high speed centrifuge with 20000rpm and 4 units of 100ml

High-speed centrifuges generate centrifugal force through high-speed rotation, which can quickly and effectively separate different components according to density differences. Widely used in biomedical research, clinical diagnosis, chemical, pharmaceutical and other fields.

High Speed Centrifuge (20,000rpm, 4×100ml)

High Speed and Large Capacity

1. Maximum speed of 20,000rpm for complex sample separation needs.
2. Capacity: 4 × 100ml, suitable for simultaneous processing of multiple small to medium samples, improving experimental efficiency.

Intelligent Control System

1. 5 customizable preset programs with one-key call for simplified operations and repetitive tasks.
2. Powerful program storage: supports 99 program groups for rapid switching and recall.
3. Electric door lock design with optional automatic chamber opening after centrifugation.
4. Long-press start and instantaneous button functions for rapid start/stop in urgent scenarios.

5. Gradient centrifugation supports ⩾15 speed and time settings for step-wise sample separation.

Kernel Performance

1. True-color HD LCD large screen with intuitive display of centrifugal force, speed, time, and other key info.
2. High-end microcomputer control system and direct-drive frequency conversion brushless motor for quick start, smooth running, and long service life.
3. Linear drive system with 15 acceleration and 15 deceleration settings for flexible, sample-specific optimization.
4. Supports start timing and arrival speed timing for precise control under different experimental conditions.

Safety and Security Design

1. Rotor automatic identification system to prevent wrong operation and ensure stability and safety.
2. High sensitivity electromagnetic induction door protection and double electronic door lock design for safe operation.
3. Multiple safety warning protections: overspeed, over-temperature, imbalance, etc., ensuring safe operation under any circumstance.
4. Three-layer all-steel structure and 316 stainless steel centrifugal chamber for enhanced strength, corrosion resistance, and long-term reliability.
5. Emergency opening function for quick sample removal in case of power outage or emergency.

Humanized Design and Details

1. Random tool rack for easy storage and access to accessories and tools.
2. Operation SOP guidance chart and video QR code for easy, standardized operation and reduced errors.
3. Quick locking rotor cover for fast installation/removal and reduced human error.
4. Low opening height and ergonomic design for easier operation and reduced exertion.
5. Special noise reduction system for quieter, more comfortable working environment.
6. Optional polymer material rotor for ultra-light weight and excellent corrosion resistance.

Working Principle

1. Separation based on centrifugal force: high-speed rotation causes heavier components to deposit rapidly at the bottom, lighter ones remain upper, achieving stratification and separation.
2. Centrifugal force is proportional to rotational speed; higher speed = stronger force and more effective separation.
3. Gradient centrifugation allows stepwise separation for multi-component samples.
4. Temperature control system (usually included) enables low-temperature centrifugation to prevent sample degradation from heat.

Application Areas

1. Biomedical research: separation and purification of cells, blood, proteins; used in gene research, cell culture, antibody production, etc.
2. Clinical experiment and diagnosis: centrifugation of blood, urine, biological samples for plasma, serum, cell components separation to support diagnosis/treatment.
3. Pharmaceutical industry: separation and purification of drug components, reaction products for drug research, development, and quality control.
4. Chemical analysis and research: separation of chemical reaction products, solution purification for organic synthesis and analysis.
5. Food and cosmetic industry: food composition analysis, impurity separation, extraction of cosmetic active ingredients for quality assurance.
6. Environmental monitoring: water quality, soil sample analysis, separation of pollutants/microorganisms for environmental protection and pollution source tracking.

Model	**C20**
Maximum speed	20000rpm
Maximum RCF	32868xg
maximum capacity	4x100ml
Rotation Speed Accuracy	±10rpm
Timer	1 second to 99 hours 59 minutes 59 seconds
Noise	≤62dB
Rotor Identification	yes
Power supply	230Vac, 50Hz, 10A
Power	500W
Overall dimensions	360x480x335mm
Net weight	37kg