REFRIGERATED HIGH- AND LOW-SPEED CENTRIFUGE · SKU PRO7073

RITACUBA20R

Versatile refrigerated high- and low-speed laboratory centrifuge engineered for sample volumes from 2 to 250 ml, with precise temperature and speed control, rapid cooling, intelligent method storage and a corrosion-resistant nano-ceramic-coated chamber.

20,000 rpm	29,060 × g	4 × 250 ml	−20 to +40 °C
maximum speed	maximum RCF	maximum capacity	temperature range

NCP **Carbon-Fiber Composite Rotor Technology**
Lightweight · corrosion-resistant · learn more →

C **Ceramic-Coated Chamber**
Durable · smooth · corrosion-resistant ↓

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Controlled separation across a broad sample range

Refrigerated processing across 2–250 ml
Compatible rotor configurations support microtubes, round- and conical-bottom tubes, blood collection tubes and higher-volume vessels. The platform covers high-speed microtube work and lower-speed, higher-capacity separation under controlled temperature.

Reproducible processing
Speed accuracy of ±10 rpm, temperature accuracy of ±1.0 °C, ten acceleration/deceleration levels and storage for 99 custom programs help laboratories standardise frequently repeated methods.

Sample and operator protection
Automatic rotor recognition, imbalance protection, alarm functions and emergency lid release support controlled operation and sample recovery during an unexpected power interruption.

Key engineering features

Precise refrigeration control

The temperature setting range extends from −20 to +40 °C with accuracy of ±1.0 °C, supporting temperature-sensitive separation across high- and low-speed workflows.

Rapid cooling

Under the stated test conditions, the chamber cools from 25 °C to 4 °C in approximately six minutes using an environmentally considerate refrigerant.

Intelligent touchscreen operation

HD touch-panel control with storage for 99 custom programs and USB data export supports method recall and centrifugation-record documentation.

High- and low-speed flexibility

Interchangeable angle and swing-out rotors support high-speed microtube processing and lower-speed, higher-capacity workflows with vessels up to 250 ml.

Programmable, stable operation

Ten acceleration/deceleration levels, soft start/stop control, three-stage rubber vibration absorption and automatic balancing protect samples and support noise levels up to 60 dB(A).

NCP rotor and ceramic chamber technologies

Selected carbon nano-polymer composite rotors combine low mass, high strength, low thermal conductivity and corrosion resistance. The nano-ceramic chamber coating adds protection against corrosion and rust.

Laboratory applications

Clinical laboratories
Separation of blood fractions, urine sediments and other validated clinical specimens.

Molecular biology
Pelleting cells, nucleic-acid preparation steps and general microtube workflows.

Biochemistry
Clarification, phase separation and preparation of samples before downstream analysis.

Bioengineering & agriculture
Processing of cell suspensions, culture samples and research specimens.

Rotor, tube and speed must always be selected according to the validated method, sample characteristics and tube manufacturer's limits.

Technical specifications

Model	**RITACUBA20R**
Order number / SKU	**PRO7073**
Maximum speed	**20,000 rpm**
Maximum RCF	**29,060 × g**
Maximum capacity	**4 × 250 ml**
Speed accuracy	**±10 rpm**
Timer	**1 s–99 min 59 s / 1 min–99 h 59 min**
Stored programs	**99 custom programs**
Acceleration/deceleration	**10 adjustable levels**
Display	**5-inch HD touchscreen**
Data export	**USB optional**
Total power	**1,200 W**
Power supply	**AC 220 V ±10%, 50 Hz, 10 A**
Dimensions (W × D × H)	**63 × 47 × 34 cm**
Net weight	**65 kg**
Noise level	**≤60 dB(A)**
Temperature setting range	**−20 to +40 °C**
Temperature accuracy	**±1.0 °C**
Rapid cooling	**25 to 4 °C in approx. 6 min**
Refrigerant	**Environmentally considerate refrigerant**

Compatible rotors and adapter

Configuration notice: RITACUBA20R is supplied as a refrigerated centrifuge unit. The rotor and any required adapter are selected separately according to tube format, sample volume, target RCF, temperature requirement and workflow. Maximum instrument performance depends on the installed rotor; never exceed the limits stated for the rotor, adapter or tube.

SKU PRO6945

12 × 10 ml angle rotor

6,000 rpm · 6,321 × g

10 ml rounded-bottom tubes

NCP COMPOSITE ROTOR

SKU PRO3885

12 × 1.5/2 ml angle rotor

16,500 rpm · 21,610 × g

Microtubes: 1.5/2.0 ml

NCP COMPOSITE ROTOR

SKU PRO6935

24 × 1.5/2 ml angle rotor

15,000 rpm · 22,387 × g

Microtubes: 1.5/2.0 ml

NCP COMPOSITE ROTOR

SKU PRO6936

36 × 1.5/2 ml angle rotor

15,000 rpm · 22,262 × g

Microtubes: 1.5/2.0 ml

NCP COMPOSITE ROTOR

SKU PRO6937

48 × 1.5/2 ml angle rotor

12,000 rpm · 16,260 × g

Microtubes: 1.5/2.0 ml

NCP COMPOSITE ROTOR

SKU PRO6938

18 × 5 ml angle rotor

15,000 rpm · 24,148 × g

5 ml round-bottom tubes

NCP COMPOSITE ROTOR

SKU PRO6940

12 × 15 ml angle rotor

11,000 rpm · 15,620 × g

15 ml conical-bottom tubes; optional 12 × 5 ml adapter

NCP COMPOSITE ROTOR

SKU PRO6934

6 × 50 ml angle rotor

11,000 rpm · 14,440 × g

50 ml Falcon-type tubes; configurations for 6 × 15 ml conical or 6 × 10 ml round-bottom tubes

NCP COMPOSITE ROTOR

SKU PRO6946

4 × 250 ml swing-out rotor

4,000 rpm · 3,040 × g

Square cups; adapters support 50, 15, 10, 5 and 1.5 ml tubes and blood collection tubes

SKU PRO2852

6 × 100 ml angle rotor

11,000 rpm · 15,354 × g

Adapters for 6 × 50 ml, 6 × 15 ml and 6 × 3 × 10 ml tubes

NCP COMPOSITE ROTOR

Rotor image not assigned in the controlled CSV export

SKU PRO2859

4 × 120 ml angle rotor

4,000 rpm · 2,683 × g

Available adapters: 4 × 50 ml and 8 × 15 ml + 1.5 ml

PRO6941 · 12 × 5 ml ADR adapter
Round-bottom tube adapter for use with the PRO6940 rotor, subject to the stated rotor limit of 11,000 rpm / 15,620 × g.

Operational and safety functions

Emergency lid release

Provides controlled access to samples after a power interruption, following the operating manual and only after the rotor has fully stopped.

Multiple operating modes

Timed, inching, differential-time and gradient centrifugation modes support routine separation and more specialised refrigerated protocols.

Ergonomic rotor workflow

A one-turn NCP rotor-lid design, aerodynamic buckets, three-stage rubber shock absorption and automatic balancing support convenient, stable operation.

Configuration and specification disclaimer

Because RITACUBA20R supports numerous rotor, adapter and tube configurations, this general technical specification is neither exhaustive nor a final definition of the supplied system. Exact performance, capacity, temperature behaviour, compatibility, included components and operating limits depend on the selected configuration. Dedicated microplate buckets and other special configurations must be confirmed separately. Only the technical specification issued for the individual device and confirmed with the final quotation or delivery documentation represents the accurate specification of the equipment supplied.

COLO.SCIENCE | CENTRIFUGATION SUPPORT

Product support and configuration

COLO LabExperts
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SI-3255 Slovenia
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WhatsApp / Viber: +386 70 713 437

Send the tube type, sample volume, required capacity, target RCF and operating temperature. COLO Science will verify the RITACUBA20R, rotor and adapter combination before quotation.

View RITACUBA20R product | Centrifuges catalogue | Centrifuge overview | Request a quote / contact

Primary product action: RITACUBA20R product page · Direct support: sales@colo.si

Specifications may change as part of continuous product development. Rotor compatibility and maximum operating values must be confirmed in the current quotation and operating documentation.