## eppendorf



# Made For Your Workflows

Supporting you in every step of the bioprocess workflow – high-speed refrigerated floorstanding centrifuges.



### Centrifuge CR22N – The Harvesting Specialist

Whether your work requires harvesting of biomass in volumes of up to 6 L per run, pelleting of cells, subcellular organelles or larger viruses, or extraction, precipitation, concentration and purification of nucleic acids in up to 50 mL tubes, the Centrifuge CR22N is the optimal solution to support your everyday centrifugation tasks.

- > Speeds of up to 48,000 x q (fixed-angle) or 11,500 x q (swing-bucket) support applications in genomics, cell biology and proteomics
- > Unique 1.5 L triangular bottle for easy and time efficient harvesting of cell, yeast and bacterial cultures (up to 15,100 x q)
- > 4 different kits (rotor plus suitable consumables) tailored to your applications - choosing the right one is now easier than ever
- > Large touchscreen interface for fast and easy operation
- > User management and documentation function supports labs working in a GLP/GxP environment
- > Self-locking rotor system for increased safety and convenience



### Centrifuge CR30NX – The Multipurpose Solution

With high speeds up to  $110,000 \times q$ , this centrifuge reaches *q*-forces that cross into the range of ultracentrifugation, making it the optimal solution for laboratories with a broad application range. From harvesting of biomass via continuous flow to separation steps of small particles such as viruses, organelles, extracellular vesicles or nanoparticles, the outstanding versatility and performance of Centrifuge CR30NX covers them all.

- > 2-in-1 model: suitable for centrifugation steps with super-speed requirements (with vacuum function)
- > Unique 1.5 L triangular bottle for easy and time efficient harvesting of cell, yeast and bacterial cultures (up to 15,100 x *q*)
- > 8 different kits (rotor plus suitable consumables) tailored to your applications - choosing the right one is now easier than ever
- > Immediate rotor recognition and self-locking rotor system for highest level of user safety
- > Large touchscreen interface for fast and easy operation
- > User management and documentation functions support labs working in a GLP/GxP environment

### Unique 1.5 L Triangular Bottle – Spinning Made Easy



### Gain great flexibility and save precious time with our innovative triangular bottles:

- > No minimum filling level. Spin samples between 0 – 1.5 L without worrying about bottle stability
- > Reduces handling steps during the separation process such as balancing, supernatant harvesting, pellet recovery and cleaning of bottles after the run

### Super-Speed Rotors – No Switching Needed



> Learn more about our rotor and consumable solutions, kits and bundles available for your lab applications.

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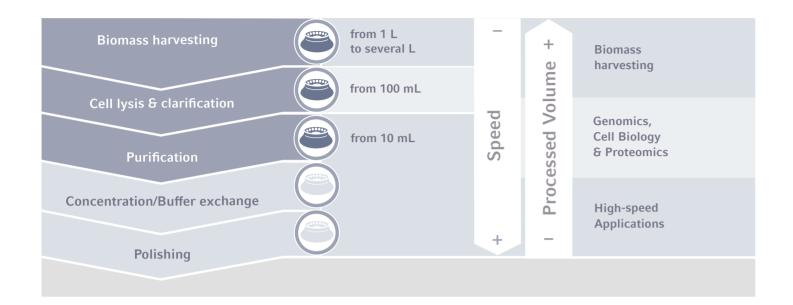


### Choose from two rotors with max. speed of 110,000 x g:

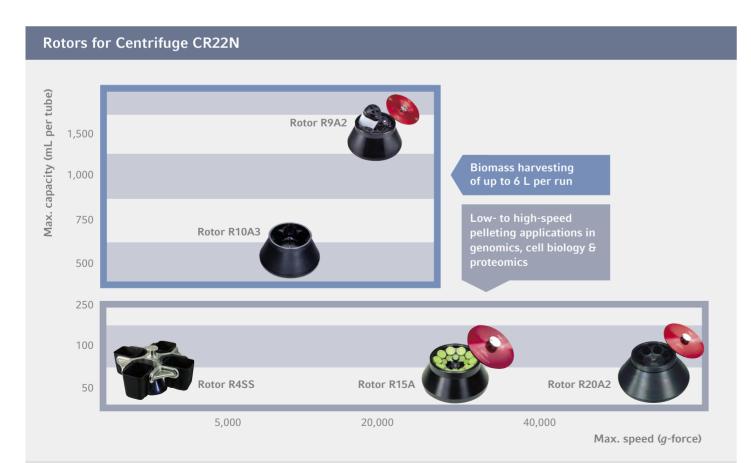
- > Top-loading swing-bucket rotor for high-speed density gradient applications (e.g. rate zonal or Isopycnic centrifugation)
- > Fixed-angle rotor for cell fractionation (e.g. Virus-, viral particle or exosome pelleting)
- > With the self-locking rotor system and the immediate rotor recognition, you can toggle between applications in just a few minutes

**Click here** 

### Centrifuge CR22N – For Your Everyday Harvesting Tasks



### Find the Right Rotor for Your Requirements



### Bundles and Kits – Tailored to Your Needs

Harvesting Bundle 4 x 1.5 L
Centrifuge CR22N + Rotor R9A2* + incl. 4 x triangular bottle 1,500 mL
> Max. capacity: 4 x 1,500 mL > Max. speed: 15,100 x <i>g</i> / 8,500 rpm
This bundle is the optimal solution for biomass harvesting in volumes of up to 6 Liter of cell, yeast and bacterial cultures (max. speed 15,100 x $g$ ).
Additionally, 4 different kits are available (rotor plus suitable consumables).

Harvesting Kit 6 x 0.5 L Rotor R10A3\*

+ Flat-bottom bottle 500 mL

> Max. capacity: 6 x 500 mL

> Max. speed: 18,800 x q /

10,000 rpm

### Low-Speed Pelleting Kit 15/50 mL conical

### Rotor R4SS

- + Adaptor 15/50 conical tubes
- + 15/50 mL conical tubes
- > Max. capacity: 40 x 14 mL > Max. speed: 2,900 x g /
- 4,000 rpm





\* Autoclavable



### High-Speed Pelleting Kit 8 x 50 mL tube

#### Rotor R20A2\*

- + High-speed round bottom tube 50 mL
- + M-PP-Lid
- > Max. capacity: 8 x 50 mL
- > Max. speed: 48,000 x g / 20,000 rpm



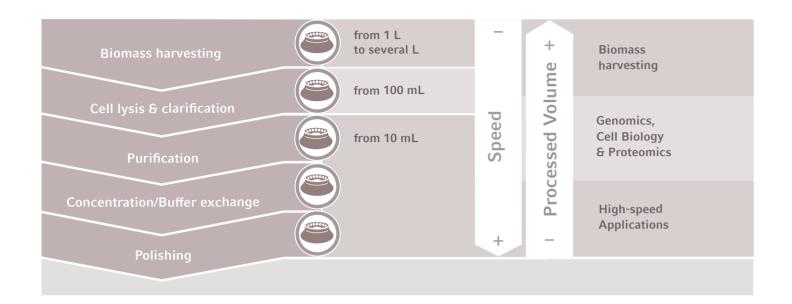
#### High-Speed Pelleting Kit 10 x 15/50 mL conical

#### Rotor R15A\* + 15/50 mL conical tubes

- > Max. capacity: 10 x 15/ 50 mL
- > Max. speed: 32,500 x g / 15,000 rpm



### Centrifuge CR30NX – For a Large Variety of Applications



### Find the Right Rotor for Your Requirements



Max. speed (g-force)

### Bundles and Kits – Tailored to Your Needs

Harvesting Bundle 4 x 1.5L				
Centrifuge CR30NX + Rotor R9A2* + incl. 4 x triangular bottle 1,500 mL				
> Max. capacity: 4 x 1,500 mL > Max. speed: 15,100 x <i>g</i> / 8,500 rpm				
This bundle is the best solution for you, if you want to harvest biomass in volumes of up to 6 Liters per run, but also need a centrifuge with the option to perform a wide range of applications with speeds of up to $110,00 \times g$ .				
Additionally, 8 different kits are available (rotor plus suitable consumables).				
	_			
Continuous Flow Kit	Harvesting Kit 6 x 1 L			
Rotor R10C2* > Max. capacity: Continuous flow rotor > Max. speed: 14,290 x g / 10,000 rpm	Rotor R7A* + Flat-bottom bottle 1,000 mL > Max. capacity: 6 x 1,000 mL > Max. speed: 11,100 x g / 7,000 rpm			
High-Speed Pelleting Kit 8 x 50 mL tube Rotor R20A2* + High-speed round bottom tube 50 mL + M-PP-Lid > Max. capacity: 8 x 50 mL > Max. speed: 48,000 x g / 20,000 rpm	High-Speed Pelleting Kit 8 x 50 mL conical Rotor R19A2* + 50 mL high-speed conical tubes > Max. capacity: 8 x 50 mL > Max. speed: 50,000 x g / 19,000 rpm			
* Autoclavable				



### Harvesting Kit 6 x 0.5 L

### Rotor R10A3\*

- + Flat-bottom bottle 500 mL
- > Max. capacity: 6 x 500 mL
- > Max. speed: 18,800 x g / 10,000 rpm
- 10,000 1011



#### Super-Speed Pelleting Kit 8 x 50 mL tube

#### Rotor R30AT\*

- + High-speed round bottom tube 50 mL
- > Max. capacity: 8 x 50 mL
- > Max. speed: 110,000 x g / 30,000 rpm



### Low-Speed Pelleting Kit 15/50 mL conical

#### Rotor R4SS

- + Adaptor 15/50 mL conical tubes
- > Max. capacity: 40 x 15 mL
- > Max. speed: 2,900 x g / 4,000 rpm



#### Super-Speed Pelleting Kit 6 x 40 mL tube

#### Rotor R25ST

- + High-speed round-bottom tube 40 mL
- > Max. capacity: 6 x 40 mL
- > Max. speed: 110,000 x g / 25,000 rpm



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### Centrifuge CR22N and Centrifuge CR30NX

Technical specifications			
Model	Centrifuge CR22N	Centrifuge CR30NX	
Max. RCF	 58,700 × g*	110,000 x g	
Max. speed	22,000 rpm	30,000 rpm	
Speed range	300 – 22,000 rpm	300 – 30,000 rpm	
Max. capacity	1.5 L x 4 (Rotor R9A2)	1.5 L x 4 (Rotor R9A2)	
Acceleration/ Breaking ramps	9/9	11/10	
Number of programs	30	1000	
Display	5.7 inch color touch-sensitive LCD panel	6.5 inch color touch-sensitive LCD panel	
Timer	1 s to 99 min 59 s (in increments of 1 s), Hold function	1 s to 99 min 59 s (in increments of 1 s) or 1 min to 99 h 59 min (in increments of 1 min), Hold function	
Noise Level	64 dB(A) at 1 m front (at 22,000 rpm)	< 56 dB(A)	
Power Supply	Single-phase, AC 200/208/220/230/	Single-phase, AC 200/208/220/230/ 240 V +/- 10%, 50/60 Hz, 30 A	
	240 V +/- 10%, 50/60 Hz, 30 A	Three-phase four-wire: AC 380 / 400 / 415 V	
Max. power consumption	3.2 kW	1.5 kW	
Footprint (WxDxH)	700 x 760 x 915 mm / 27,5 x 30 x 36 in	708 x 892 x 866 mm / 27,8 x 35,1 x 34 in	
Height (with open lid)	1,510 mm / 59,4 in	1,500 mm / 59 in	
Weight (w/o accessories)	260 kg / 573, 2 lbs	310 kg / 683,4 lbs	
Refrigerator	Rotary inverter driven compressor (Refrigerant: R410A)	Rotary inverter driven compressor (Refrigerant: R410 A)	
Temperature control range	-20 to	-20 to + 40 °C	
Vacuum system	n/a	n/a yes	
Safety functions	Interlock door, dual-overspeed detection, imbalance detector, over-temperature detector	Interlock door, dual-overspeed detection, imbalance detector, rotor cover detector, over-temperature detector	

\*with rotor R27A



For more information, please check our local website or contact your local sales representative.

www.eppendorf.com/your-centrifuge-solution

**Discover now** 

Your local distributor: www.eppendorf.com/contact Eppendorf AG · Barkhausenweg 1 · 22339 Hamburg · Germany eppendorf@eppendorf.com · www.eppendorf.com

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