Rotors and Accessories

Type	Fixed angle rotor	Swinging bucket rotor				
Model	R7A	R5S3	R5S2			R4SS2
Tube / Bottle	1000PP bottle (WM) 1000PC bottle (WM) *2	400 mL blood bag (marketed product)	400 mL blood bag (marketed product)	1000PP bottle 1000PC bottle *3	400 mL MAP bag (marketed product)	500 mL blood bag (marketed product)
Bucket	–	Exclusive bucket (6 pcs/set) Standard accessories	1000AL bucket (B) (6 pcs/set) P/N: S302160A Sold separately		MAP bucket (6 pcs/set) P/N: S304829A Sold separately	Exclusive bucket (4 pcs/set) Standard accessories
Inner cup	–	Oval inner cup (400) (6 pcs/set) Standard accessories	Inner cup (L) (6 pcs/set) P/N: S305557A Sold separately	–	MAP inner cup (6 pcs/set) P/N: S304843B Sold separately	500 mL inner cup (4 pcs/set) Standard accessories
Max. speed (rpm)	7,000	4,200	4,200		3,800	4,400
Max. RCF (xg)	11,100	5,030	5,150		4,210	5,350
Nominal capacity	6,000 mL (1,000 mL x 6 bottles)	400 mL blood bag x 12 bags	400 mL blood bag x 6 bags *4	6,000 mL (1,000 mL x 6 bottles) *4	400 mL MAP bag x 6 bags	500 mL blood bag x 8 bags
Weight (kg)	18.7	32 (buckets included)	28 (buckets not included)			31 (buckets included)
Max. Imbalance Tolerance *1 (g x pcs)	6 x 3	50/pair x 3	50/pair x 3			50/pair x 2
Product No.	904367D0	904358D0	90431610			90437610

Remarks
*1: Max. imbalance tolerance means allowable weight difference of tubes, bottles and buckets between the buckets in symmetry position.
*2: 6 sets 1000PP bottle (WM) including 1000PP cap (WM) are standard accessories of R7A rotor.
*3: 1000PP/PC bottles are not standard accessories of R5S2 rotor. Please order them separately.
・6 sets 1000PP bottle (P/N: 337155A) ・6 sets 1000PC bottle (P/N: 339420A)
*4: The speed of R5S2 rotor is limited by the weight of contents in bucket (the total weight of inner cup, bottle, blood bag and sample). When the total weight is over 1,000 g, R5S2 rotor cannot be used at the maximum speed. Please refer to the instruction manual according to the allowable speed.

ISO 14001 JACO EC99J2022 UKAS MANAGEMENT SYSTEMS 051

Hitachi Koki Co., Ltd. has been certified for ISO14001 (Environmental Management Systems).

ISO 9001 BUREAU VERITAS Certification 1828 UKAS MANAGEMENT SYSTEMS 008

Life-Science Instruments Division of Hitachi Koki Co., Ltd. has been certified for ISO9001 (Quality Management Systems).

CAUTION:
- Before using the centrifuge, carefully read through the instruction manual to ensure efficient and safe operation.
- The hazard alert symbols indicated together with signal words "DANGER", "WARNING" and "CAUTION" in the instruction manual or on the centrifuge are safety reminders. Please use the centrifuge properly and safely according to the safety reminders.
- Take all necessary safety measures before using samples that are toxic or radioactive, or blood samples that are pathogenic or infectious. Use such samples on your own responsibility.
- Our centrifuge is not explosion proof centrifuge. Never use explosive or flammable samples, or materials that chemically react vigorously. Do not centrifuge such materials in this instrument nor handle or store them near the instrument.
- Check the chemical resistance chart provided with the rotor, and do not use any sample inapplicable to the rotor (including the buckets). Using such a sample could corrode the rotor (including the buckets).
- Please contact your nearest Hitachi Koki's representative if you have any questions about the samples you use.

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

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TempLab

HLIM-20A 2015.01

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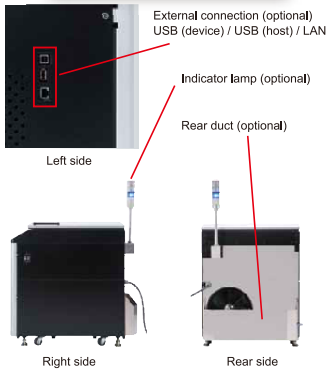
Optional products



Specifications

Model	CR7N
Maximum speed (rpm)	7,000
Maximum RCF (xg)	11,100 (R7A rotor)
Maximum capacity (nominal) (mL)	6,000 (R7A rotor or R5S2 rotor)
Speed control range (rpm)	300 to 7,000
Temperature adjustment range (°C)	−20 to +40
Timer	"min:sec" unit mode: a range from 1 second to 99 minutes 59 seconds with HOLD function for continuous operation "hr:min" unit mode: a range from 1 minute to 99 hours 59 minutes with HOLD function for continuous operation
Acceleration/deceleration control	9-stage variable acceleration control, 9-stage braked deceleration, plus free deceleration control
Program function	Capable of storing 30 sets of operating parameters, displaying/setting the RCF (xg) and g·sec, and RTC (real-time control) operation
Lockout function	Available
Machine log management function	Available
Driving motor	Induction motor (inverter-controlled)
Refrigerator	Inverter controlled rotary (Refrigerant: R410A)
Safety devices	Door interlock, dual-overspeed detector, imbalance detector and temperature control abnormality detector
Applicable standard	CE marking *1
Dimensions (mm)	730(W) x 845 (D) x 928 (H) (When the optional rear duct is installed: 948 (D) *2) (From bottom to the chamber inlet: 869 (H)) (When the optional indicator lamp is installed: 1,250 (H))
Screen display and operation	Color touch-sensitive LCD *3
Power requirements	·Supply required Single phase: AC200/208/220/230/240 V±10 %, 50/60 Hz, 30 A
Ambient temperature (°C)	Ambient temperature for operation: 2 to 40 Ambient temperature for performance guarantee: 15 to 25
Weight (kg)	320

Note
*1 CR7N satisfies CE marking requirements. The CE marking is an international symbol, which shows that the product conforms to EC directives.
*2 The rear duct is optional. This can reduce their cooling ability degradation when centrifuges are aligned.
*3 Please note that the LCD panel may contain a few dead or stuck pixels.

Features

High-capacity rotors for CR7N

Rotor type	Rotor type	Nominal capacity
Fixed angle rotor	R7A	6 L (1,000 mL PP/PC wide mouth bottle x 6 bottles)
Swinging bucket rotor	R5S2	6 L (1,000 mL PP/PC bottle x 6 bottles)
		400mL MAP bag x 6 bags or 400mL blood bag x 6 bags
	R4SS2	500 mL blood bag x 8 bags
	R5S3	400 mL blood bag x 12 bags

Fixed angle rotor

High-capacity light-weight rotor model ***R7A***

- Nominal capacity: 6 L (1,000 mL x 6 bottles)
- Actual capacity: 5.4 L (900 mL x 6 bottles)
- Max. 7,000 rpm (11,100 x g)
- For exclusive use with a wide-mouth 1-liter bottle
- For high-volume separation of bacteria and organelle from their culture liquid, and for rough separation in the manufacturing process of vaccines.
- Light-weight aluminum body (Net weight: 18.7 kg)
  (6 sets 1000PP bottle (WM) including 1000PP cap (WM) are standard accessories.)

1000PC bottle (WM) [P/N: S308357A, 6 pcs/box]
+ 1000PP cap (WM) [P/N: S410870A, 2 pcs/box]

1000PP bottle (WM) [P/N: S307700A, 6 pcs/box]
+ 1000PP cap (WM) [P/N: S410870A, 2 pcs/box]

Swinging bucket rotor

High-capacity swinging bucket rotor model ***R4SS2***

NEW

- Nominal capacity: 500 mL blood bag x 8 bags
- Max. 4,400 rpm (5,350 x g)
  (4 sets bucket and inner cup are standard accessories.
  4 sets shield cap are sold separately and upcoming products.)

Photo shown with optional blood bags.

Example of the use of blood bags

You can put an inner cup in the bucket easily.
The bucket has a longer life-span than our conventional one.
Patent pending
(As of Dec. 2014, by our investigation)

*This is the case of MAP bags.
**The blood bags are marketed products.
Nominal capacity of one blood bag is 500 mL.

*This illustration is an image of this example.

High-capacity swinging bucket rotor model ***R5S2***

- Nominal capacity: 6 L (1,000 mL x 6 bottles), MAP bag x 6 bags
- Max. 4,200 rpm (5,150 x g) for 1000AL bucket (B) including 1000PP/PC bottle
  Max. 4,200 rpm (5,150 x g) for 1000AL bucket (B) including blood bag
  Max. 3,800 rpm (4,210 x g) for MAP bucket
  (6 sets1000AL bucket (B) including inner cup (L) are sold separately. 6 sets MAP bucket including MAP inner cup are sold separately.)

User-friendly function

Function name	Description
User lockout	You can control user access (for **GMP/GLP** compliance).
Operation history	The centrifuge can automatically store an operation history (up to 100 operation parameters for past operations). You can re-use the operation history (Patented feature).
USB/LAN communications Option	You can load the operation history data stored in the centrifuge to a commercial USB memory stick in CSV format (for **GMP/GLP** compliance). You can manage operation results through LAN communication (for **GMP/GPL** compliance).
Indicator lamp Option	You can even check the current centrifuge status from a remote location with this indicator lamp.
Auto standby Ecology	You can lower the electric power consumption of the centrifuge when the auto standby is selected.