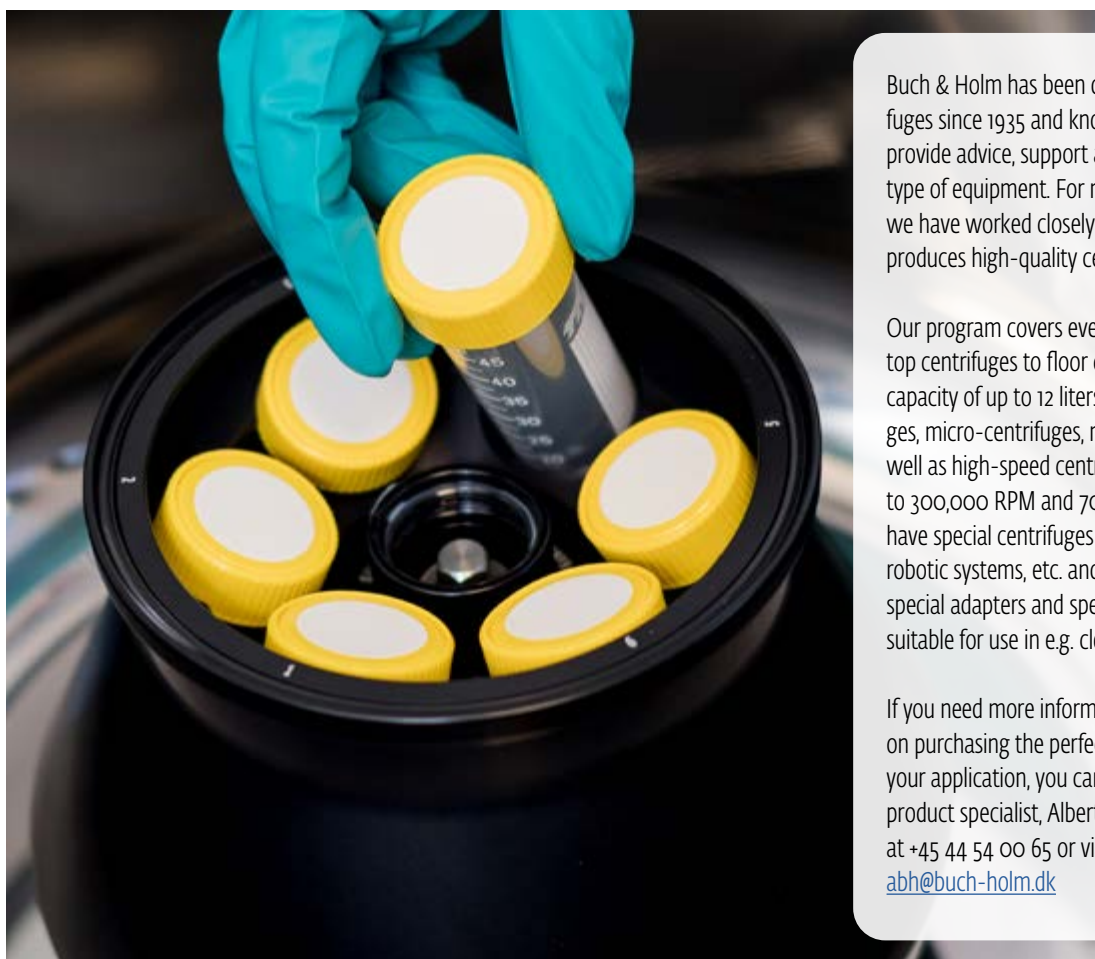


Centrifugation

Your guide to selecting the right centrifuge and accessories





Buch & Holm has been dealing with centrifuges since 1935 and knows what it takes to provide advice, support and service for this type of equipment. For more than 20 years, we have worked closely with Sigma, which produces high-quality centrifuges.

Our program covers everything from bench-top centrifuges to floor centrifuges with a capacity of up to 12 liters. Vacuum centrifuges, micro-centrifuges, mini centrifuges as well as high-speed centrifuges at speeds up to 300,000 RPM and 70,121 x g. We also have special centrifuges for e.g. filtration, robotic systems, etc. and can assist with special adapters and specially-treated rotors suitable for use in e.g. cleanroom.

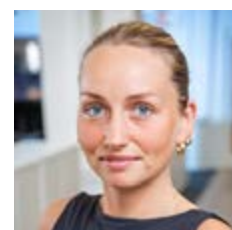
If you need more information or guidance on purchasing the perfect centrifuge for your application, you can contact our product specialist, Alberte Wille Hansen, at +45 44 54 00 65 or via email at abh@buch-holm.dk

Choosing the Right Centrifuge

Choosing the right centrifuge for your application can be a daunting task due to numerous variables. At Buch & Holm, we aim to simplify this process so users can select the right equipment based on specific needs and preferences. Our guide outlines key factors to consider:

1. **Define your sample volume:** Knowing the number of tubes to be processed per cycle is vital. This, combined with the tube volume, will help define the size of the centrifuge needed. Are you unsure which tubes to use for your experiment? Check our guide on page 18-19 to find out.
2. **Define the speed or RCF value necessary for your experiment:** Know the maximum required speed and RCF values for desired results. Remember to keep in mind that smaller molecules travel slower compared to bigger molecules.
3. **Do you need temperature control?** Consider whether you need cooling and heating for your samples, or if you simply need a standard ventilated centrifuge.
4. **Rotor type:** Fixed-angle rotors are faster and suitable for centrifuging samples at a high speed, while swing-out rotors offer readable separations.
5. **Technical features:** Additionally, you can refine your search by key features in our catalogue.

Alberte Wille Hansen
Product Manager
 Tlf.: 44 54 00 65
 E-mail: abh@buch-holm.dk



Unlocking Centrifuge Performance

Whether you are preparing delicate biological samples or chasing ultrafast separations, the right rotor—and the right understanding of your centrifuge's performance can make all the difference. Two rotor types. Two very different outcomes.



Two rotor types - Two very different outcomes

The choice between swing-out rotors and fixed-angle rotors shapes your results, efficiency, and downstream success.

Swing-out rotors

Designed with pivoting buckets that swing out horizontally during a spin, swing-out rotors are ideal for applications requiring flat, even pellet formation. Perfect for biological workflows, they make sample recovery easier and more precise—especially when working with cell cultures, blood components, or other sensitive materials.

Fixed-angle Rotors

Built for speed, fixed-angle rotors secure tubes at a consistent angle (typically 30°–40°), allowing samples to settle quickly along the tube wall. Thanks to their aerodynamic design, they can reach much higher speeds, delivering fast, efficient separations—a must-have for high-throughput labs.

Need precision or high volume? Go swingout. Need speed? Fixed-angle has your back.

RPM vs. RCF: What really matters?

When talking centrifuge performance, two terms matter: RPM (Revolutions Per Minute) and RCF (Relative Centrifugal Force). Knowing the difference is essential.

RPM tells you how fast the rotor spins. RCF (or g-force) tells you how much force is actually applied to your sample. It factors in the rotor's speed and radius, giving you a true measure of separation power.

Here is the catch: Two centrifuges spinning at the same RPM can deliver completely different force to your sample, because the rotor size affects the force. That's why RCF is the gold standard when it comes to comparing performance and reporting results.

Sigma Centrifuge Selection

Microcentrifuges

	Sigma 1-14		Sigma 1-16	
Description	Compact microcentrifuge for small volumes, with cooling option		Universal microcentrifuge with higher capacity and cooling option	
				
	Sigma 1-14		Sigma 1-16	
Max Capacity Swing-out	6 x 2 ml		36 x 2 ml	
Max Capacity Fixed-angle	24 x 2 ml		36 x 2 ml	
Max RCF Swing-out	16,099 x g		20,627 x g	
Max RCF Fixed-angle	15,596 x g		20,627 x g	
Number of Rotor Options	10		8	
Microtiter Plate Compatibility	-		-	
Temperature Adjustment Range	-10°C to + 40°C		-10°C to + 40°C	
Dimensions (H x W x D)	176 x 266 x 212 mm	236 x 273 x 515 mm	271 x 310 x 418 mm	271 x 310 x 660 mm

High-speed centrifuges

	Sigma 3-18		Sigma 3-30		Sigma 4-5	
Description	High-performance multipurpose centrifuge with optional heating		High-speed multipurpose centrifuge with advanced heating and cooling		Large capacity centrifuge for high-volume processing, optional cooling and heating	
						
	Sigma 3-18KS Sigma 3-18KHS		Sigma 3-30KS Sigma 3-30KHS		Sigma 4-5L Sigma 4-5KL	
Max Capacity Swing-out	4 x 400 ml		4 x 100 ml		4 x 750 ml	4 x 750 ml
Max Capacity Fixed-angle	6 x 94 ml		6 x 94 ml		-	4 x 94 ml
Max RCF Swing-out	16,215 x g		10,956 x g		4,643 x g	5,485 x g
Max RCF Fixed-angle	30,070 x g		70,121 x g		-	30,376 x g
Number of Rotor Options	19		19		3	12
Microtiter Plate Compatibility	8 Pcs.		6 Pcs.		16 Pcs.	16 Pcs.
Temperature Adjustment Range	-20°C to + 40°C	-20°C to + 60°C	-20°C to + 40°C	-20°C to + 60°C	-10°C to + 40°C	
Dimensions (H x W x D)	355 x 630 x 600 mm		464 x 570 x 643 mm		390 x 496 x 634 mm	390 x 602 x 634 mm

Mid-size benchtop centrifuges

Sigma 2-7

Budget friendly benchtop centrifuge



Sigma 2-7

Sigma 2-16

Versatile multipurpose centrifuge with optional cooling or heating



Sigma 2-16KL



Sigma 2-16KHL

Sigma 3-16 / 3-17

Benchtop centrifuge for larger volumes with optional cooling and heating



Sigma 3-16T



Sigma 3-17KT

4 x 100 ml

30 x 15 ml

2,500 x g

2,500 x g

5

6 Pcs.

293 X 378 X 535 mm

4 x 100 ml

4 x 85 ml

3,969 x g

21,913 x g

17

6 Pcs.

-10°C to +40°C

-10°C to +60°C

310 x 550 x 570 mm

4 x 400 ml

6 x 94 ml

3,894 x g

23,723 x g

14

8 Pcs.

-20°C to +40°C

337 x 460 x 521 mm

337 x 460 x 716 mm

Large size benchtop centrifuges

Sigma 4-16

Versatile large capacity multipurpose centrifuge with optional cooling or heating



Sigma 4-16S



Sigma 4-16KS

Sigma 4-16KHS

4 x 750 ml

6 x 250 ml

5,485 x g

21,917 x g

16

16 Pcs.

-20°C to +40°C

489 x 496 x 650 mm

4 x 750 ml

6 x 250 ml

5,485 x g

25,155 x g

16

16 Pcs.

-20°C to +60°C

489 x 670 x 650 mm

Sigma 6-16

Ultra-large capacity centrifuge for industrial use, with heating and cooling options



Sigma 6-16S



Sigma 6-16HS

Sigma 6-16KS

Sigma 6-16KHS

4 x 1000 ml

6 x 500 ml

5,485 x g

21,917 x g

18

20 Pcs.

-20°C to +40°C

-20°C to +60°C

483 x 581 x 711 mm

4 x 1000 ml

6 x 500 ml

5,485 x g

25,155 x g

18

20 Pcs.

-20°C to +60°C

485 x 790 x 711 mm

Sigma 8KS

Heavy-duty floor centrifuge for highest capacities



Sigma 8KS

12 x 1,000 ml

6 x 1,000 ml

5,544 x g

20,461 x g

7

48 Pcs.

-20°C to +40°C

980 x 810 x 910 mm



Microcentrifuges

Microcentrifuges are designed for small sample volumes, typically handling tubes ranging from 0.2 ml to 2.0 ml. They are ideal for tasks requiring high speeds and small capacities, such as DNA/RNA extraction, protein purification, and other molecular biology applications.

Sigma 1-14 microcentrifuge series

Sigma 1-14 microcentrifuge is a compact and powerful centrifuge designed for high-speed centrifugation of small samples. It offers a maximum speed of 14,800 RPM and a maximum RCF of 16,163 x g.

The centrifuge accommodates a variety of rotors and adapters, making it versatile for different sample types.

Sigma 1-14K is refrigerated and offers precise temperature control ranging from -10°C to +40°C, making it suitable for sensitive biological samples and provides reliable and consistent performance for molecular biology, biochemistry, and clinical research tasks. Sigma 1-14K also has a unique and powerful cooling system that guarantees $\leq +4^\circ\text{C}$ at maximum speed with all rotors.

[2210014](#) / Centrifuge Sigma 1-14, without rotor

[2210020](#) / Centrifuge Sigma 1-14K with cooling, without rotor

Sigma 1-14 Features

- Speed range up to 14,800 RPM
- Maximum capacity: 24 x 2 ml micro tubes
- Zero-maintenance motor with motorized lid lock
- Low noise level
- Low temperature increases in continuous operation, suitable for sensitive samples

Sigma 1-14K Features

All features of the Sigma 1-14K, plus:

- Speed range up to 15,000 RPM
- Temperature setting range: -10 °C to +40 °C
- Pre-cooling program



Fixed-angle rotor / [2212094](#)

- Max. capacity: 24 x 2 ml
- Max. speed: 14,800 RPM



Fixed-angle rotor / [2212084](#)

- Max. capacity: 24 x 2 ml
- Max. speed (1-14K): 15,000 RPM



Fixed-angle rotor / [2212096](#)

for PCR strips

- Max. capacity: 16 x 0.2 ml PCR tubes
- Max. speed (1-14 / 1-14K): 14,800 / 15,000 RPM





Sigma 1-16 microcentrifuge series

Sigma 1-16 microcentrifuge offers a maximum speed of 15,000 RPM and an RCF of 20,627 x g, delivering exceptional performance for rapid sample processing. This unit supports a wide range of rotors and adapters, accommodating various tube sizes from 0.2 - 5.0 ml. It features a compact design and user-friendly interface, ensuring ease of use and reliability in everyday laboratory tasks.

Sigma 1-16K is the refrigerated version of the Sigma 1-16, offering the same high-speed capabilities with added temperature control. It features a temperature range from -10°C to +40°C, making it suitable for temperature-sensitive samples. The Sigma 1-16K's versatility and precise temperature regulation make it an excellent choice for molecular biology, biochemistry, and clinical research.

[2210045](#) / Centrifuge Sigma 1-16, without rotor

[221002590](#) / Centrifuge Sigma 1-16, with rotor for 24x1-5-2 ml tubes

[2210046](#) / Centrifuge Sigma 1-16K with cooling, without rotor

[221003090](#) / Centrifuge Sigma 1-16K with cooling, with rotor for 24x1-5-2 ml tubes



Fixed-angle rotor / [2212136](#)

- Max. capacity: 36 x 2 ml
- Max. speed: 15,000 RPM



Fixed-angle rotor / [2212180](#)

- Max. capacity: 12 x 5 ml conical
- Max. speed: 15,000 RPM



Fixed-angle rotor / [2212118](#)

for spin column kits (minipreps)

- Max. capacity: 18 x 2 ml
- Max. speed: 15,000 RPM



Benchtop Centrifuges

Benchtop centrifuges are essential for laboratories, research facilities, veterinarians, and schools seeking rapid and efficient separation of heterogeneous mixtures. Explore our collection featuring both fixed-angle and swing-out rotors, catering to various tube capacities. Whether you need models with/without cooling or heating, we have the right centrifuge to meet your specific requirements.

Sigma 2-7 compact benchtop centrifuge

The Sigma 2-7 benchtop centrifuge delivers outstanding performance. Its blue LED indicator lets you see immediately if the device is still running, even from afar. With ten unique programs, it stands unmatched in its class.

Boasting a maximum RCF of over 2,500 x g, it is perfect for a wide range of applications—clinical diagnostics, veterinary medicine, pharmacies,

environmental analysis, industrial production, universities, and research facilities.

Its low noise level and ergonomic design make it ideal for everyday lab use. Plus, with a high capacity of up to 4 x 100 ml, it offers exceptional flexibility due to a high number of tube adapters.

[2210226](#) / Centrifuge Sigma 2-7, without rotor

[221022607](#) / Centrifuge Sigma 2-7, with rotor for 15/50 ml falcon tubes



Sigma 2-7 Features

- Speed range up to 4,000 RPM.
- Maximum capacity: 4 x 100 ml / 30 x 15 ml / 6 microtiter plates
- Accommodates up to 24 blood tubes (16 x 100 mm) per spin.
- Can hold up to ten user-modifiable programs can store standard routines for retrieval at any time.
- Automatic imbalance monitoring.
- Low temperature increases in continuous operation, suitable for sensitive samples.

Swing-out rotor / [2211071](#)

- Max. capacity: 4 x 100 ml
- Max. speed: 4,000 RPM



MTP swing-out rotor / [2211123](#)

- Max. capacity: 6 microtiter plates
- Max. speed: 4,000 RPM



Fixed-angle rotor / [2212073](#)

- Max. capacity: 30 x 15 ml
- Max. speed: 4,000 RPM





New Spincontrol T Touchscreen

The modern touchscreen interface offers intuitive navigation and a clear overview of parameters and programs.

Features such as USB data export, quality management functions, QR-based service access and integration with the Sigma Timer app support efficient and transparent laboratory workflows.

Sigma 3-16T / 3-17KT versatile high-capacity

The new, compact, high-performance centrifuges from Sigma, with RCF of up to 25,559 x g, and a maximum capacity of 4 x 400 ml, are air-cooled benchtop centrifuges. They are equipped with a new user-friendly touchscreen, 99 programs, and automatic rotor recognition. Their energy-efficient design, low noise level, and robust construction support a sustainable laboratory environment.

[22100018](#) / Centrifuge Sigma 3-16T, without rotor

[22100025](#) / Centrifuge Sigma 3-17KT, without rotor



Sigma 3-16T Features

- Speed range up to 15,800 RPM
- Maximum capacity 4 x 400 ml / 36 x 15 ml / 8 microtiter plates
- Accommodates up to 48 blood collecting tubes (16 x 100mm)
- 99 program memory slots
- User-friendly Spincontrol L controller
- Extra-large touch display
- Motorized lid lock
- Innovative LED run indicator
- Automatic digital imbalance monitoring
- Rotor life monitoring for a high degree of safety

Sigma 3-17KT Features

All features of Sigma 3-16T, plus:

- Speed range up to 16,400 rpm
- Temperature setting range: -20 °C to +40 °C
- High-performance cooling
- Pre-cooling function "Rapid Temp"
- Rotor cooling also possible at standstill

Swing-out rotor / [2211180](#)

- Max. capacity: 4 x 400 ml
- Max. speed: 4,500 RPM



Fixed-angle rotor / [22120250](#)

- Max. capacity: 6 x 50 ml
- Max. speed: 12,500 RPM



MTP - swing-out rotor / [22110360](#)

- Max. capacity: 4 x 60 ml
- Max. speed: 3,500 RPM



Sigma 3-18 all-purpose powerful benchtop centrifuge

Sigma 3-18 universal centrifuge is designed for research and routine tasks in hospitals, universities, industrial laboratories, and in the biotechnological and pharmaceutical sectors. Speed up to 18,000 RPM and capacity up to 4 x 400 ml. Thanks to its unique versatility and a wide range of rotors, the centrifuge also appeals to demanding users - with RCF values up to over 30,000 x g with an angle rotor. With short acceleration and braking time, the centrifuge offers a perfect combination of performance and productivity.



Sigma 3-18KS

- Speed range up to 18,000 RPM
- Maximum capacity: 4 x 400 ml
- User-friendly spincontrol S-controller
- Can hold up to 60 user-modifiable programs can store standard routines
- Can hold up to 50 user-modifiable programs can store standard routines for retrieval at any time
- Temperature setting range: -20 °C to +40 °C
- Pre-cooling program
- Low noise level
- Automatic rotor identification
- Automatic imbalance monitoring

Sigma 3-18KHS

All features of Sigma 3-18KS, plus:

- Temperature setting range: -20 °C to +60 °C
- Pre-cooling - and heating program



Swing-out rotor / [2211180](#)

- Max. capacity: 4 x 100 ml
- Max. speed: 4,700 RPM



Swing-out rotor / [2211241](#)

- Max. capacity: 8 microtiter plates
- Max. speed: 4,700 RPM



Fixed-angle rotor / [2212159](#)

- Max. capacity: 6 x 94 ml round-bottom
- Max. speed: 11,400 RPM



Did you know....?

...An extremely resistant cleanroom coating is available from Sigma for all aluminum buckets and rotors?

This coating provides reliable corrosion protection for accessories, especially where aggressive chemicals are used. The cleanroom coating can even withstand exposure to sodium hydroxide and hydrochloric acid. The surfaces are also food-grade (FDA certified) and can easily be cleaned without residues.



Technical service

We provide annual service agreements for benchtop, floor, and superspeed centrifuges, which include the mandatory safety inspections.

According to the Danish Working Environment Authority's order on technical aids (incl. centrifuges) no. 428 of 5th of April 2022, all centrifuges used for professional use must be inspected at least once a year by an expert. Our inspection not only ensures compliance with these legal requirements, but also extends the lifespan of the centrifuges and improves test results.

Our technicians are continuously trained at the manufacturer Sigma. Our technicians have special tools, certified measuring equipment and access to original spare parts. Thus, our service department can also assist in the preparation of IQ / OQ / PQ on certain centrifuge brands incl. Sigma centrifuges.

Do you need a safety inspection for your centrifuge? Secure your peace of mind with a service agreement from Buch & Holm.

Book your service today for Lab & Industry equipment at Buch & Holm by visiting our [website](https://www.buch-holm.dk)



Centrifuge tables

Do you need a centrifuge table?

We offer centrifuge tables from Sigma, available in various sizes. All centrifuge tables come equipped with a storage compartment (with two doors) and a convenient pull-out drawer. The tables are also equipped with lockable wheels, making it easy to move and place the centrifuge tables in the laboratory.

[2217920](#) / Centrifuge table, Sigma, 60 x 50.1 x 55 cm (W x H x D)

[2217921](#) / Centrifuge table, Sigma, 79 x 51.5 x 68.4 cm (W x H x D)

[2217922](#) / Centrifuge table, Sigma, 58.1 x 48.1 x 68.4 cm (W x H x D)

[2217923](#) / Centrifuge table, Sigma, 57 x 48.1 x 61.6 cm (W x H x D)

[2217926](#) / Centrifuge table, Sigma, 65 x 50.1 x 64.7 cm (W x H x D)

[2217927](#) / Centrifuge table, Sigma, 49 x 49.7 x 64.7 cm (W x H x D)

[22170001](#) / Centrifuge table, Sigma, 60.5 x 58.1 x 63.5 cm (W x H x D)

[22170400](#) / Centrifuge table, Sigma, 46 x 58.1 x 71.8 cm (W x H x D)



Sigma 3-30 high speed cooling centrifuge

Unleash the potential of high-speed centrifugation with our cutting-edge centrifuge! Boasting an impressive RCF of over 70,000 x g, it ensures swift and efficient separation of microscopic particles and cell fragments. Perfect for demanding applications, this centrifuge excels in cell biology, molecular biology, diagnostics, clinical biology, nanotechnology, research, and genetics. Imagine centrifuging 15 ml and 50 ml tubes at speeds exceeding 40,000 x g with a precision-engineered angled rotor. The Sigma 3-30KHS is your go-to solution for samples requiring reduced viscosity during centrifugation, pushing the boundaries of what is possible in your lab.

[2210375](#) / Centrifuge Sigma 3-30KS with cooling, without rotor

[2210379](#) / Centrifuge Sigma 3-30KHS with cooling and heating, without rotor



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Sigma 3-30KS

- Speed range up to 30,000 RPM (Max RCF: 70,121 x g)
- Maximum capacity: 6 x 94 ml
- User-friendly Spincontrol S controller
- Extra-large TFT display
- Can hold up to 60 user-modifiable programs can store standard routines.
- Temperature setting range: -20 °C to +40 °C
- Pre-cooling program
- Low noise level
- Automatic rotor identification
- Automatic imbalance monitoring
- Monitoring of rotor lifespan for high safety

Sigma 3-30KHS

All features of Sigma 3-30KS, plus:

- Temperature setting range: -20 °C to +60 °C
- Pre-cooling - and heating program

Fixed-angle rotor / [2212370](#)

- Max. capacity: 36 x 2 ml
- Max. speed: 28,000 RPM



Fixed-angle rotor / [2212155](#)

- Max. capacity: 4 x 94 ml
- Max. speed: 20,000 RPM



Fixed-angle rotor / [2212310](#)

- Max. capacity: 6 x 50 ml conical
- Max. speed: 15,500 RPM



Sigma 4-5 compact centrifuges for high capacity

The Sigma 4-5 centrifuge is designed for high capacity while still having a small footprint. The high torque allows for especially short acceleration times, enhancing laboratory processes. The centrifuge is recommended for applications in clinical diagnostics and life sciences. The centrifuge can accommodate up to 144 blood tubes (13 mm in diameter) or 100 blood collecting tubes (16 mm in diameter) from all known manufacturers. The extensive range of accessories is impressive. Along with tubes and flasks from 1.5 to 750 ml, it includes buckets to hold microtiter and deepwell plates. Ten selectable acceleration and brake curves facilitate the optimization of separation processes and further shorten run times.



[2210405](#) / Centrifuge Sigma 4-5L, without rotor

[221040510](#) / Centrifuge Sigma 4-5L, with rotor for 15/50 ml falcon tubes

[2210406](#) / Centrifuge Sigma 4-5KL, without rotor

[221040511](#) / Centrifuge Sigma 4-5KL, with rotor for 15/50 ml falcon tubes

Sigma 4-5L

- Speed range up to 4700 RPM (Max RCF: 4643 x g)
- Maximum capacity: 4 x 750 ml
- Low noise level
- Extra-large TFT display and user friendly controller
- Space-saving footprint that fits easily on laboratory benchtops

Sigma 4-5KL

All features of Sigma 4-5L, plus:

- Speed range up to 13,500 RPM (Max RCF: 20,376 x g)
- Temperature setting range: -10 °C to +40 °C
- Pre-cooling program

Swing-out rotor / [2211650](#)

- Max. capacity: 4 x 750 ml
- Max. speed: 4,700 RPM



Swing-out rotor / [2211660](#)

- Max. capacity: 4 x 750 ml
- Max. speed: 4,700 RPM



Fixed-angle rotor / [2212269](#)

- Max. capacity: 8 x 50 ml conical
- Max. speed: 11,360 RPM



Did you know....?

.... that the innovative Sigma 4-5KRL centrifuge is revolutionizing laboratory automation? Specifically designed for seamless integration into total lab automation systems, this refrigerated marvel is built for robot loading and unloading, ensuring effortless control through its integrated serial interface. Perfect for handling an immense volume of specimen tubes. It also excels with microtiter plates, custom tubes, and flasks. The Sigma 4-5KRL is setting a new standard in high-efficiency lab operations!

Sigma 4-16: A compact powerhouse with maximum versatility

The Sigma 4-16 series is a compact benchtop centrifuge that combines high performance with exceptional flexibility. With a maximum capacity of 4 x 400 ml (swing-out rotor) or 6 x 250 ml (fixed-angle rotor) and RCF values of up to 25,155 x g, the Sigma 4-16 delivers reliable results for both routine applications and demanding research tasks.

The series is available in three versions: the non-refrigerated Sigma 4-16S, the refrigerated Sigma 4-16KS, and the refrigerated/heatable Sigma 4-16KHS – making it ideal for processing temperature-sensitive samples.

[2210380](#) / Centrifuge Sigma 4-16S, without rotor

[2210385](#) / Centrifuge Sigma 4-16KS with cooling, without rotor

[221038501](#) / Centrifuge Sigma 4-16KS with cooling, incl. swingout rotor for 15/50 ml falcon tubes.

[2210389](#) / Centrifuge Sigma 4-16KHS with cooling and heating, without rotor



Sigma 4-16S

- Speed range up to 15,000 RPM
- Maximum capacity: 4 x 400 ml (swing-out) / 6 x 250 ml (fixed-angle)
- Store and quickly recall up to 60 user-defined programs
- Low noise level and compact design
- Automatic rotor identification, imbalance monitoring and motorized lid Lock

Sigma 4-16KS

All features of the Sigma 4-16P, plus:

- Temperature setting range: -20 °C to +40 °C
- Pre-cooling program

Sigma 4-16KHS

All features of the Sigma 4-16P, plus:

- Temperature setting range: -20 °C to +60 °C
- Pre-cooling program

Swing-out rotor / [2211650](#)

- Max. capacity: 4 x 750 ml
- Max. speed: 4,700 RPM



Fixed-angle rotor / [2212269](#)

- Max. capacity: 8 x 50 ml conical
- Max. speed: 13,500 RPM



Fixed-angle rotor / [2212356](#)

- Max. capacity: 6 x 250 ml
- Max. speed: 9,000 RPM



Sigma 6-16: Your lab's high-capacity all-rounder

The Sigma 6-16 centrifuge series is a versatile benchtop centrifuge line that combines strong performance, a wide range of rotor options, and precise temperature control. With capacities up to 4 x 1,000 ml (swing-out) or 6 x 500 ml (fixed-angle) and RCF values up to 25,419 x g, it is suitable for demanding laboratory and industrial applications.

[2210390](#) / Centrifuge Sigma 6-16S, without rotor

[2210395](#) / Centrifuge Sigma 6-16KS with cooling, without rotor

[2210399](#) / Centrifuge Sigma 6-16KHS with heating and cooling, without rotor

[2210393](#) / Centrifuge Sigma 6-16HS with heating, without rotor



Sigma 6-16S

- Speed range up to 13,500 RPM (Max. RCF: 25,419 x g)
- Maximum capacity: 4 x 1,000 ml (swing-out) / 6 x 500 ml (fixed-angle)
- Spincontrol S controller with extra-large TFT display
- Store and recall up to 60 user-defined programs
- Automatic rotor identification and imbalance monitoring
- Quiet, maintenance-free induction drive

Sigma 6-16KS

All features of the Sigma 6-16S, plus:

- Refrigerated version with temperature range: -20 °C to +40 °C
- Fast pre-cooling and standstill cooling
- Quiet, maintenance-free induction drive

Sigma 6-16KHS

All features of the Sigma 6-16S, plus:

- Refrigerated and heated version with temperature range: -20 °C to +60 °C
- Suitable for samples requiring reduced viscosity during centrifugation

Sigma 6-16HS

All features of the Sigma 6-16S, plus:

- Heated version with temperature range: 0 °C to +70 °C
- Optimized for crude oil moisture content testing (ASTM)



Swing-out rotor / [2211660](#)

- Max. capacity: 4 x 1,000 ml
- Max. speed: 5,100 RPM



Swing-out rotor / [2211165](#)

- Max. capacity: 4 x 100 ml
- Max. speed: 3,000 RPM



Fixed-angle rotor / [2212600](#)

- Max. capacity: 6 x 500 ml
- Max. speed: 9,600 RPM





Sustainable features and premium quality

Customers are provided with durable and service-friendly products designed for long-term use. The laboratory centrifuges are manufactured to the highest quality standards and stand out for their reliability, performance, and intuitive operation.

During the development of new products and features, continuous optimization of energy efficiency is considered just as important as improving the working environment in laboratories.

Many of the centrifuges are designed to be energy-efficient and operate at lower noise levels compared to similar products on the market. Refrigerated models include an energy-saving ECO mode and a configurable standby function. After a predefined period of inactivity, the centrifuge automatically switches to standby mode. This reduces energy consumption and contributes to a more comfortable laboratory environment by significantly lowering noise levels when cooling is not required.

Green electricity: sustainable energy for our production



100% of our electricity comes from renewable energies - generated from European hydropower, wind power and photovoltaics. Sigma therefore rely on a sustainable, environmentally friendly energy source and manufacture their products to the highest ecological standards.

Sustainable re-use of packaging material



For Sigma, sustainability does not end with production - they also rely on environmentally friendly solutions for shipping. Wherever possible, they reuse packaging materials to conserve resources and reduce waste.

Floor Centrifuges

Floor-standing centrifuges are purpose-built for high-volume performance, ensuring reliable results and efficient workflows. They provide optimal conditions for your samples while supporting both high-throughput clinical applications and demanding industrial processes.

Sigma 8KS – High-performance floor-standing centrifuge

The Sigma 8KS is a powerful, refrigerated floor-standing centrifuge built for high-capacity, high-performance separations. With a maximum RCF of 20,461 x g and capacity of up to 12 x 1,000 ml (swing-out) or 6 x 1,000 ml (fixed-angle), it is ideal for universal deployment in both industrial and research environments.

Its ergonomic loading height of just 88 cm, smooth and quiet operation, and intuitive interface make it a user-friendly solution for large-volume processing. With precise cooling from -20 °C to +40 °C, Rapid Temp function, and options for GMP and inert gas configurations, the Sigma 8KS is one of the most versatile large-volume centrifuges in its class.

[2210631](#) Centrifuge Sigma 8KS with cooling, without rotor



Key features

- Refrigerated floor-standing centrifuge
- Maximum RCF: 20,461 x g
- Maximum capacity: 12 x 1,000 ml (swing-out) / 6 x 1,000 ml (fixed-angle)
- Loading height: 88 cm – ergonomic and space-saving
- Up to 60 programs with password protection
- 30 acceleration and 30 braking curves
- Automatic rotor identification and rotor life monitoring
- Motorized lid lock and automatic imbalance detection
- Low noise level, smooth running, maintenance-free induction motor
- Temperature control: -20 °C to +40 °C, with standstill cooling and Rapid Temp function
- Water-cooling option for maximum energy efficiency and minimum noise
- GMP and inert gas versions available
- Stainless steel chamber, easy to clean



Swing-out rotor / [2211806](#) with dual bucket [2213855](#)

- Max. capacity: 12 x 1,000 ml
- Max. speed: 3,300 RPM



Fixed-angle rotor / [2212510](#)

- Max. capacity: 6 x 1,000 ml
- Max. speed: 7,000 RPM



Swing-out rotor / [2211805](#) with round bucket [2213850](#)

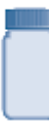
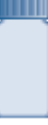
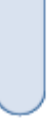
- Max. capacity: 6 x 1,500 ml
- Max. speed: 5,000 RPM



Sigma Tubes

									
Rated capacity (filling volume ml)	0.2	0.2	0.4	0.5	0.5	1.5	2	5	5
Diameter x length (mm)	5.8 x 20	-	5.8 x 47	7.9 x 28	10.8 x 47.6	10.7 x 42	10.7 x 42	12 x 75	17 x 60
Tube material	PP	-	PE	PP	PP	PP	PP	PS	PPCO
Item no.	2215042	PCR strips	2215014	2215005	Paediatrics	2215008	2215040	2215060	-

									
Rated capacity (filling volume ml)	25	30 (26)	30 (26)	30 (28)	30	50 (38)	50 (43)	50	50
Diameter x length (mm)	24 x 100	25.3 x 98	25.3 x 98	25.3 x 98	24 x 105	28.8 x 107	28.8 x 107	28.5 x 101.5	29 x 117
Tube material	Glass	PF	PPCO	PC	Glass	PPCO	PF	Stainless steel	PP
Item no.	2215026	2215029	2215032	2215030	2215033	2215052	2215051	2213055	2215151

									
Rated capacity (filling volume ml)	100	150	150	175	200 (168)	200 (170)	200	200	230 (220)
Diameter x length (mm)	45 x 100	51 x 99	56 x 113	62 x 139.2	56 x 112	56 x 112	56 x 135	61 x 130	56 x 134
Tube material	PC	PP	Glass	PP	PPCO	Glass	Glass	PP	Glass
Item no.	2215103	2215125	2215206	2215175	2215202	2215201	2215254	2215174	2215250

			
Rated capacity (filling volume ml)	1,000	1,300	1,500
Diameter x length (mm)	100 x 185	115 x 165	115 x 180
Tube material	PPCO	Stainless Steel	PP
Item no.	2215924	2213840	2215931

Autoclave resistant
Elasticity
Transparency
Microwave resistant
Chemical resistance

Weak acids
Strong acids
Alcohols and alkalis
Salts

Note:

Polycarbonate
(PC)

Yes
Not elastic
Transparent
Moderate

Yes
No
No
Limited
Frequent auto-claving leads to loss of strenght

											
6 (5)	7	10	10	10	10	10	14	14	15 (13)	15	25
12 X 100	12 X 100	16.1 X 81.1	16.1 X 81.1	16.1 X 81.1	16 X 100	16 X 100	17 X 100	17 X 100	17 X 110	16.5 X 120	24 X 100
Glass	Glass	PF	PC	PPCO	Glass	Glass	PS	PP	Glass	PP	Glass
2215007	2215027	2215000	2215010	2215039	2215015	2215024	2215020	2215023	2215022	2215115	2215025
											
50	50	50	50	50	85 (73)	85 (76)	94 (85)	94	100 (75)	100	100
29 X 117	34 X 100	34 X 100	34 X 100	35 X 100	38 X 112	38 X 112	38 X 103	38 X 110	44 X 100	44 X 100	44 X 100
PP	Glass	Glass	PC	Glass	PF	PPCO	Stainless steel	PC	Glass	Glass	Glass
2215151	2215045	2215050	2215049	2215056	2215080	2215076	2213085	2215094	2215078	2215106	2215100
											
250 (232)	250	250	400	500	500 (435)	500	500	750 (eff. 680)	750	1,000 (885)	1,000
61.4 X 122	61.4 X 122	61.4 X 125	85 X 118	69 X 165	69 X 165	69.5 X 152	85 X 135	85 X 173	100 X 127	97 X 175	100 X 167
PPCO	PF	Stainless steel	PPCO	PF	PPCO	Stainless steel	PPCO	PPCO	PPCO	PPCO	Stainless Steel
2215249	2215247	2213255	2215401	2215507	2215508	2213507	2215501	2215751	2215917	2215921	2213510



Polyvinyl (PF)	Polystyrene (PS)	Polyethylene (PE)	Polypropylene (PP)	PP copolymer (PPCO)	Glass (PC)	High-speed glass (HS glass)	Stainless steel
Yes	No	No	Yes	Yes	Yes	Yes	Yes
Not elastic	Not elastic	Good	Not elastic	Moderate	Not elastic	Not elastic	Not elastic
Translucent	Transperent	Translucent	Translucent	Translucent	Transperent	Transperent	Opaque
Yes	No	Limited	Moderate	Moderate	Yes	Yes	No
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Limited
Yes	Limited	Yes	Yes	Yes	Yes	Yes	Limited
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Yes	Limited	Yes	Yes	Yes	Yes	Yes	Limited
Tubes should be completely filled and closed for use at max. RCF					Max. RCF for all glass tubes approx. 4,000 x g		High-speed glass for maximum RCF of 13,100 x g

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