4 15 (TC) x 4	—	—	S307904A	himac 50TC Tube	30 x 115	300pcs/box		
T15A42 (w/Biosafety rotor lid) (90591400)	42	15,000	22,200	50 (TC) x 4 15 (TC) x 4	—	—	S408945A	13A50T Adapter (B) (2pcs/set)	● 13ml TC Tube (U-bottom)			
T15H31* (w/rotor lid) (90590000)	35	15,000	18,600	0.4/0.25 x 60	S409874A	0.4H3 Bucket (6pcs/set)	—	—	● 0.4ml/0.25ml tube			
				0.5 x 60	S409873A	0.75H3 Bucket (6pcs/set)	—	—	● 0.5ml microtube			
				2/1.5 x 48	S409872A	1.5H3 Bucket (6pcs/set)	—	—	● 2.0ml/1.5ml microtube			
T15S31 (w/rotor lid) (90588200)	34	15,000	19,500	0.4/0.25 x 60	S407958A	0.4S3 Bucket (4pcs/set)	—	—	● 0.4ml/0.25ml tube			
				0.5 x 20	S407957A	0.75S3 Bucket (4pcs/set)	—	—	● 0.5ml microtube			
				2/1.5 x 16	S407956A	1.5S3 Bucket (4pcs/set)	—	—	● 2.0ml/1.5ml microtube			

**Remarks**

- The rotors with \* are made-to-order item.
- Items with ● are marketed products. Purchase directly from your local supplier
- Actual volume of the tube or bottle may be less than the nominal volume due to design of the rotor or shape of the tube/bottle.
- \*\* Cap of 160PP bottle and 160PC bottle is sold separately. Please order P/N:S410008A 160 Cap (2pcs/set) with the bottle.
- If one of these rotors is used in a previously delivered CF16RXII (MFG No. 0112 or before) or CF16RX, please contact our nearest Hitachi Koki's representative for information on product compatibility.
- When "● 50ml Bottle (U-bottom) †" is used, please refer to a data sheet of the bottle and set RCF at Max. RCF or below of the bottle.

Exclusive for CF16RN

Rotor Model (Part No.)	Rotor ID	Max. speed (rpm)	Max. RCF (xg)	Nominal Capacity (ml x pcs)	Bucket		Tube Adapter		Tube / Bottle			
					P/N	Name	P/N	Name	P/N	Name	Tube Size (φ x L) mm	Selling Unit
T6AP31* (90590700)	25	4,770	4,630	50(TC) x 8	—	—	—	—	● 50ml TC Tube (V-bottom)			
		6,000			—	—	8pcs incl. (S410551A)	15TA50T Adapter (B) (2pcs/set)	● VIVA SPIN 20*		SARTORIUS	
		4,750			—	—	—	—	● Amicon Ultra -15*		MILLIPORE	
		3,360			1,500	—	—	—	● 15ml TC Tube (V-bottom)			
T9A31 (90587400)	24	9,000	10,600	50(TC) x 8	—	—	—	—	● VIVA SPIN 6*			
		—	—	—	—	—	● VIVA SPIN 2*		SARTORIUS			
		—	—	—	—	—	● Amicon Ultra -4*		MILLIPORE			
T11A33 (90588700)	28	11,000	14,500	50 x 8	—	—	—	—	● Centriprep® YM-3			
					—	—	—	—	● Centriprep® YM-10			
					—	—	—	—	● Centriprep® YM-30			
T11A34 (90588800)	29	11,000	14,800	80 x 8	—	—	—	—	● Centriprep® YM-50			
					—	—	—	—	● 50ml TC Tube (V-bottom)			
					—	—	—	—	● 15ml TC Tube (U-bottom)			
T4SS31 (90588100)	60	4,000	2,380	5 x 32	—	—	—	—	● 50ml TC Tube (V-bottom)			
		3,600	2,320	7 x 32	—	—	—	—	● 4 - 5ml Blood Collection Tube 12.4-13.2 x 75-78			
		4,000	2,860	10 x 32	—	—	—	—	● 7ml Blood Collection Tube 12.4-13.2 x 100			
		3,600	2,320	15 x 32	—	—	—	—	● 10ml Blood Collection Tube 15.4-16 x 110			
		4,000	2,900	15 x 24	—	—	—	—	● 15ml TC Tube (V-bottom)			
		3,500	2,120	50 x 8	—	—	—	—	● 50ml TC Tube (V-bottom)			
		3,000	1,610	15 x 10	—	—	—	—	● 50ml TC Tube (V-bottom)			
		4,000	2,860	10 x 10	—	—	—	—	● 50ml TC Tube (V-bottom)			
		4,000	2,860	10 x 10	—	—	—	—	● 50ml TC Tube (V-bottom)			
		P/N : S410523A Round Bucket (Option) (4pcs/set) Adapters and a cap (option) for T5SS31 can be used.										
T5SS31 (90587700)	50	4,800	4,170	5 x 32	—	—	—	—	● 4 - 5ml Blood Collection Tube 12.4-13.2 x 75-78			
		3,000	1,630	10 x 28	—	—	—	—	● 7ml Blood Collection Tube 12.4-13.2 x 100			
		4,800	4,170	10 x 28	—	—	—	—	● 10ml Blood Collection Tube 15.4-16.5 x 110			
		3,000	1,630	15 x 28	—	—	—	—	● 15ml Blood Collection Tube 15.4-16.5 x 110			
		3,990	50 x 4	—	—	—	—	—	● 15ml TC Tube (V-bottom) Optional cap can be used.			
		—	15(TC) x 12	—	—	—	—	—	● 15ml TC Tube (V-bottom) Optional cap can not be used.			
		—	15(TC) x 16	—	—	—	—	—	● 50ml TC Tube (V-bottom)			
		—	50(TC) x 4	—	—	—	—	—	● 50ml TC Tube (V-bottom)			
		—	160 x 4	—	—	—	—	—	● 160PP Bottle ** 52 x 120 10pcs/box			
		—	250 x 4	—	—	—	—	—	● 160PC Bottle ** 52 x 120 10pcs/box			
P/N : S410252A Bucket Cap (Option) (4pcs/set) The cap cannot be used for 15TCx4S Adapter and 250ml Bottle.												
T5S33 (90581700)	56	4,700	3,100	96DW x 4	—	—	—	—	● 96-hole Deep Well Plate (128x86x43H)			
				96MP x 12	—	—	—	● 96-hole Micro Plate (128x86x14H)				
				FDW x 2	—	—	—	● Deep Well Plate with Filter (128x86x90H)				
T5S32 (90587600)	55	4,800	3,120	96DW x 2	—	—	—	—	● 96-hole Deep Well Plate (128x86x43H)			
				96MP x 10	—	—	—	● 96-hole Micro Plate (128x86x14H)				
				PCR 0.2x192	—	—	—	● 0.2ml PCR Tube				
				2/1.5 x 96	—	—	—	● 1.5/2.0ml Microtube				
T8H31* (90588500)	23	8,000	7,100	PCR0.2 x 4	—	—	4pcs incl.	● 0.2PCR Tube Rack	● 0.2ml PCR Plate			