



Sigma 3-30KS Sigma 3-30KHS



High-speed centrifuge

- refrigerated
- refrigerated/
heatable



 SIGMA



Speed 4800
4800 min⁻¹

Temperature 20
20 °C

RCF 7599
7599 g

Runtime 0:15:00
1:34 m:s

Rotor 11805 & 13850

7 12

89%

Select the operating parameter

Exceptional in every respect



Sigma is a leading international manufacturer of laboratory centrifuges for diverse sectors, including biotechnology, pharmaceutical, medical, and environment analysis. Laboratories, institutes and companies everywhere in the world have been relying on premium Sigma quality – Made in Germany – for more than 40 years. The company stands for innovative products and the development of durable, energy-efficient and especially user-friendly devices.

The Sigma 3-30KS/Sigma 3-30KHS is a top-quality product reflecting Sigma's high aspirations and many decades of experience. Today it is a top seller and proven classic amongst tried and tested bench top centrifuges. It is the only cooled bench centrifuge in its class to top the 70,000 xg RCF mark in the speed range up to 30,000 rpm.

Customers are enthusiastic about this unique high-speed machine, which is impressively close to ultracentrifuge performance. The Sigma 3-30KS/Sigma 3-30KHS sets the standard for extremely fast and effective separation with maximum RCF. A class apart. The Sigma 3-30KS/Sigma 3-30KHS is ideal for research and is often used in biotechnology and life sciences applications, such as DNA sedimentation or cell fragment separation. It routinely carries out demanding tasks in nanotechnology. Compared to other separation methods, such as filtration, this premium model specifically designed for fixed-angle rotors excels in mass spectrometry applications (LC, MS, HPLC and GC) with its ease of use, speed and unbeatable low cost. The Sigma 3-30KS/Sigma 3-30KHS takes many standard centrifugation operations in stride and can quickly master complicated separation tasks.

Top ranking

Compact, convenient, outstanding functions

The Sigma 3-30KS/Sigma 3-30KHS is truly unique. It is unparalleled as a high-end bench top unit with a speed of 30,000 rpm. Compared to standard centrifuges, it scores top marks for compactness and narrow width, saving valuable space in the lab. The patented one-button control and automatic lid lock make centrifuge operation very easy.

High-quality materials and finishing ensure pleasantly quiet running with low vibration. The high-speed and RCF are only noticeable on the display. With all setpoint and actual values displayed on the home screen, user-definable program names and a choice of six languages, the high-end Spincontrol S controller offers a wealth of features and

attractive upgrade options to meet future requirements. Ideal for demanding research work. The proven drive concept of the Sigma 3-30KS/Sigma 3-30KHS testifies to unsurpassed development expertise. The premium centrifuge is exceptionally rugged and durable. Outliving the warranty term sets it apart. For years, users in diverse sectors have treasured this convenient high speed centrifuge and its excellent value for money.



Sigma 3-30KS

- High-speed bench top centrifuge for fixed-angle rotors
- Speed range up to 30,000 rpm
- Swing-out rotor 5,000 rpm
- Maximum RCF 70,121 x g
- Spincontrol S controller with many extra functions
- 60 programs
- Compact, space-saving device (width 57 cm)
- Easy automatic lid opening, two gas springs
- Low noise level: 63 dB(A) at maximum speed
- Automatic rotor identification
- Corrosion-resistant, easily cleaned stainless steel bowl
- High-performance cooling unit; standstill cooling
- Manufactured in compliance with EN 61010-2-020

Sigma 3-30KHS

Heatable version of the Sigma 3-30KS with the same rotor options and convenient operation.

Additional features:

- Maximum rotor temperature +40°C to +60°C, depending on rotor and speed
- All other specifications as for Sigma 3-30KS



Rotors and accessories

Many potential combinations for high flexibility

As a premium centrifuge for a wide variety of applications in research and industry, the Sigma 3-30KS/Sigma 3-30KHS is specifically designed for fixed-angle rotors. This concept allows the unit to withstand high stresses at operating speeds up to 30,000 rpm and RCF up to 70,000 x g. With regard to rotors and accessories, the Sigma 3-30KS/Sigma 3-30KHS accommodates all vials from 0.2 ml to 85 ml in fixed-angle rotors, with a maximum capacity of 510 ml.

In fact, the Sigma fixed-angle rotors 6 x 30 ml at 60,628 x g, 36 x 1.5 ml at 70,121 x g, 10 x 10 ml at 57,111 x g and 6 x 50 ml at 41,415 x g are the best sellers in their class. The rotor options are rounded out by a modern swing-out rotor (11171) with a rated speed of 5,000 rpm and a maximum capacity of 4 x 100 ml.

The Sigma 3-30KS/Sigma 3-30KHS offers outstanding separation performance and many functions designed for biotechnology applications (microbiology, biochemistry, genetics, etc.). This premium centrifuge also has an excellent reputation in the life sciences with regard to performance, safety and flexibility. In nanoparticle analysis and manufacturing, the Sigma 3-30KS/Sigma 3-30KHS occupies a unique position – with RCF exceeding 70,000 x g, it is a highly versatile solution for many applications.

All compatible rotors can be autoclaved for 30 minutes at 121 °C. The rotors listed below are additionally equipped with a hermetic aluminium cover.



Fixed-angle rotor (Part No. 12115)

- for 12 strips
each 8 x 0.2 ml (PCR)
- Max. 16,400 rpm (29,468 x g)
- 45° angle

**Fixed-angle rotor** (Part No. 12110)

- 12 x 1.5–2 ml (reaction vial)
- Max. 30,000 rpm (65,403 x g)
- 45° angle
- 1.5 ml vial (use only with bottom adapter no. 13003)
- Adapter family for 0.2/0.4/0.5 ml reaction vials

**Fixed-angle rotor** (Part No. 12154)

- 24 x 1.5–2 ml (reaction vial)
- Max. 26,000 rpm (61,973 x g)
- 45° angle
- 1.5 ml vial (use only with bottom adapter no. 13003)

**Fixed-angle rotor** (Part No. 12370)

- 36 x 1.5–2 ml (reaction vial)
- Max. 28,000 rpm (70,121 x g)
- 30°/50° angle; same RFC in both rows
- 1.5 ml vial (use only with bottom adapter no. 13003)

**Fixed-angle rotor** (Part No. 12349)

- 2-row, 48 x 1.5–2 ml (reaction vial)
- Max. 15,000 rpm (25,155 x g)
- 25°/53° angle; same RFC in both rows
- Adapter family for 0.2/0.4/0.5 ml reaction vials

**Fixed-angle rotor** (Part No. 12182)

- 12 x 5 ml (Eppendorf vial)
- Max. 20,000 rpm (37,565 x g)
- 40° angle

**Fixed-angle rotor** (Part No. 12111)

- 10 x 10 ml (round-bottom tube)
- Max. 26,000 rpm (57,438 x g)
- 35° angle

**Fixed-angle rotor** (Part No. 12157)

- 20 x 10 ml (round-bottom tube)
- Max. 16,000 rpm (28,048 x g)
- 25° angle

**Fixed-angle rotor** (Part No. 12171)

- 12 x 15 ml (Falcon)
- Max. 13,500 rpm (20,172 x g)
- 25° angle

**Fixed-angle rotor** (Part No. 12158)

- 6 x 30 ml (round-bottom tube)
- Max. 26,200 rpm (60,628 x g)
- 29° angle



Fixed-angle rotor (Part No. 19776)

- 6 x 50 ml (Falcon tube)
- Max. 14,000 rpm (20,379 x g)
- 25° angle
- Adapter for 15 ml Falcon/50 ml round-bottom tube

**Fixed-angle rotor** (Part No. 12155)

- 4 x 85 ml (round-bottom tube)
- Max. 20,000 rpm (40,695 x g)
- 26° angle
- Adapter for 15/30 ml glass, 15/50 ml Falcon vial, 30/50 ml round-bottom tube

**Fixed-angle rotor** (Part No. 12150)

- 6 x 50 ml (round-bottom tube)
- Max. 21,000 rpm (41,415 x g)
- 25° angle
- Adapter for 15-/30 ml glass

**Fixed-angle rotor** (Part No. 12159)

- 6 x 85 ml (round-bottom tube)
- Max. 15,500 rpm (26,323 x g)
- 25° angle
- Adapter for 15/30 ml glass, 15/50 ml Falcon, 30/50 ml round-bottom tube

**Fixed-angle rotor** (Part No. 12156)

- 8 x 50 ml (round-bottom tube)
- Max. 16,500 rpm (29,220 x g)
- 25° angle
- Adapter for 15-/30 ml glass

**Swing-out rotor** (Part No. 11134)

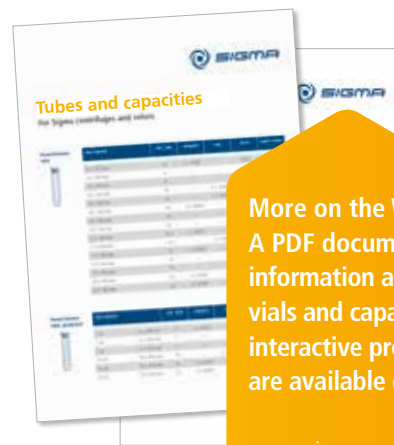
- 4 x 10 ml (round-bottom tube)
- Max. 10,000 rpm (10,956 x g)
- 90° angle
- Very high speed

**Swing-out rotor** (Part No. 11171)

- Max. 5,000 rpm (3,969 x g)
- 4 positions
- For round bucket 13299 and hex carrier 13296
- Rotor bolts do not need lubrication
- Carrier 13296 for 5–15 ml round-bottom vials and medical tubes up to 110 mm long
- Bucket 13299 for adapter family 1.5–100 ml and Falcon vial, with cover for closing

**MTP swing-out rotor** (Part No. 11222)

- 2-position rotor for all micro titer plates with the same surface area
- Max. 3,000 rpm (1,218 x g)
- Max. plate height 56 mm, shallower plates can be stacked



More on the Web!
A PDF document with information about compatible vials and capacities and a link to the interactive product configuration tool are available on the product website:

www.sigma-zentrifugen.de

› Sigma 3-30KS

› Sigma 3-30KHS

Setting standards in control technology

Unique features, diverse application areas

The Spincontrol S sets standards for laboratory centrifuge control technology. This high-performance controller offers versatile and unique options for a wide range of application areas. The patented controller only needs three buttons: Start, Stop and Open Lid. All parameters – rotor speed, RCF, temperature, etc. – can be set and adjusted with the unique central turn/push button. Along with manual configuration, previously entered programs can be recalled using shortcuts, with all parameters shown in a separate window. The program status display with progress bars, easily readable at a distance, is also very practical.

The clearly organised display constantly shows all setpoint and actual values. Users are enthusiastic about the countless features, including a timer from the setpoint speed point, 60 program slots, user-selectable program names, password protection for programs, visual standstill indication, rotor cycle counter, adjustable start delay, and even more. This highly flexible system helps you meet the requirements of today's and tomorrow's laboratory tasks.

Sigma's premium controller supports internal quality management functions as well as external communication with a laboratory information management system (LIMS). In this way, Spincontrol S facilitates traceability and professional reporting.



More on the Web!
View our video to learn more about Spincontrol S. Simply scan the QR code or visit our centrifuge products website:

www.sigma-zentrifugen.de

› Sigma 3-30KS

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Display	TFT
Message window	+
Constant setpoint and actual value display	+
Languages	DE, GB, FRA, ES, PRT, SWE
Timer (s; h:min)	10 – 99:59
Timer starts after setpoint speed reached; switchable	+, +
Time increment [s]	60; 1
Intermittent operation	+
Continuous operation	+
Speed increment [rpm]	10; 1
RCF increment [x g]	10; 1
Temperature increment [°C]	1
Standstill cooling; switchable	+, +
Standstill heating; switchable	+, +
Quick cooling program (RapidTemp)	+
Start lockout with excessive actual temperature deviation; adjustable tolerance	+
Programs	60
User-definable program name	+
Program list, preview of all parameters	+, +
Linear acceleration curves	10
Quadratic acceleration curves	10
User-definable acceleration curves	10
Linear braking curves	10
Quadratic braking curves	10
User-definable braking curves	10
Free runout	+
Automatic lid opening, switchable	+, +
Audible signal, switchable	+, +
Visual standstill indication	+
Rotor cycle count monitoring	+
Rotor end-of-life warning	+
Automatic lid unlocking at end of run, switchable	+, +
Configurable for liquids > 1.2 g/cm ³	+
Start delay	+
Lockable controller	+
Microprocessor control	+

* Only for 3-30KHS

Premium quality

Made in Germany

The Sigma 3-30KS/Sigma 3-30KHS centrifuge meets the highest technical requirements and laboratory standards. Developed and produced at our Osterode site in Germany, it is a high-quality, high-performance, durable and energy-efficient product made in Germany. It is made from high-quality materials with high-quality workmanship. The Sigma 3-30KS/Sigma 3-30KHS complies with the latest standards for safety, emissions and environmental protection.

As a vendor with a large international customer base, we maintain a stock of original spare parts and wear parts for ten years or more. Furthermore, with Sigma you benefit from worldwide service, including commissioning, maintenance and repair.

Specifications

	Sigma 3-30KS	Sigma 3-30KHS
Power consumption [W]	1,800	1,800
Maximum capacity [ml]	6 x 85	6 x 85
Maximum speed [rpm]	30,000	30,000
Minimum speed [rpm]	100	100
RFI suppression	EN 61326	EN 61326
Height x width x depth [mm]	464 x 570 x 643	464 x 570 x 643
Height with open lid [mm]	890	890
Weight without rotor [kg]	100	100
Maximum kinetic energy [Nm]	43,753	43,753
Noise level at maximum speed (approximate)		
▪ Rotor 11171 at 5,000 rpm [dB(A)]	59	59
▪ Rotor 12158 at 26,200 rpm [dB(A)]	63	63
Maximum acceleration		
▪ Rotor 12110 [sec]	37	37
▪ Rotor 12158 [sec]	54	54
Maximum breaking time		
▪ Rotor 12110 [sec]	57	57
▪ Rotor 12158 [sec]	57	57
Temperature adjustment range [°C]	-20–+40	-20–+60
Minimum rotor temperature*		
▪ Rotor 11171, 5,000 rpm [°C]	< 0	< 0

Sigma 3-30KS centrifuge

220–240 V, 50 Hz (Part No. 10375)
 220–240 V, 60 Hz (Part No. 10376)
 208 V, 60 Hz (Part No. 10377)
 200 V; 50/60 Hz (Part No. 10378)

Sigma 3-30KHS centrifuge

230 V, 50 Hz (Part No. 10379)

Device qualification

Sigma Laborzentrifugen GmbH offers various forms of device qualification. For more information, see Products > Qualification on our website: www.sigma-zentrifugen.de

* At +23°C room temperature.



WEEE-Reg.-Nr.
DE 76714077







Sigma Laborzentrifugen GmbH

An der Unteren Söse 50

37520 Osterode • Germany

Tel. +49 (0) 55 22 / 50 07-0

Fax +49 (0) 55 22 / 50 07-12

info@sigma-zentrifugen.de

www.sigma-zentrifugen.de