### eppendorf



## Endless Possibilities

**Eppendorf Microcentrifuges** 



# Meet the next generation in microcentrifugation

We introduced our very first centrifuge in 1964 as an integral part of the Eppendorf Microliter System, and revolutionized life science research practices worldwide. To this day, the Eppendorf name remains synonymous with creative design, innovative technology and reliable performance that stand the test of time.

The Eppendorf approach to product development is about listening to our customer's needs, understanding daily laboratory routines and anticipating future trends. The result is a comprehensive line of microcentrifuges that serve the multiple applications you encounter in your lab—whether you just have to spin a few tubes at a time or need the extra versatility for handling plates and larger volume tubes directly on your lab bench. Our goal is to provide you with a product solution that not only leaves you thoroughly satisfied but that is also fun to work with. That is why Eppendorf microcentrifuges are designed to go beyond speed and capacity to offer you unparalleled ergonomic operation and superior temperature management. You will not only experience enhanced performance, but also exceptional joy in their use.

With this sound fundamental experience Eppendorf is proud to serve you as your expert partner in microcentrifugation.

# The benchmark in ergonomic operation

To make your daily routines faster and easier we strongly focus on the ergonomic aspects of our products. Today Eppendorf microcentrifuges set the standards in terms of design and userfriendliness. These key success factors have also been awarded the »excellent! Universal Design« certificate of the TÜV Nord organization.





**Virtually silent operation** Eppendorf centrifuges are designed for whisper quiet operation to benefit your work environment—you can work right next to them while they are running.



**Soft-touch lid closure** All our centrifuges are equipped with a soft-touch one-finger lid closure. Just lower the lid gently and it will lock automatically. No more pressing or slamming down the lid.



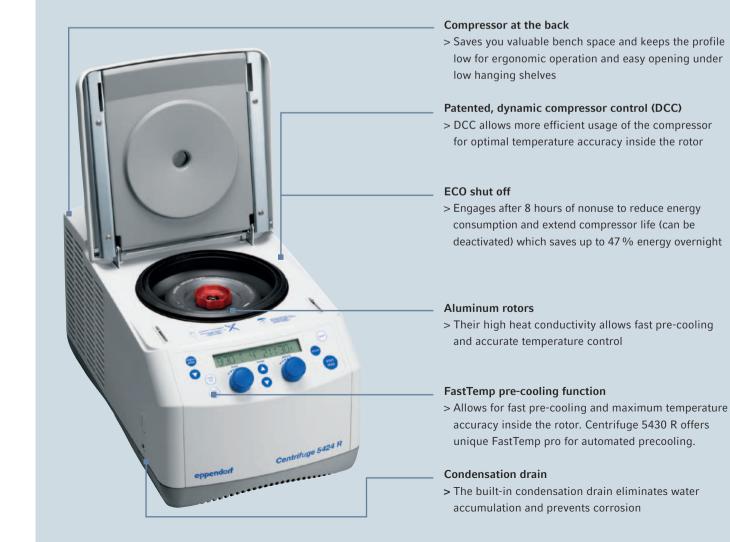
**Intuitive operation** Large, full-digit displays and intuitively labeled keys make operation super simple.



**Eppendorf QuickLock® rotors** Our aerosol-tight Eppendorf QuickLock rotors close with only 1/4 of a turn. This not only saves you time but also takes repetitive stress off your wrist.

### Superior temperature management

Eppendorf's commitment is to provide you centrifuges that offer the cooling performance you need for successful experiments. Our refrigerated microcentrifuges are best in class when it comes to energy efficiency and sample protection. But that's not all: Non-refrigerated Centrifuge 5424 features a unique cooling concept. Instead of ventilating air directly through the rotor bowl it employs fans to guide air around the outside of the rotor chamber where specially designed cooling fins ensure an optimal heat exchange to minimize sample warming. The additional benefits: The lid of Centrifuge 5424 seals the rotor chamber which leads to a significant noise reduction and prevents particles from being blown into the lab environment.



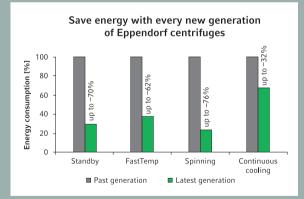
»Our Eppendorf microcentrifuges provide exactly what we expect. Not only speed and cooling performance, but also ease of use and a quality that is second to none! Thus they significantly increase our efficiency and give us more time to focus on our research.«

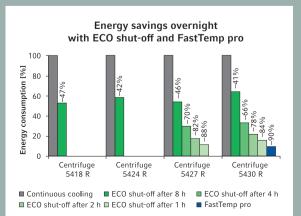
> Dr. Per Hoffmann Institute for Human Genetics Biomedical Center, Bonn, Germany



### Energy saving right from the start







As a commitment to the environment and future generations we constantly look for ways to improve the eco-friendliness of our products. This already started many years ago when we switched all our refrigerated models to CFC-free refrigerants with zero ozone depletion potential.

We continue to further reduce energy consumption of our centrifuges by optimizing motor systems, building lighter weight rotors, and using highly efficient compressor systems. All our centrifuges follow our epGreen philosophy by providing several eco-friendly product features—for example:

- > Use of highly efficient, brushless induction motors
- > Unique ECO shut-off deactivates the compressor
- after 1 to 8 hours of nonuse for up to 84 % energy savings > New standby module (for Centrifuge 5427 R and
- Centrifuge 5430 R) additionally reduces baseline energy consumption to a minimum
- > FastTemp pro<sup>®</sup> (Centrifuge 5430 R) allows for automated pre-cooling based on preprogrammable time and date which saves up to 90 % of energy (see page 13 for more details)
- > Rotors made of 100 % recyclable aluminum
- > Recyclable packaging material



## MiniSpin<sup>®</sup>/MiniSpin<sup>®</sup> plus

### Entry-level centrifuges

Powerful and easy-to-use MiniSpin and MiniSpin plus microcentrifuges are small enough so that each workstation can be equipped with a »personal« centrifuge.

Two models are available to meet your performance requirements. MiniSpin plus provides speed sufficient for molecular applications.

#### **Product features**

- > Capacity: 12 × 1.5/2.0 mL, 2 × PCR strip
- > Speed up to 12,100/14,100 × g (13,400/14,500 rpm)
- > Extremely compact footprint
- > Digital display for reproducible setting of time and speed
- > Rotor, inner centrifuge lid and lid latch are made of metal for maximum operational safety
- > Soft-touch lid closure for ergonomic lid locking
- > Lid opens automatically at the end of the run to prevent sample warming and to allow easy access to samples

#### Additional features of MiniSpin plus

- > Automatic rpm/rcf conversion
- > Extended time to 99 min or continuous centrifugation

Ordering information	
Description	Order no.
MiniSpin <sup>®</sup> , with 12 × 1.5/2.0 mL rotor	5452 000.018
MiniSpin <sup>®</sup> plus, with 12 × 1.5/2.0 mL rotor	5453 000.011
Rotor 2 × PCR-strip, with lid (F-55-16-5-PCR)	5452 727.007
Adapter for all 1.5/2.0 mL microcentrifuge rotors	
Adapter for 0.2 mL PCR tubes (set of 6)	5425 715.005
Adapter for 0.4 mL tubes (set of 6)	5425 717.008
Adapter for 0.5 mL tubes and 0.6 mL Microtainer®	5425 716.001
(set of 6)	

All listed models are 230 V/50-60 Hz.

\*All products which are marked with the CE-IVD symbol meet the requirements of the European Directive on IVD (98/79/EG).



### Centrifuge 5418/5418 R

### Medium capacity for molecular biology

Centrifuges 5418 and 5418 R with their 18-place capacity rotors are specifically designed for low to medium capacity in 1.5/2.0 mL tubes and Microtainer<sup>®</sup>.

Their speed of up to  $16,873 \times g$  allows for standard molecular biology applications.

### Product features

- > Capacity: 18 × 1.5/2.0 mL
- > Speed up to 16,873 × g (14,000 rpm)
- > Compact footprint to fit on crowded lab benches
- > OptiBowl<sup>®</sup> design allows for whisper quiet operation without rotor lid to benefit your work environment
- > Soft-touch one-finger lid closure for ergonomic operation
- > Automatic lid opening at the end of the run—prevents sample warming and allows easy access to samples
- > Aerosol-tight rotor for safe centrifugation of hazardous samples
- > Eppendorf QuickLock<sup>®</sup> rotor allows fast and ergonomic lid locking

### Additional features of refrigerated Centrifuge 5418 R

- > Temperature range from 0°C to 40°C
- > FastTemp function for fast pre-cooling and maximum temperature accuracy inside the rotor
- > ECO shut-off engages after 8 hours of nonuse to reduce energy consumption (47 % overnight) and extends compressor life (can be deactivated)

Ordering information	
Description	Order no.
Centrifuge 5418	
with 18 × 1.5/2.0 mL aerosol-tight QuickLock rotor	5418 000 017
Centrifuge 5418 R (refrigerated)	
with 18 × 1.5/2.0 mL aerosol-tight QuickLock rotor	5401 000.013
Adapter for all 1.5/2.0 mL microcentrifuge rotors	
Adapter for 0.2 mL PCR tubes (set of 6)	5425 715.005
Adapter for 0.4 mL tubes (set of 6)	5425 717.008
Adapter for 0.5 mL tubes and 0.6 mL Microtainer®	5425 716.001
(set of 6)	
All listed models are 220 V/E0 40 Hz	

\*All products which are marked with the CE-IVD symbol meet the requirements of the European Directive on IVD (98/79/EG).

All listed models are 230 V/50-60 Hz



### Centrifuge 5424/5424 R

### The laboratory standard

Centrifuge 5424 and 5424 R are the new laboratory standard. With their 24-place capacity and speed up to  $21,130 \times g$  they are perfectly equipped for all modern molecular biology applications in Eppendorf and PCR tubes. When working with MiniPrep spin column kits — the unique Eppendorf Kit rotor<sup>®</sup> with raised rim solves the issue of open tube caps shearing off during the elution step.

Refrigerated Centrifuge 5424 R features state of the art cooling technology to ensure energy efficiency and high temperature accuracy for maximum sample protection. For ease-of-operation and time savings, Centrifuge 5424 R cools down to 4°C in only 8 minutes.

### Product features

- > Capacity: 24 × 1.5/2.0 mL, 4 × PCR strips
- > Speed up to 21,130 × g (15,000 rpm)
- > OptiBowl design allows for whisper quiet operation without rotor lid
- > Soft-touch one-finger closure for ergonomic operation
- > Automatic lid opening at the end of the run—prevents sample warming

### Additional features of refrigerated Model 5424 R

- > Temperature range from –10 °C to 40 °C
- > ECO shut-off engages after 8 hours of nonuse to reduce energy consumption (42 % overnight) and extend compressor life (can be deactivated in menu)
- > Built-in condensation drain to eliminate water accumulation

\*All products which are marked with the CE-IVD symbol meet the requirements of the European Directive on IVD (98/79/EG).



> Watch video clips of Centrifuge 5424 and Centrifuge 5424 R on our dedicated website for mobile devices or www.eppendorf.com/centrifugation



**Aerosol-tight rotor for 24 × 1.5/2.0 mL tubes** provides speed up to 21,130 × *g*/15,000 rpm. (FA-45-24-11; Order no. 5424 702.007).



**Eppendorf Kit rotor**<sup>®</sup> **for 18 × spin columns and 1.5/2.0 mL tubes** with speed up to  $18,111 \times g/15,000$  rpm. This rotor is designed with an extended rim that protects tube caps from shearing off (FA-45-18-11-Kit; Order no. 5424 706.002).



Aerosol-tight rotor for  $24 \times 1.5/2$  mL tubes with PTFE-coating for high chemical resistance. Provides speed up to  $21,130 \times g/$ 15,000 rpm (FA-45-24-11-Special; Order no. 5424 700.004).



**4 × PCR-strip rotor** for centrifugation up to 18,615 × *g*/15,000 rpm (F-45-32-5-PCR; Order no. 5424 704.000).

#### Ordering information

	Order no.	Order no.
Description	Knob	Keypad
Centrifuge 5424		
with $24 \times 1.5/2.0$ mL aerosol-tight rotor	5424 000.410	5424 000.010
without rotor	5424 000.614	5424 000.215
Centrifuge 5424 R (refrigerated)		
with 24 × 1.5/2.0 mL aerosol-tight rotor	5404 000.413	5404 000.014
without rotor	5404 000.618	5404 000.219
Adapter for all 1.5/2.0 mL microcentrifuge rotors	Order no.	
Adapter for 0.2 mL PCR tubes (set of 6)	5425 715.005	
Adapter for 0.4 mL tubes (set of 6)	5425 717.008	
Adapter for 0.5 mL tubes and 0.6 mL Microtainer® (set of 6)	5425 716.001	
All listed models are 230 V/50–60 Hz.		



## Centrifuge 5427 R

### High-throughput refrigerated microcentrifuge

Centrifuge 5427 R was designed with high-throughput research applications in mind. With its aerosol-tight 48-place rotor it handles even the toughest challenges in a safe and reliable manner to provide you the efficiency boost you need. All aerosol-tight rotors, including the new rotors for Eppendorf Tubes<sup>®</sup> 5.0 mL as well as the 24 × 1.5/2.0 mL swing-bucket rotor, are equipped with Eppendorf QuickLock lids for easy rotor lid opening and closing.

Choose the Centrifuge 5427 R if a 24-place microcentrifuge (e.g., Centrifuge 5424 R) doesn't meet your needs regarding tube capacity and if you don't need the extra versatility our cross-over Centrifuge 5430 R can offer you.

### **Product features**

- > Capacity: 48 × 1.5/2.0 mL, 12 × 5.0 mL
- > Speed up to 25,000 × g (16,220 rpm)
- > High-capacity 48-place rotor
- > Aerosol-tight Eppendorf QuickLock rotor lids allow for fast and ergonomic lid locking.
- > Whisper quiet operation due to optimized sound design
- > Soft-touch one-finger closure for ergonomic operation
- > Temperature range from -10°C to 40°C
- > FastTemp program optimized for fast 11 min pre-cooling
- > ECO shut-off can be programmed to engage after 1, 2, 4 or 8 hours of nonuse for energy savings up to 88 % and extended compressor life (see page 5 for more details)

\*All products which are marked with the CE-IVD symbol meet the requirements of the European Directive on IVD (98/79/EG).



> Watch video clips of Centrifuge 5427 R on our dedicated website for mobile devices or www.eppendorf.com/centrifugation





Rotor for  $48 \times 1.5/2.0$  mL tubes provides speed up to  $18,210 \times g/12,700$  rpm (FA-45-48-11\*; Order no. 5409 710.001). Also available with basic plastic lid (F-45-48-11; Order no. 5409 712.004).



Rotor for 30 × 1.5/2.0 mL tubes provides speed up to 20,800 × *g*/14,000 rpm (FA-45-30-11\*; Order no. 5409 706.004). Also available with basic plastic lid (F-45-30-11; Order no. 5409 708.007).



**Rotor for 24 × 1.5/2.0 mL tubes** provides speed up to 25,000 × *g*/16,220 rpm (FA-45-24-11\*; Order no. 5409 702.009).



Swing-bucket rotor for  $24 \times 1.5/2.0$  mL tubes spins up to  $16,050 \times g/12,700$  rpm. Swing-bucket design is ideal for phase separation (S-24-11-AT\*; Order no. 5409 715.003).



**Eppendorf Kit rotor for 24 × spin columns and 1.5/2.0 mL tubes.** Designed with an extra high rim to support open tube lids during centrifugation. Spins at max. 19,100 × *g*/13,200 rpm (FA-45-24-11-Kit\*; Order no. 5409 704.001).



6 × PCR strip rotor with speed up to 11,710 × g/10,500 rpm (F-45-48-5-PCR; Order no. 5409 714.007).



Rotor for 12 × 5.0 mL Eppendorf Tubes provides speed up to 20,600 × g/14,000 rpm (FA-45-12-17\*; Order no. 5409 700.006). Adapters for smaller tubes available: > 1.5/2.0 mL, pk/4 (Order no. 5820 768.002) > Cryotubes, pk/4 (Order no. 5820 769.009) > HPLC vials, pk/4 (Order no. 5820 770.007)

Orde	rina	inform	ation

Description	Order no.	
Centrifuge 5427 R		
with $48 \times 1.5/2.0$ mL aerosol-tight QuickLock rotor	5409 000.217	
with $30 \times 1.5/2.0$ mL aerosol-tight QuickLock rotor	5409 000.535	
with $12 \times 5.0$ mL aerosol-tight QuickLock rotor	5409 000.632	
without rotor	5409 000.012	
Adapter for all 1.5/2.0 mL microcentrifuge rotors		
Adapter for 0.2 mL PCR tubes (set of 6)	5425 715.005	
Adapter for 0.4 mL tubes (set of 6)	5425 717.008	
Adapter for 0.5 mL tubes and 0.6 mL Microtainer <sup>®</sup> (set of 6)	5425 716.001	

All listed models are 230 V/50–60 Hz.



### Centrifuge 5430/5430 R

### Microcentrifuge with multipurpose capabilities

Unique cross-over Centrifuges 5430 and 5430 R combine the best features of a microcentrifuge (small footprint) and multipurpose centrifuge (versatility) in one instrument. These centrifuges spin rotors for Eppendorf tubes and PCR strips as you would expect from any microcentrifuge. But that's not all. In a compact size, Centrifuges 5430 and 5430 R also accommodate a fixed-angle rotor for 15/50 mL conical tubes, Vacutainer<sup>®</sup>, 10 to 50 mL OakRidge tubes, cryo and HPLC vials as well as a swingbucket rotor for MTP and PCR plates. Until now, this has only been possible with large multipurpose centrifuges.

### Product features

- > Capacity: 48 × 1.5/2.0 mL, 6 × 50 mL, 2 × MTP
- > Speed up to 30,130 × g (17,500 rpm)
- > Soft-touch closure for ergonomic operation
- > Menu-driven, multi lingual operation menu (English, German, French, Spanish) with large backlit display
- > Saves up to 50 user-defined programs—5 program keys for easy access to routine programs

### Additional features of refrigerated Model 5430 R

- > Temperature range from -11 °C to 40 °C
- > FastTemp program for fast pre-cooling and maximum temperature accuracy inside the rotor
- > ECO shut-off can be programmed to engage after 1, 2, 4 or 8 hours of nonuse for up to 84 % energy savings and extended compressor life

### Easy pre-cooling with FastTemp pro®

In addition to the standard FastTemp pre-cooling program Eppendorf Centrifuge 5430 R features a unique software option called FastTemp pro. This program allows for automated pre-cooling based on pre-programmable time and date. FastTemp pro can be set to a specific date or as a repetitive event during several days every week. Simply turn the centrifuge into standby mode when you leave your lab and let FastTemp pro take care of pre-cooling in the morning. This not only makes operation super easy, it also saves you up to 90 % of energy over night.



#### 100 90 80 70 Energy consumption [%] You save 41% 60 50 You save 40 66% 30 You save 78% You save 20 84% You save 90% 10 8 h ECO 4 h ECO 2 h ECO Continuous 1 h ECO Standby cooling shut-off shut-of shut-off shut-off FastTemp pro

Energy savings overnight with ECO shut-off and FastTemp pro

**Up to 90% energy savings with FastTemp pro** Energy savings of ECO shut-off (with 8, 4, 2, and 1 hour setting) and FastTemp pro compared to continuous overnight cooling (17 hours).

+ FastTemp

+ FastTemp

+ FastTemp

+ FastTemp

#### Ordering information

	Order no.	Order no.
Description	Knob	Keypad
Centrifuge 5430		
with 30 × 1.5/2.0 mL aerosol-tight QuickLock rotor	5427 000.410	5427 000.216
without rotor	5427 000.615	5427 000.011
Centrifuge 5430 R (refrigerated)		
with 30 × 1.5/2.0 mL aerosol-tight QuickLock rotor	5428 000.414	5428 000.015
without rotor	5428 000.619	5428 000.210
Adapter for all 1.5/2.0 mL microcentrifuge rotors	Order no.	
Adapter for 0.2 mL PCR tubes (set of 6)	5425 715.005	
Adapter for 0.4 mL tubes (set of 6)	5425 717.008	
Adapter for 0.5 mL tubes and 0.6 mL Microtainer® (set of 6)	5425 716.001	

All listed models are 230 V/50-60 Hz



### Versatility for your needs

Rotors for Centrifuges 5430/5430 R



**Rotor for 48 × 1.5/2.0 mL tubes** spins up to  $18,210 \times g/12,700$  rpm (FA-45-48-11\*/\*\*\*\*; Order no. 54277 540.081). Also available with basic plastic lid (F-45-48-11\*\*\*\*; Order no. 54277 550.041).



**Rotor for 30 × 1.5/2.0 mL tubes** spins up to 20,817 × *g*/14,000 rpm (FA-45-30-11\*/\*\*\*; Order no. 5427 753.001). Also available with basic plastic lid (F-45-30-11\*\*\*; Order no. 5427 712.003).



High-speed rotor for  $24 \times 1.5/2.0$  mL tubes spins up to  $30,130 \times g/17,500$  rpm for fast separation results. (FA-45-24-11-HS\*\*/\*\*\*; Order no. 5427 710.000).



Swing-bucket rotor for 24 × 1.5/2.0 mL tubes spins up to 16,050 × *q*/12,700 rpm. Ideal for phase separation (S-24-11-AT\*/\*\*\*\*; Order no. 54277 570.071).



**Eppendorf Kit rotor** for 24 × spin columns and 1.5/2.0 mL tubes. Designed with an extra high rim to support open tube lids during centrifugation. Spins at max. 19,090 × q/13,200 rpm (FA-45-24-11-Kit\*; Order no. 5427 752.005).



Rotor for 16 × 5.0 mL Eppendorf Tubes with speed up to  $21,190 \times q/14,200$  rpm (FA-45-16-17\*/\*\*\*\*; Order no. 54277 500.021). Adapters for smaller tubes available: > 1.5/2.0 mL, pk/4 (Order no. 5820 768.002) > Cryotubes, pk/4 (Order no. 5820 769.009) > HPLC vials, pk/4 (Order no. 5820 770.007)



8 × PCR strip rotor with removal adapters that can be used as a pipetting rack; maximum speed is  $13,543 \times g/11,800$  rpm (F-45-64-5-PCR; Order no. 5427 714.006, includes adapters).



18-place rotor for Cryovials® and HPLC tubes. Speed up to  $8,324 \times g/8,900$  rpm (F-45-18-17-Cryo; Order no. 5427 705.007 incl. cryo adapters). Additional adapters: HPLC vials, pk/18; Order no. 5427 708.006



2-place swing-bucket rotor for MTP, PCR and deepwell plates of up to 29 mm height; speed up to  $2,204 \times q/4,680$  rpm. (A-2-MTP; Order no. 5427 700.005).



 $6 \times 15/50$  mL conical tube rotor accommodates 12 × Vacutainer,  $6 \times 15/50$  mL conical tubes. Max. speed of 7,815 × g/7,830 rpm (F-35-6-30; Order no. 5427 716.009, includes adapters for 15 mL and 50 mL conical tubes).

\* Aerosol-tight and Eppendorf QuickLock-sealing \*\*Aerosol-tight \*\*\*PTFE coated for chemical resistance

\*\*\*\*Please contact your local Eppendorf organization or dealer about required software update for your existing devices(s).

#### Adapter options 6 × 15/50 mL conical tube rotor

Rotor capacity <sup>1</sup>	Tube Dimensions Ø × L (min-max)	Max. RCF	For bore hole	Order no. (set of 2)
12	13 × 65–89 mm	6,443 × g	Small	5427 740.007
		6,100 × <i>g</i>	Large	5427 742.000
12	13 × 90–110 mm	7,471 × g	Small	5427 741.003
		7,129 × g	Large	5427 743.006
12	16 × 75–105 mm	7,005 × g	Small	5427 732.004
	16 × 90–105 mm	7,005 × g	Large	5427 734.007
12	17 × 90–125 mm	7,745 × g	Small	5427 735.003
		7,403 × <i>g</i>	Large	5427 738.002
12	17.5 × 80 mm	6,237 × g	Small	5427 746.005
		7,129 × g	Large	5427 747.001
6	17.5 × 100–125 mm	7,540 × g	Small	5427 726.004
6	26 × 92–112 mm	7,087 × g	Large	5427 736.000
6	29 × 95–125 mm	7,581 × g	Large	5427 737.006
6	29.5 × 100–125 mm	7,197 × g	Large	5427 727.000 <sup>2</sup>
6	29.5 × 100–125 mm	7,567 × g	Large	5427 723.005
	$ \begin{array}{c}     capacity^{1} \\     12 \\     12 \\     12 \\     12 \\     12 \\     12 \\     12 \\     12 \\     12 \\     6 \\     6 \\     6 \\     6 \\     6 \\     6 \\     6 \\   \end{array} $	capacity1       Ø x L (min-max)         12       13 × 65-89 mm         12       13 × 90-110 mm         12       16 × 75-105 mm         12       16 × 90-105 mm         12       17 × 90-125 mm         12       17.5 × 80 mm         6       26 × 92-112 mm         6       29 × 95-125 mm         6       29.5 × 100-125 mm	$\begin{array}{c cccc} \hline capacity^1 & \ensuremath{\cancel{0}} \times L \mbox{ (min-max)} & \ensuremath{RCF} \\ \hline 12 & 13 \times 65 - 89 \mbox{ mm} & 6,443 \times g \\ \hline 12 & 13 \times 90 - 110 \mbox{ mm} & 7,471 \times g \\ \hline 12 & 13 \times 90 - 110 \mbox{ mm} & 7,015 \times g \\ \hline 12 & 16 \times 75 - 105 \mbox{ mm} & 7,005 \times g \\ \hline 12 & 16 \times 90 - 105 \mbox{ mm} & 7,005 \times g \\ \hline 12 & 17 \times 90 - 125 \mbox{ mm} & 7,745 \times g \\ \hline 12 & 17.5 \times 80 \mbox{ mm} & 6,237 \times g \\ \hline 12 & 17.5 \times 100 - 125 \mbox{ mm} & 7,540 \times g \\ \hline 6 & 26 \times 92 - 112 \mbox{ mm} & 7,087 \times g \\ \hline 6 & 29 \times 95 - 125 \mbox{ mm} & 7,581 \times g \\ \hline 6 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline \end{array}$	$\begin{array}{c cccc} \hline capacity^1 & \ensuremath{\cancel{9}} \times L \mbox{ (min-max)} & \ensuremath{RCF} & \ensuremath{hole} \\ \hline 12 & 13 \times 65 - 89 \mbox{ mm} & 6,443 \times g & \ensuremath{Small} \\ \hline 12 & 13 \times 90 - 110 \mbox{ mm} & 7,471 \times g & \ensuremath{Small} \\ \hline 12 & 13 \times 90 - 110 \mbox{ mm} & 7,471 \times g & \ensuremath{Small} \\ \hline 7,129 \times g & \ensuremath{Large} \\ \hline 12 & 16 \times 75 - 105 \mbox{ mm} & 7,005 \times g & \ensuremath{Small} \\ \hline 16 \times 90 - 105 \mbox{ mm} & 7,005 \times g & \ensuremath{Small} \\ \hline 12 & 17 \times 90 - 125 \mbox{ mm} & 7,745 \times g & \ensuremath{Small} \\ \hline 12 & 17.5 \times 80 \mbox{ mm} & 6,237 \times g & \ensuremath{Small} \\ \hline 7,129 \times g & \ensuremath{Large} \\ \hline 6 & 26 \times 92 - 112 \mbox{ mm} & 7,087 \times g & \ensuremath{Large} \\ \hline 6 & 29 \times 95 - 125 \mbox{ mm} & 7,581 \times g & \ensuremath{Large} \\ \hline 6 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g & \ensuremath{Large} \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 29.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 20.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 20.5 \times 100 - 125 \mbox{ mm} & 7,197 \times g \\ \hline 12 & 20.5 \times 100 - 125 \mbox$

<sup>1</sup> Please perform a manual test to determine the actual loading capacity.

<sup>2</sup> Three sets of 2 are included within 6 × 15/50 mL rotor package <sup>3</sup> Adapter accommodates skirted 50 mL conical tubes.

# A system striving for perfection

Eppendorf has always listened to customers and worked together with them on improving existing workflows. Since 1964 Eppendorf is offering system solutions that make everyday lab routines faster and easier. Whether it is spinning down samples, transferring liquids, storing samples at -80 °C or incubating them at up to 100 °C, the perfect combination of Eppendorf instruments, Eppendorf Tubes<sup>®</sup>, plates and pipette tips will help you to excel your research and give you the best working experience possible.



High-speed centrifuge rotors and high centrifugation resistance of our tubes allow you to get your results even quicker.



Adapters for most common swing-bucket and fixed-angle rotors make it easy to integrate the Eppendorf Tubes into existing centrifuges.



Optimized thermoblocks guarantee accurate temperature control and efficient mixing in Eppendorf ThermoMixer<sup>®</sup> and MixMate<sup>®</sup>.



For sample preparation and storage, we offer the ideal racks and boxes for our Eppendorf Tubes.



Broad range of pipettes from 0.1  $\mu$ L to 10 mL. The complementary set of epT.I.P.S.<sup>®</sup> allows for stress-free and contamination–free work.



A broad range of adapters make for easy integration into our automated pipetting system epMotion®



### Eppendorf Tubes® 0.5/1.5/2.0 and 5.0 mL

### The perfect addition

Eppendorf Tubes combine all the experience from 50 years of constant improvement and development. The original Eppendorf Tube gives you outstanding stability during centrifugation, perfect sealing and evaporation protection.

> The NEW Eppendorf 5.0 mL System at

www.eppendorf.de/5mlsystem

### Product features

- > Hinged lid of Eppendorf Safe-Lock tubes prevent accidental lid opening during incubation
- > High centrifugation resistance (up to  $30,000 \times q$ ) prevents tube breakage
- > Precise lid sealing for lowest evaporation rates during storage
- > Manufactured free from slip agents, plasticizers and biocides-substances that have been shown to leach from plastic consumables into the sample and negatively affect assay results
- > Available in Protein and DNA/RNA LoBind quality

### Ordering information

Eppendorf Tube		0.5 mL, Safe-Lock	1.5 mL, Safe-Lock	2.0 mL, Safe-Lock	5.0 mL <sup>3</sup>
Eppendorf Quality	clear	0030 121.023	0030 120.086	0030 120.094	0030 119.401
		500 pcs. (1 × pk/500)	1,000 pcs. (1 × pk/1,000)	1,000 pcs. (1 × pk/1,000)	200 pcs. (2 × pk/100)
PCR clean <sup>1</sup>	clear	0030 123.301	0030 123.328	0030 123.344	0030 119.460
		500 pcs. (1 × pk/500)	1,000 pcs. (1 × pk/1,000)	1,000 pcs. (1 × pk/1,000)	200 pcs. (2 × pk/100)
Eppendorf Biopur <sup>®2</sup>	clear	0030 121.570	0030 121.589	0030 121.597	0030 119.479
		50 pcs. (50 × pk/1)	100 pcs. (100 × pk/1)	100 pcs. (100 × pk/1)	50 pcs. (50 × pk/1)
Protein LoBind	clear	0030 108.094	0030 108.116	0030 108.132	0030 108.302
(PCR clean) <sup>1</sup>		100 pcs. (2 × pk/50)	100 pcs. (2 × pk/50)	100 pcs. (2 × pk/50)	100 pcs. (2 × pk/50)
DNA LoBind	clear	0030 108.035	0030 108.051	0030 108.078	0030 108.310
(PCR clean) <sup>1</sup>		250 pcs. (5 × pk/50)	250 pcs. (5 × pk/50)	250 pcs. (5 × pk/50)	200 pcs. (4 × pk/50)

<sup>1</sup>PCR clean: Batch-certified free from DNA, DNase, RNase, and PCR inhibitors. <sup>2</sup>Biopur: Batch-certified sterile and free from DNA, DNase, RNase, PCR inhibitors, ATP and pyrogens/endotoxins. Individually packaged. <sup>3</sup>Also available in Sterile (Batch-certified sterile and free from pyrogens/endotoxins): 0030 119.487, 200 pcs. (10 × pk/20)

#### Eppendorf Microcentrifuges





Model	MiniSpin/MiniSpin plus	Centrifuges 5418/5418 R
Description	Entry-level centrifuges	Medium capacity for molecular biology
Max. Capacity	12 × 2.0 mL	18 × 2.0 mL
Max. Speed	12,100/14,100 × g	16,873 × g
	13,400/14,100 rpm	14,000 rpm
Time setting	15s-30min/15s-99min, infinite	30s–9h 59min, infinite
Acceleration time (seconds) <sup>1</sup>	13	13
Braking time (seconds) <sup>1</sup>	12	13
Noise level (dBA)	< 49/52	< 52/49
Rotor options	2	1
for 1.5/2.0 mL tubes, 12-place	12,100/14,100 × g	
for 1.5/2.0 mL tubes, 18-place		16,873 × g <sup>AT,Q</sup>
for 1.5/2.0 mL tubes, 24-place	_	_
for 1.5/2.0 mL tubes, 24-place, Swing-bucket	_	_
for 1.5/2.0 mL tubes, 30-place	-	_
for 1.5/2.0 mL tubes, 48-place	-	_
for Spin columns kits and 1.5/2.0 mL Tube	-	_
for Eppendorf Tube 5.0 mL		_
for PCR-tubes/strips	-	_
for Cryo tube and HPLC vials	_	_
for 15/50 mL conical and Vacutainer tubes	_	_
for plates	_	_
Additional product features		
OptiBowl	_	$\checkmark$
Soft-touch lid closure	$\checkmark$	$\checkmark$
Full-digit display of time and speed		$\overline{\checkmark}$
SOFT brake function	_	
SHORT spin for quick runs	$\overline{\checkmark}$	$\overline{\checkmark}$
SHORT spin programmable to desired speed	-	_
Adjustable alarm volume		_
Save user-defined programs		_
Control panel types	keypad	knob
Metal rotor bowl for easy cleaning		
Features of refrigerated models		
Temperature range	_	0°C to 40°C
Maintains constant 4°C at max. speed	_	$\checkmark$
FastTemp pre-cooling to 4°C <sup>1</sup>		<u> </u>
FastTemp pro programmable		
Standby cooling	-	√
ECO shut-off		
Condensation drain		$\overline{\checkmark}$
Dimensions		
Height	12 cm	21/25 cm
Footprint (W × D)	22.6 × 23.9 cm	21 × 30/29.8 × 46.3 cm
Weight	3.4 kg	7.7/22 kg
AT - Cartified approach tight		

AT = Certified aerosol-tight Q = QuickLock rotor lid PTFE = PTFE coated for increased chemical resistance and easy cleaning (optional for Model 5424) <sup>1</sup> According to DIN 58970 with standard 1.5/2.0 mL rotor and room temperature of 21°C






Centrifuges 5424/5424 R	Centrifuge 5427 R	Centrifuges 5430/5430 R		
The laboratory standard	High-throughput	Microcentrifuge with multipurpose capabilities		
24 × 2.0 mL	48 × 2.0 mL, 12 × 5 mL	48 × 2.0 mL, 16 × 5 mL, 6 × 15/50 mL, 12 × Vac, 2 × MTP		
21,130 × <i>g</i>	25,000 × g	30,130 × <i>g</i>		
15,000 rpm	16,220 rpm	17,500 rpm		
30s–9h 59min, infinite	10s–9h 59min, infinite	30s–99 h 59 min, infinite		
15	18	14		
16	18	15		
< 52/49	< 54	< 58/54		
4	9	12		
_				
_				
$21,130 \times g^{\text{AT,Q,PTFE}}$	25,000 × g <sup>AT,Q</sup>	$30,130 \times g^{\text{AT,Q,PTFE}}$		
_	$16,050 \times g^{AT,Q}$	16,050 × $g^{AT,Q}$		
_	$20,800 \times g^{AT,Q}$	$20,817 \times g^{\text{AT,Q,PTFE}}$		
_	18,210 × g <sup>AT,Q</sup>	$18,210 \times g^{AT,Q}$		
18,111 × g (18-place)	$19,100 \times g^{AT,Q}$ (24-place)	19,000 × $g^{AT,Q}$ (24-place)		
_	$20,600 \times g^{AT,Q}$ (12-place)	21,190 × $g^{AT,Q}$ (16-place)		
18,615 × g (4× PCR-strips)	11,710 × <i>g</i> (6× PCR-strips)	13,543 × <i>g</i> (8× PCR-strips)		
_	_	8,320 × g (18-place)		
_	_	7,814 × g (6/12-place)		
_	_	2,204 $\times$ g (max. 29 mm loading height)		
✓	$\checkmark$			
✓	√	√		
✓	√	✓ (backlit LCD display)		
✓	√	√		
✓	√	√		
✓	√	√		
$\checkmark$	$\checkmark$	$\checkmark$		
_		50 (5 program keys)		
knob or keypad	knob	knob or keypad		
$\checkmark$	$\checkmark$	$\checkmark$		
-10°C to 40°C	10%0 kz 40%0	1100 +- 4000		
	-10°C to 40°C	<u>-11°C to 40°C</u>		
$\frac{\checkmark}{2}$	<u>√</u>	<u>√</u>		
8 min	11 min	<u>15 min</u>		
-		√		
<u>√</u>	√	√		
<u>√</u>	$\checkmark$ (adjustable time setting)	$\checkmark$ (adjustable time setting)		
$\checkmark$	√	$\checkmark$		
23/26 cm	25 cm	25/29 cm		
23/20 cm 24 × 32/29 × 48 cm	31.9 × 54 cm	$\frac{23/27 \text{ cm}}{33 \times 42/38 \times 64 \text{ cm}}$		
13.4/21 kg	30 kg	29/56 kg		
13.7/21 NY		27/30 Kg		

### eppendorf

#### **Eppendorf Microcentrifuges**



#### **Eppendorf Multipurpose Centrifuges**

				0.	Euro		i Contra
	5702	5702 R	5702 RH	5804	5804 R	5810	5810 R
Model	medium capacity needs in clinical research and cell culture labs accuracy to maximize cell viability (e.g.			for medium With swing-b	speed centrifuge capacity needs. sucket rotor and blate capacity	high-throughp Highly versatile	rse for mid to ut laboratories: , high speed and e capacity
Capacity	4 × 100 mL			4 × 2	250 mL	4 × 7	50 mL
> Conical tubes	20 × 15 mL/4 × 50 mL		mL	40 × 15 m	L/16 × 50 mL	56 × 15 mL	/28 × 50 mL
> Blood collection tubes		36 × 13 mm/30 × 16	mm	56 × 13 mm/52 × 16 mm		100 × 13 mm/80 × 16 mm	
> Plates		_		10 × MTP/2 × DWP		16 × MTP/4 × DWP	
Max. speed (RCF)		3,000 × g		20,913 × g		20,913 × g	
Max. rpm		4,400		14	1,000	14,	.000
Rotor options		6			12	1	8
Refrigerated		–9 °C to 40 °C	–9 °C to 42 °C		–9 °C to 40 °C		–9 °C to 40 °C

Your local distributor: www.eppendorf.com/contact Eppendorf AG · 22331 Hamburg · Germany eppendorf@eppendorf.com · www.eppendorf.com

### www.eppendorf.com/centrifugation

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