

turns more than heads



# Sigma 3-16T Sigma 3-17KT



Benchtop centrifuge

- Unrefrigerated
- Refrigerated

[www.sigma-zentrifugen.de](http://www.sigma-zentrifugen.de)



Sigma 3-17RT

SIGMA

Sigma 3-16T

SIGMA

SIGMA

# All-rounder for a multitude of applications



**Sigma is a leading international manufacturer of laboratory centrifuges for diverse sectors, including biotechnology, pharmaceutical, medical and environment analysis. Laboratories, institutions and companies everywhere in the world have been relying on premium Sigma quality – Made in Germany – for more than 50 years. The company stands for innovative products and development of durable, energy-efficient and especially user-friendly devices.**

The compact Sigma 3-16T benchtop centrifuge and the 3-17KT refrigerated version boast the features of classic all-rounders. Users and buyers alike value these practical models thanks to their outstanding capacities and wide range of applications. In addition to their high performance and reliability, these laboratory centrifuges impress with unmatched versatility. As well-balanced universal centrifuges with comprehensive rotor and accessory options, they are suitable for a wide variety of tasks.

# Scoring with product highlights

## Reliable, versatile and safe

The unrefrigerated Sigma 3-16T and the refrigerated Sigma 3-17KT stand out with impressive features. Not only are they easy and quiet to operate, but these centrifuges also combine an impressively space-saving design with an extraordinary capacity of up to 4 x 400 ml.

A wide range of fixed-angle and swing-out rotors and an extensive selection of accessories are available. This ensures compatibility with a large number of specimen tubes, providing excellent versatility and allowing them to be used for a very wide variety of tasks.

A highlight of the Sigma 3-16T and Sigma 3-17KT is their intuitive touchscreen-based Spincontrol T control unit with its many functions. In addition to its basic parameter selection functions, the Sigma Spincontrol T is attractive due to its quality management function, the option to export run data via USB stick, the ability to retrieve service-relevant data via QR code and the option of using the "Sigma Timer" app to display the remaining run time.

The Sigma 3-16T and Sigma 3-17KT also have plenty to offer when it comes to safety. Both monitor the service life of rotors and buckets by counting cycles and notify the user when the maximum permissible number of rotor and/or bucket runs has been reached. Automatic rotor

identification ensures that rotors can only be operated within their permissible speed range.

The Sigma 3-17KT refrigerated version has a fast cooling system with precision temperature setting from -20 °C to +40 °C.

The "Rapid Temp" quick-cooling function, which can be selected directly using a button, allows users to precool the centrifuge chamber and accessories to a defined temperature. This guarantees that specimens are protected from getting too warm.

Both models feature an ECO mode to help save energy and costs. After a customisable period of time, the centrifuge automatically switches to standby mode when not in use. The display is reduced to the lowest brightness level and, in the refrigerated model, the compressor of the cooling system is also switched off. Along with being energy efficient, this improves the working atmosphere in the lab due to the significant reduction in the noise level when the cooling system is switched off.

Both benchtop centrifuges are also available in IVD versions.

### Sigma 3-16T **IVD**

- Universal benchtop centrifuge
- Speed range up to 15,800 rpm
- Maximum capacity: 4 x 400 ml
- User-friendly Spincontrol T controller
- Extra-large touch display
- USB-C port
- Storage and retrieval of run data
- 99 program memory slots
- Compact, space-saving device
- Low noise level
- Automatic rotor detection
- Zero-maintenance induction motor
- Motorized lid lock
- Innovative LED run indicator
- Automatic digital imbalance monitoring
- Rotor life monitoring for a high degree of safety
- Easily cleaned stainless steel chamber
- Window in lid for external speed monitoring
- Produced in compliance with the latest national and international standards (e.g. EN 61010-2-020)

### Sigma 3-17KT **IVD**

All features of the 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





# Rotors and accessories

## Large selection and a multitude of applications


A wide range of fixed-angle and swing-out rotors is available for the Sigma 3-16T and the Sigma 3-17KT, making them suitable for a wide variety of applications. In addition, Sigma offers an extensive range of adapters for virtually all vessel types. For work with samples that must not be released into the environment, all fixed-angle rotors are biologically sealed. The product portfolio includes caps for the 4 x 400 ml swing-out rotors and a microtitre plate rotor, which can also be used to seal them biologically if required.

The new cover screw allows fixed-angle rotors to be opened and closed quickly and easily.

One particular strength is that customised, customer-specific accessories can be designed and produced on request. The rotors and accessories are made of certified high-performance materials to withstand the most severe stresses.

### Swing-out rotors starting on page 9

#### SB-4x400 (Item no. 11180)

- Max. capacity: 4 x 400 ml
- Max. speed (3-16T / 3-17KT): 4,500 rpm
- Max. RCF (3-16T / 3-17KT): 3,894 x g
- Biosafe with cap 17190 
- Angle: 90°

► S. 9




#### SP-2x MTP-60 (Item no. 110360)

- Max. capacity: 8 microtiter plates
- Max. speed (3-16T / 3-17KT): 3,500 / 4,100 rpm
- Max. RCF (3-16T / 3-17KT): 1,739 / 2,387 x g
- Angle: 90°

► S. 13



#### SPC-2x MTP-66C55 (Item no. 11241)

- Max. capacity: 8 microtiter plates
- Max. speed (3-16T / 3-17KT): 4,500 rpm
- Max. RCF (3-16T / 3-17KT): 3,011 x g
- Biosafe with cap 17108 
- Angle: 90°


► S. 13



## Fixed-angle rotors starting on page 14

► S. 14


### FA-24x2 (Item no. 120154)

- Max. capacity: 24 x 2 ml
- Max. speed (3-16T / 3-17KT): 15,800 / 16,400 rpm
- Max. RCF (3-16T / 3-17KT): 23,723 / 25,559 x g
- Biosafe with aluminium lid 170154 
- Angle: 45°



► S. 14


### FA-24x2 Spin Columns (Item no. 120324)

- Max. capacity: 24 x 2 ml (with filter)
- Max. speed (3-16T / 3-17KT): 12,200 / 13,600 rpm
- Max. RCF (3-16T / 3-17KT): 16,141 / 20,058 x g
- Biosafe with aluminium lid 170324 
- Angle: 45°



► S. 15


### FA-30x2 (Item no. 120331)

- Max. capacity: 30 x 2 ml
- Max. speed (3-16T / 3-17KT): 13,800 / 14,700 rpm
- Max. RCF (3-16T / 3-17KT): 22,143 / 25,125 x g
- Biosafe with aluminium lid 170331 
- Angle: 45°



► S. 15


### FA-48x2 (Item no. 120349)

- Max. capacity: 48 x 2 ml
- Max. speed (3-16T / 3-17KT): 14,100 / 15,000 rpm
- Max. RCF (3-16T / 3-17KT): 22,227 / 25,155 x g
- Biosafe with aluminium lid 170349 
- Angle (outer / inner row): 53° / 25°



► S. 16


### FA-20x5-V (Item no. 120322)

- Max. capacity: 20 x 5 ml conical
- Max. speed (3-16T / 3-17KT): 13,500 rpm
- Max. RCF (3-16T / 3-17KT): 21,191 x g
- Biosafe with aluminium lid 170322 
- Angle: 40°



► S. 16


### FA-10x10-U (Item no. 120111)

- Max. capacity: 10 x 10 ml round-bottom
- Max. speed (3-16T / 3-17KT): 14,900 / 16,000 rpm
- Max. RCF (3-16T / 3-17KT): 21,842 / 25,186 x g
- Biosafe with aluminium lid 170111 
- Angle: 35°



► S. 17


### FA-12x15-V (Item no. 120215)

- Max. capacity: 12 x 15 ml conical
- Max. speed (3-16T / 3-17KT): 12,100 rpm
- Max. RCF (3-16T / 3-17KT): 16,205 x g
- Biosafe with aluminium lid 170215 
- Angle: 25°



► S. 18


### FA-8x30-U (Item no. 120158)

- Max. capacity: 8 x 30 ml round-bottom
- Max. speed (3-16T / 3-17KT): 14,900 / 15,700 rpm
- Max. RCF (3-16T / 3-17KT): 22,835 / 25,353 x g
- Biosafe with aluminium lid 170158 
- Angle: 33°



► S. 18


### FA-6x50-V (Item no. 120250)

- Max. capacity: 6 x 50 ml conical
- Max. speed (3-16T / 3-17KT): 12,500 rpm
- Max. RCF (3-16T / 3-17KT): 16,421 x g
- Biosafe with aluminium lid 170250 
- Angle: 25°



► S. 19


### FA-8x50-U (Item no. 120150)

- Max. capacity: 8 x 50 ml round-bottom
- Max. speed (3-16T / 3-17KT): 11,900 rpm
- Max. RCF (3-16T / 3-17KT): 16,149 x g
- Biosafe with aluminium lid 170150 
- Angle: 29°



► S. 20

### FA-6x94-U (Item no. 120395)

- Max. capacity: 6 x 94 ml round-bottom
- Max. speed (3-16T / 3-17KT): 12,000 rpm
- Max. RCF (3-16T / 3-17KT): 15,777 x g
- Biosafe with aluminium lid 170395 
- Angle: 25°
























## Rotor SB-4x400














Item no. 11180

### Round bucket RB400 (Item no. 13190)

- Max. capacity: 4 x 400 ml
- Max. speed (3-16T / 3-17KT): 4,500 rpm
- Max. RCF (3-16T / 3-17KT): 3,894 x g
- Max. tube length, mid-bucket, without / with cap: 142 / 125 mm
- Biosafe with cap 17190 
- Tmin at maximum speed: 4 °C
- Angle: 90°



Tube										
Rated capacity (filling volume) [ml]	0.2	0.4	0.5	0.5	1.5	2	5	5	6 (5)	7
Diameter x length [mm]	5.8 x 20	5.8 x 47	10.8 x 46.5	7.9 x 28	10.7 x 42	10.7 x 42	12 x 75	17 x 60	12 x 100	12 x 100
Tube material	PP	PE	PP	PP	PP	PP	PS	PPCO	Glass	Glass
Item no.	15042	15014	Paediatrics	15005	15008	15040	15060	–	15007	15027
<b>Adapter</b> for RB400										
Bore diameter x length [mm]	6.3 x 18.5	6 x 45	11 x 32	8.1 x 29	11.1 x 38.5	12.8 x 57	17 x 52	12.8 x 77.5		
Tubes per adapter / rotor	20 / 80	20 / 80	16 / 64	24 / 96	20 / 80	25 / 100	10 / 40	16 / 64		
Centrifuging radius [mm]	166	168	164	168	171	169	169	170		
Item no.	17353 + 13021	17353 + 13000	17361	17350	17353	17352	17210	17354		


Tube										
Rated capacity (filling volume) [ml]	10	10	10	10	10	14	14	15 (13)	15	
Diameter x length [mm]	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	
Tube material	PF	PC	PPCO	Glass	Glass	PS	PP	Glass	PP	
Item no.	15000	15010	15039	15015	15024	15020	15023	15022	15115	
<b>Adapter</b> for RB400										
Bore diameter x length [mm]	16.5 x 58					17.5 x 58		17 x 78.5	17 x 78.5	
Tubes per adapter / rotor	12 / 48					12 / 48		5 / 20	9 / 36	
Centrifuging radius [mm]	170					170		171	171	
Item no.	17355					17358		17345	17359*	

\* Only possible without cap 17190

## Rotor SB-4x400










Item no. 11180

### Round bucket RB400 (Item no. 13190)

- Max. capacity: 4 x 400 ml
- Max. speed: 4,500 rpm
- Max. RCF (3-16T / 3-17KT): 3,894 x g
- Max. tube length, mid-bucket, without / with cap: 142 / 125 mm
- Biosafe with cap 17190 
- Tmin at maximum speed: 4 °C
- Angle: 90°








### Tube










										
Rated capacity (filling volume) [ml]	25	25	25	30 (26)	30 (26)	30 (28)	30	30	50 (38)	50 (43)
Diameter x length [mm]	25 x 90	24 x 100	24 x 100	25.3 x 98	25.3 x 98	25.3 x 98	24 x 105	25 x 107	28.8 x 107	28.5 x 107
Tube material	PP	Glass	Glass	PF	PPCO	PC	Glass	PP	PPCO	PF
Item no.	–	15025	15026	15029	15032	15030	15033	–	15052	15051

### Adapter

for RB400








					
Bore diameter x length [mm]	25.5 x 56	25.5 x 77.5		25.5 x 56	29.5 x 77.5
Tubes per adapter / rotor	5 / 20	5 / 20		5 / 20	4 / 16
Centrifuging radius [mm]	168	170		168	170
Item no.	17362	17370		17362	17376

### Tube

									
Rated capacity (filling volume) [ml]	50	50	50	50	50	50	50	85 (73)	85 (76)
Diameter x length [mm]	28.5 x 101.5	34 x 100	34 x 100	34 x 100	35 x 100	29 x 117	29 x 117	38 x 112	38 x 112
Tube material	Stainless steel	Glass	PC	Glass	Glass	PPCO	PP	PF	PPCO
Item no.	13055	15045	15049	15050	15056	–	15151	15080	15076

### Adapter

for RB400


							
Bore diameter x length [mm]	29.5 x 77.5	35.5 x 77.5		29.5 x 77	29.5 x 78.5	29.5 x 78.5	38.5 x 77
Tubes per adapter / rotor	4 / 16	3 / 12		3 / 12	3 / 12	4 / 16	1 / 4
Centrifuging radius [mm]	170	170		169	171	171	169
Item no.	17376	17375		17344	17346	17377*	17385

\* Only possible without cap 17190











## Rotor SB-4x400

Item no. 11180

### Round bucket RB400 (Item no. 13190)

- Max. capacity: 4 x 400 ml
- Max. speed: 4,500 rpm
- Max. RCF (3-16T / 3-17KT): 3,894 x g
- Max. tube length, mid-bucket, without / with cap: 142 / 125 mm
- Biosafe with cap 17190 
- Tmin at maximum speed: 4 °C
- Angle: 90°









Tube										
Rated capacity (filling volume) [ml]	94 (85)	94	100 (75)	100 (90)	100	100	150	150	175	175
Diameter x length [mm]	38 x 103	38 x 110	44 x 100	44 x 100	44 x 100	45 x 100	51 x 99	56 x 113	62 x 139.2	61 x 118
Tube material	Stainless steel	PC	Glass	Glass	Glass	PC	PP	Glass	PP	PP
Item no.	13085	15094	15078	15106	15100	15103	15125	15206	15175	–

### Adapter

for RB400



Bore diameter x length [mm]	38.5 x 77		45.5 x 77.5			51.5 x 77	58 x 75	62.5 x 105	61 x 104
Tubes per adapter / rotor	1 / 4		1 / 4			1 / 4	1 / 4	1 / 4	1 / 4
Centrifuging radius [mm]	169		170			169	167	172	172
Item no.	17385		17390*			17395	17401**	17393***	17402***

Tube							
Rated capacity (filling volume) [ml]	200 (168)	200 (170)	200	225	250 (232)	250 (232)	400
Diameter x length [mm]	56 x 112	56 x 112	61 x 130	61 x 137	61.4 x 122	61.4 x 122	85 x 118
Tube material	PPCO	Glass	PP	PP	PF	PPCO	PPCO
Item no.	15202	15201	15174	–	15247	15249	15401

### Adapter

for RB400




Bore diameter x length [mm]	57.5 x 77	58 x 75	62.5 x 105	61 x 104	62.5 x 80		86 x 97
Tubes per adapter / rotor	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4		– / 4
Centrifuging radius [mm]	169	167	172	172	172		172
Item no.	17400	17401**	17393***	17402***	17347		–

\* Including rubber cushion 16051; \*\* Including rubber cushion 16250; \*\*\* Only possible without cap 17190

## Rotor SB-4x400










Item no. 11180

### Round bucket RB400 (Item no. 13190)

- Max. capacity: 4 x 400 ml
- Max. speed: 4,500 rpm
- Max. RCF (3-16T / 3-17KT): 3,894 x g
- Max. tube length, mid-bucket, without / with cap: 142 / 125 mm
- Biosafe with cap 17190 
- T<sub>min</sub> at maximum speed: 4 °C
- Angle: 90°



### Blood and urine tubes

									
Rated capacity (filling volume) [ml]	1.1 – 1.4	2.7 – 5	4 – 6	1.8 – 7	1.6 – 6	4 – 10	9.5 – 10	6 – 10	9 – 10
Diameter x length [mm]	8 x 82	11 x 82 – 108	13 x 81 – 106	13 x 81 – 107	13 x 81 – 106	15 x 91 – 118	15 x 106	16 x 106 – 107	16 x 108
Tube material	PP	PP	PET	PET	PP	PP	PET	PET	PP
Item no.	–	–	–	–	–	–	–	–	–

### Adapter

for RB400



Bore diameter x length [mm]	12.8 x 57	13.8 x 57	17.5 x 58
Tubes per adapter / rotor	25 / 100	17 / 68	12 / 48
Centrifuging radius [mm]	169	169	170
Item no.	17352	17356	17358



## Rotor SP-2x MTP-60

Item no. 110360

### incl. carrier MTP-60 (item no. 130360)


- Max. plate height: 60 mm
- Max. speed (3-16T / 3-17KT): 3,500 / 4,100 rpm
- Max. RCF (3-16T / 3-17KT): 1,739 / 2,387 x g
- Max. load per carrier: 400 g
- Tmin at maximum speed: 4 °C
- Angle: 90°



## Rotor SPC-2x MTP-66C55

Item no. 11241

### incl. carrier MTP-66C55 (item no. 13241), caps (item no. 17108), plate holder (item no. 17982)

- Max. plate height without / with cap: 66 / 55 mm
- Max. speed (3-16T / 3-17KT): 4,500 rpm
- Max. RCF (3-16T / 3-17KT): 3,011 x g
- Max. load per carrier: 320 g
- Biosafe with cap 17108 
- Tmin at maximum speed: 4 °C
- Angle: 90°



### Plate



Description	MTP (without lid)	MTP (with lid)	DWP	PCR plate 96-fold
W x D x H [mm]	128 x 86 x 15	128 x 86 x 17.5	128 x 86 x 44.5	128 x 86 x 20

### Adapter

for  
MTP-60



Bore diameter x length [mm]	—			
Plates per rotor	8	6	2	6
Centrifuging radius [mm]	127			
Item no.	—			

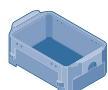
### Plate



Description	MTP (without lid)	MTP (with lid)	DWP	PCR plate 96-fold
W x D x H [mm]	128 x 86 x 15	128 x 86 x 17.5	128 x 86 x 44.5	128 x 86 x 20

### Adapter

for  
MTP-66C55




Bore diameter x length [mm]	—			
Plates per rotor (without / with cap)	8 / 6	6 / 6	2 / 2	6 / 4
Centrifuging radius [mm]	133			
Item no.	17982			

## Rotor FA-24x2

Item no. 120154

### with aluminium lid (Item no. 170154)


- Max. capacity: 24 x 2 ml
- Max. speed (3-16T / 3-17KT): 15,800 / 16,400 rpm
- Max. RCF (3-16T / 3-17KT): 23,723 / 25,559 x g
- Biosafe with aluminium lid 170154 
- Tmin at maximum speed: 4 °C
- Angle: 45°



## Rotor FA-24x2 Spin Column







Item no. 120324

### with aluminium lid (Item no. 170324)

- Max. capacity: 24 x 2 ml (with filter)
- Max. speed (3-16T / 3-17KT): 12,200 / 13,600 rpm
- Max. RCF (3-16T / 3-17KT): 16,141 / 20,058 x g
- Biosafe with aluminium lid 170324 
- Tmin at maximum speed: 4 °C
- Angle: 45°







### Tube

						
Rated capacity (filling volume) [ml]	0.2	0.4	0.5	0.5	1.5	2
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
Tube material	PP	PE	PP	PP	PP	PP
Item no.	15042	15014	15005	Paediatrics	15008	15040


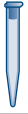






### Adapter

for FA-24x2



					
Bore diameter x length [mm]	6.3 x 18.5	6 x 45	8 x 45	11.1 x 29.5	11.1 x 38.5
Tubes per adapter / rotor	1 / 24	1 / 24	1 / 24	1 / 24	- / 24
Centrifuging radius [mm]	81	83	83	76	85
Item no.	13021	13000	13002	13074*	-





### Tube

								
Rated capacity (filling volume) [ml]	0.2	0.4	0.5	0.5	1.5	1.5	2	2
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	10.7 x 42	10.7 x 42
Tube material	PP	PE	PP	PP	PP	PP	PP	PP
Item no.	15042	15014	15005	Paediatrics	15008	-	15040	-

### Adapter

for FA-24x2 Spin Column




					
Bore diameter x length [mm]	6.3 x 18.5	6 x 45	8.1 x 45	11.1 x 29.5	11.1 x 38.5
Tubes per adapter / rotor	1 / 24	1 / 24	1 / 24	1 / 24	- / 24
Centrifuging radius [mm]	93	95	95	88	97
Item no.	13021	13000	13002	13074*	-

\* Only partial loading possible in some cases, depending on choice of paediatric tubes

## Rotor FA-30x2

Item no. 120331

### with aluminium lid (Item no. 170331)


- Max. capacity: 30 x 2 ml
- Max. speed (3-16T / 3-17KT): 13,800 / 14,700 rpm
- Max. RCF (3-16T / 3-17KT): 22,143 / 25,125 x g
- Biosafe with aluminium lid 170331 
- Tmin at maximum speed: 4 °C
- Angle: 45°



## Rotor FA-48x2


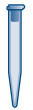




Item no. 120349

### with aluminium lid (Item no. 170349)

- Max. capacity: 48 x 2 ml
- Max. speed (3-16T / 3-17KT): 14,100 / 15,000 rpm
- Max. RCF (3-16T / 3-17KT): 22,227 / 25,155 x g
- Biosafe with aluminium lid 170349 
- Tmin at maximum speed: 4 °C
- Angle (outer / inner row): 25° / 53°








### Tube

						
Rated capacity (filling volume) [ml]	0.2	0.4	0.5	0.5	1.5	2
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
Tube material	PP	PE	PP	PP	PP	PP
Item no.	15042	15014	15005	Paediatrics	15008	15040


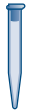



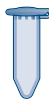
### Adapter

for  
FA-30x2



					
Bore diameter x length [mm]	6.3 x 18.5	6 x 45	8 x 45	11.1 x 29.5	11.1 x 38.5
Tubes per adapter / rotor	1 / 30	1 / 30	1 / 30	1 / 30	- / 30
Centrifuging radius [mm]	100	102	102	95	104
Item no.	13021	13000	13002	13074*	-






### Tube

						
Rated capacity (filling volume) [ml]	0.2	0.4	0.5	0.5	1.5	2
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
Tube material	PP	PE	PP	PP	PP	PP
Item no.	15042	15014	15005	Paediatrics	15008	15040

### Adapter

for  
FA-48x2




					
Bore diameter x length [mm]	6.3 x 18.5	6 x 45	8 x 45	11.1 x 29.5	11.1 x 38.5
Tubes per adapter / rotor	1 / 48	1 / 48	1 / 48	1 / 48	- / 48
Centrifuging radius outer / inner [mm]	96 / 96	98 / 98	98 / 98	91 / 91	100 / 100
Item no.	13021	13000	13002	13074*	-

\* Only partial loading possible in some cases, depending on choice of paediatric tubes

## Rotor FA-20x5-V

Item no. 120322

### with aluminium lid (Item no. 170322)


- Max. capacity: 20 x 5 ml conical
- Max. speed (3-16T / 3-17KT): 13,500 rpm
- Max. RCF (3-16T / 3-17KT): 21,191 x g
- Biosafe with aluminium lid 170322 
- Tmin at maximum speed: 4 °C
- Angle: 40°



## Rotor FA-10x10-U






Item no. 120111

### with aluminium lid (Item no. 170111)

- Max. capacity: 10 x 10 ml round-bottom
- Max. speed (3-16T / 3-17KT): 14,900 / 16,000 rpm
- Max. RCF (3-16T / 3-17KT): 21,842 / 25,186 x g
- Biosafe with aluminium lid 170111 
- Tmin at maximum speed: 4 °C
- Angle: 35°

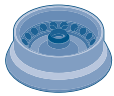






### Tube

					
Rated capacity (filling volume) [ml]	1.5	1.5–1.8	1.5	2	5
Diameter x length [mm]	11.7 x 34	12.3 x 49	10.7 x 42	10.7 x 42	17 x 60
Tube material	Glass	PP	PP	PP	PPCO
Item no.	HPLC	Cryo-Tube	15008	15040	–




### Adapter

for  
FA-20x5-V



				
Bore diameter x length [mm]	12.5 x 28	12.7 x 32	11.1 x 38.5	17 x 52
Tubes per adapter / rotor	1 / 20	1 / 20	1 / 20	– / 20
Centrifuging radius [mm]	77	81	89	104
Item no.	14081	14080	14082	–

### Tube

			
Rated capacity (filling volume) [ml]	10	10	10
Diameter x length [mm]	16.1 x 81.1	16.1 x 81.1	16.1 x 81.1
Tube material	PF	PC	PPCO
Item no.	15000	15010	15039

### Adapter

for  
FA-10x10-U




Bore diameter x length [mm]	16.3 x 69
Tubes per adapter / rotor	– / 10
Centrifuging radius [mm]	88
Item no.	–

## Rotor FA-12x15-V

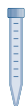
Item no. 120215

### with aluminium lid (Item no. 170215)

- Max. capacity: 12 x 15 ml conical
- Max. speed (3-16T / 3-17KT): 12,100 rpm
- Max. RCF (3-16T / 3-17KT): 16,205 x g
- Biosafe with aluminium lid 170215 
- Tmin at maximum speed: 4 °C
- Angle: 25°



### Tube



Rated capacity (filling volume) [ml]	15
Diameter x length [mm]	16.5 x 120
Tube material	PP
Item no.	15115

### Adapter

for  
FA-12x15-V




Bore diameter x length [mm]	17.5 x 106
Tubes per adapter / rotor	- / 12
Centrifuging radius [mm]	99
Item no.	-



## Rotor FA-8x30-U

Item no. 120158

### with aluminium lid (Item no. 170158)


- Max. capacity: 8 x 30 ml round-bottom
- Max. speed (3-16T / 3-17KT): 14,900 / 15,700 rpm
- Max. RCF (3-16T / 3-17KT): 22,835 / 25,353 x g
- Biosafe with aluminium lid 170158 
- Tmin at maximum speed: 4 °C
- Angle: 33°



## Rotor FA-6x50-V

Item no. 120250

### with aluminium lid (Item no. 170250)

- Max. capacity: 6 x 50 ml conical
- Max. speed (3-16T / 3-17KT): 12,500 rpm
- Max. RCF (3-16T / 3-17KT): 16,421 x g
- Biosafe with aluminium lid 170250 
- Tmin at maximum speed: 4 °C
- Angle: 25°



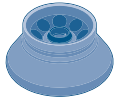
### Tube



Rated capacity (filling volume) [ml]	10	10	10	30 (26)	30 (26)	30 (28)
Diameter x length [mm]	16.1 x 81.1	16.1 x 81.1	16.1 x 81.1	25.3 x 98	25.3 x 98	25.3 x 98
Tube material	PF	PC	PPCO	PF	PPCO	PC
Item no.	15000	15010	15039	15029	15032	15030

### Adapter

for  
FA-8x30-U



Bore diameter x length [mm]	16.5 x 70			25.7 x 82.5		
Tubes per adapter / rotor	1 / 8			- / 8		
Centrifuging radius [mm]	82			92		
Item no.	13059			-		

### Tube



Rated capacity (filling volume) [ml]	15	25	30	50 (38)	50 (43)	50
Diameter x length [mm]	16.5 x 120	25 x 90	25 x 107	28.8 x 107	28.5 x 107	29 x 117
Tube material	PP	PP	PP	PPCO	PF	PP
Item no.	15115	-	-	15052	15051	15151

### Adapter

for  
FA-6x50-V




Bore diameter x length [mm]	17 x 107	25.5 x 71		30 x 91	30 x 101
Tubes per adapter / rotor	1 / 6	1 / 6		1 / 6	- / 6
Centrifuging radius [mm]	93	71		84	94
Item no.	13060	13064		13079	-










## Rotor FA-8x50-U

Item no. 120150

### with aluminium lid (Item no. 170150)

- Max. capacity: 8 x 50 ml round-bottom
- Max. speed (3-16T / 3-17KT): 11,900 rpm
- Max. RCF (3-16T / 3-17KT): 16,149 x g
- Biosafe with aluminium lid 170150 
- Tmin at maximum speed: 4 °C
- Angle: 29°









Tube										
Rated capacity (filling volume) [ml]	10	10	14	15	30 (26)	30 (28)	30	50 (38)	50 (43)	50
Diameter x length [mm]	16.1 x 81.1	16.1 x 81.1	17 x 100	17.5 x 106	25.3 x 98	25.3 x 98	23.6 x 106	28.8 x 107	28.5 x 107	28.5 x 101.5
Tube material	PF	PPCO	PP	HS-Glass	PPCO	PC	HS-Glass	PPCO	PF	Stainless steel
Item no.	15000	15039	15023	15085	15032	15030	15086	15052	15051	13055

### Adapter

for  
FA-8x50-U



Adapter						
Bore diameter x length [mm]	16.2 x 65	17 x 88	18 x 90	25.6 x 75	24.5 x 93	29 x 98
Tubes per adapter / rotor	1 / 8	1 / 8	1 / 8	1 / 8	1 / 8	- / 8
Centrifuging radius [mm]	70	97	97	87	100	102
Item no.	13087	13062	16018	13086	16030	-

## Cleanroom

### Robust and resistant



An extremely resistant cleanroom coating is available from Sigma for all aluminium 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.

**Cleanroom coating**  
Available for all accessories






## Rotor FA-6x94-U

item no. 120395

### with aluminium lid (Item no. 170395)

- Max. capacity: 6 x 94 ml round-bottom
- Max. speed (3-16T / 3-17KT): 12,000 rpm
- Max. RCF (3-16T / 3-17KT): 15,777 x g
- Biosafe with aluminium lid 170395 
- Tmin at maximum speed: 4 °C
- Angle: 25°

















Tube					
Rated capacity (filling volume) [ml]	10	10	10	15	30 (26)
Diameter x length [mm]	16.1 x 81.1	16.1 x 81.1	16.1 x 81.1	17.5 x 106	25.3 x 98
Tube material	PF	PC	PPCO	HS-Glass	PP
Item no.	15000	15010	15039	15085	15029

### Adapter

for FA-6x94-U








Adapter				
Bore diameter x length [mm]	16.2 x 71	18 x 87	17 x 107	26 x 83
Tubes per adapter / rotor	2 / 12	1 / 6	1 / 6	1 / 6
Centrifuging radius [mm]	69	90	97	81
Item no.	13084	16019	13081	13083

Tube										
Rated capacity (filling volume) [ml]	30 (28)	30	50 (38)	50 (43)	50	50	85 (73)	85 (76)	94 (85)	94
Diameter x length [mm]	25.3 x 98	23.6 x 106	28.8 x 107	28.5 x 107	28.5 x 101.5	29.5 x 117	38 x 112	38 x 112	38 x 103	38 x 110
Tube material	PC	HS-Glass	PPCO	PF	Stainless steel	PP	PF	PPCO	Stainless steel	PC
Item no.	15030	15086	15052	15051	13055	15151	15080	15076	13085	15094

### Adapter

for FA-6x94-U



Adapter					
Bore diameter x length [mm]	26 x 83	24.5 x 88	29 x 97	30 x 100	38.3 x 91
Tubes per adapter / rotor	1 / 6	1 / 6	1 / 6	1 / 6	- / 6
Centrifuging radius [mm]	81	91	95	98	98
Item no.	13083	16031	13082	13080	-

# Sigma Timer

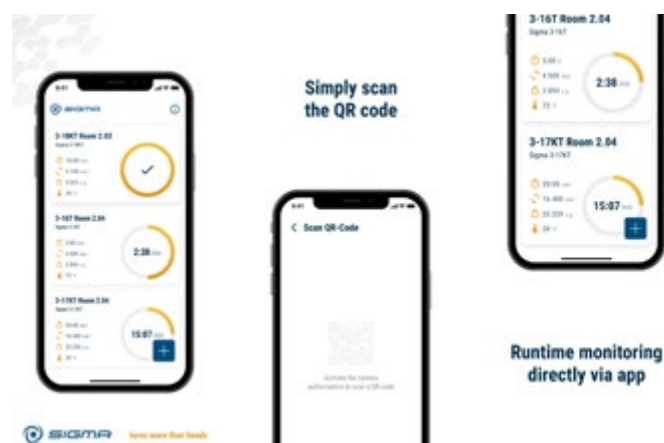
## App for displaying remaining run time

The Sigma Timer app can be used to track the remaining run time of up to 32 centrifuges on mobile devices. To do this, the Spincontrol T controller generates a QR code containing the run data of the laboratory centrifuge. The Sigma Timer app scans the QR code, shows the transmitted data, counts the remaining run time and notifies the user of the current status.

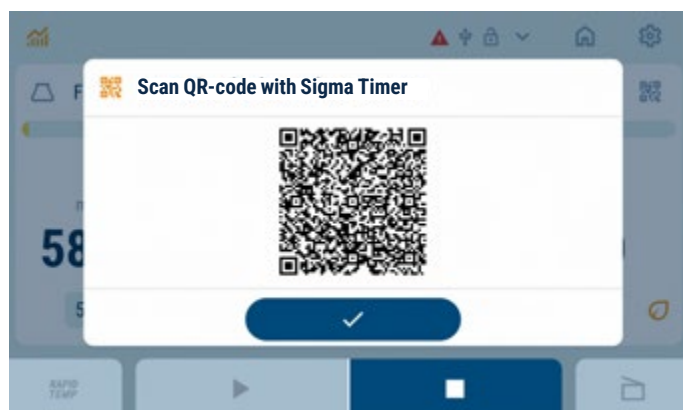
The app displays the user-specific name of the laboratory centrifuge, the model name and number, the parameters set (run time, speed, gravity field and temperature) and remaining run time. This enables users to easily monitor the run time even when they are outside the laboratory. Sigma Timer allows experimenters to use run time efficiently for other tasks – even outside the laboratory – and be back on site in time to process the specimens further.

It's incredibly simple. Just download the app for the mobile device, start the centrifugation run and scan the QR code generated in the Spincontrol T with Sigma Timer.

The app then displays remaining run time and allows users to monitor progress outside the lab.



Please note that this does not provide a live display of the centrifuge's status. Data is transmitted only once. If the run is interrupted at any point, it will not be displayed in the app. Due to the braking time, e.g. free run-out or L1 curves, deviations may occur.



Sigma 3-16T



 SIGMA

# Spincontrol T controller

## Easy to use with a touchscreen and lots of options

The touchscreen-based Spincontrol T controller sets new standards in control technology for Sigma laboratory centrifuges. A clear main screen displaying all process parameters guides the user intuitively to the input menus where parameters can be conveniently set. The buttons for start, stop and lid opening are always visible. Another practical feature is the progress bar, which displays the status of a program run.

Each input menu has a drop-down menu where users can directly select optional process parameters, such as the start timer. Up to 99 programs can be saved in the program library and marked as favourites. The three most recently used programs, including their run parameters, are listed in the program drop-down menu for quick selection.

The features leave nothing to be desired, including a start timer, ECO mode, rotor/bucket cycle counter and QR code to view the operating instructions in the Sigma Download Centre. These are just some of the highlights that make the Spincontrol T a modern system for today's laboratory requirements.

Spincontrol T includes internal quality management functions. If the Quality Control setting is activated, users receive feedback on the quality of the run parameters after each run. Quality data for the last 20 runs can be viewed in the menu or retrieved via a USB-C storage device, which helps with professional documentation

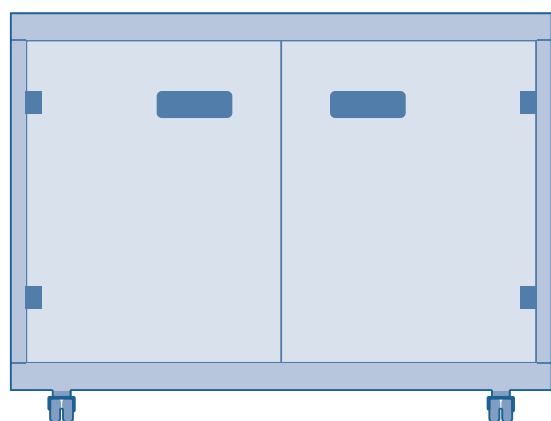
Display	Color-TFT-Touchscreen
Permanent display of set and actual values	+
Languages	DE, EN
Timer (s; h:min)	10 – 99:59
Time counting from when the target speed is reached, can be deactivated	+
Short run, continuous run	+, +
Time steps (s)	1
Speed steps (rpm)	1
RCF steps (× g)	1
Temperature steps (°C)	1
Quality control, process monitoring of time, speed, RCF, temperature; adjustable	+
Progress indicator	+
Programs	99
Free program name (alphanumeric)	+
Program library	+
Favorite programs can be marked	+
Marking of favorite rotors	+
Linear / quadratic acceleration curves	9 / 9
Linear / quadratic braking curves	9 / 9
Freewheel	+
Automatic lid opening at end of run, adjustable	+
Start timer, adjustable	+
Standstill cooling, can be deactivated*	+
Rapid cooling "Rapid Temp"*	+
ECO mode	+
Acoustic signal, can be deactivated	+
Centrifuge cycle counter	+
Monitoring of rotor cycles	+
Monitoring of bucket cycles	+
Warning message when service life ends	+
Screen lock, adjustable	+
USB port for run data export, program import/export	+
Real-time clock, date, time zones, adjustable	+
QR code for Sigma Timer	+
Service QR code	+
QR code for operating instructions	+
Microprocessor controlled	+

\* Only for Sigma 3-17KT



# Centrifuge tables

Sigma centrifuge tables are available in eight different sizes. Matched to the corresponding centrifuge dimensions, they combine convenient work height with an optimally calculated footprint. The tables are made from coated sheet steel and are equipped with a storage compartment (with two doors) and a convenient pull-out shelf. Lockable castors allow the centrifuge tables to be easily moved and positioned in the laboratory.



## Centrifuge table 17920

For Sigma 2-16KL

W x H x D [mm]: 600 x 501 x 550

## Centrifuge table 17921

For Sigma 6-16KS

W x H x D [mm]: 790 x 515 x 684

## Centrifuge table 170001

For Sigma 4-5KL

W x H x D [mm]: 605 x 581 x 635

## Centrifuge table 17922

For Sigma 6-16S

W x H x D [mm]: 581 x 481 x 684

## Centrifuge table 17923

For Sigma 3-30KS

W x H x D [mm]: 570 x 481 x 616

## Centrifuge table 170400

For Sigma 3-16T, 3-17KT

W x H x D [mm]: 460 x 581 x 718

## Centrifuge table 17926

For Sigma 3-16KL, 3-18KS, 4-16KS

W x H x D [mm]: 650 x 501 x 647

## Centrifuge table 17927

For Sigma 3-16L, 4-5L, 4-16S

W x H x D [mm]: 490 x 497 x 647

# Premium Quality

## Made in Germany

The Sigma 3-16T and Sigma 3-17KT meet the highest technical requirements of laboratory standards. Developed and produced at our facility in Osterode, Germany, they are high-performance, durable and energy-efficient quality products and conform to the latest safety, emissions and environmental standards. Sigma guarantees the availability of spare parts and wearing parts for at least 10 years. Furthermore, you benefit from our extensive services portfolio, including commissioning, maintenance, device calibration

and more. Our qualified service technicians are ready to provide professional maintenance and repair as well as loaner devices if necessary. All support services are designed to ensure reliability and optimise system availability.

	Sigma 3-16T	Sigma 3-17KT
<b>Max. capacity [ml]</b>		
Swing-out rotor	4 x 400	4 x 400
Fixed-angle rotor	6 x 94	6 x 94
<b>Max. RCF</b>	23,723	25,559
<b>Maximum speed [rpm]</b>	15,800	16,400
<b>Minimum speed [rpm]</b>	100	100
<b>Noise level at maximum speed (approx.) [dB(A)]</b>		
Fixed-angle rotor 120154	≤ 64	≤ 61
Swing-out rotor 11180 with bucket 13190	≤ 65	≤ 56
<b>Max. acceleration time [s]</b>		
Fixed-angle rotor 120154	≤ 34	≤ 42
Swing-out rotor 11180 with bucket 13190	≤ 73	≤ 78
<b>Max. braking time [s]</b>		
Fixed-angle rotor 120154	≤ 38	≤ 46
Swing-out rotor 11180 with bucket 13190	≤ 61	≤ 68
<b>Temperature adjustment range [°C]</b>	–	-20 – +40
<b>Power consumption [W]</b>	1,000	1,400
<b>Height x width x depth [mm]</b>	337 x 460 x 521	337 x 460 x 716
<b>Height with open lid [mm]</b>	755	755
<b>Weight without rotor [kg]</b>	50	75
<b>Refrigerant</b>	–	R452a*
Filling quantity [kg] / Max. permissible pressure [bar]	–	0.18 / 27
CO <sub>2</sub> equivalent [t]	–	0.385

\* Contains fluorinated greenhouse gases in a hermetically sealed refrigeration system. (EU) 2024/2729; 2028-DEC-31



### Calibration

Documented proof of compliance with essential technical parameters.

Speed or run time (item no. 17713)  
 Speed and run time (item no. 17714)  
 Speed, run time, temperature (item no. 17715)

### Device qualification (IQOQ)

This comprehensive device qualification includes installation qualification and metrological checking of all functional parameters with a rotor.

IQOQ documents (item no. 170000)  
 IQOQ on site (upon request)

**Sigma 3-16T** centrifuge  
 100-240 V 50/60 Hz (item no. 100018)

**Sigma 3-17KT** centrifuge  
 220-240 V 50 Hz (item no. 100025)  
 100 V 50/60 Hz (item no. 100026)  
 120 V 60 Hz (item no. 100027)

**Sigma 3-16T** centrifuge, IVD Version  
 100-240 V 50/60 Hz (item no. 100023)

**Sigma 3-17KT** centrifuge, IVD-Version  
 220-240 V 50 Hz (item no. 100028)  
 100 V 50/60 Hz (item no. 100029)  
 120 V 60 Hz (item no. 100030)



# Product portfolio

Sigma offers a broad product portfolio with more than 25 laboratory centrifuges. They can be combined with an extensive range of fixed-angle and swing-out rotors and a large variety of accessories to obtain the right device configuration for every application.



**Microcentrifuge**  
**Sigma 1-16**

- 36 x 2 ml
- 15,000 rpm
- 20,627 x g

**Floor-standing centrifuge**  
**Sigma 8KS**

- 12 x 1,000 ml
- 5,100 rpm
- 8,578 x g

- 6 x 1,000 ml
- 10,500 rpm
- 20,461 x g



**Benchtop centrifuge**  
**Sigma 2-7**

- 4 x 100 ml
- 4,000 rpm
- 2,540 x g

- 30 x 15 ml
- 4,000 rpm
- 2,486 x g



**Benchtop centrifuge**  
**Sigma 3-30KS**

- 4 x 100 ml
- 5,000 rpm
- 3,969 x g

- 6 x 94 ml
- 30,000 rpm
- 70,121 x g



**Robot centrifuge**  
**Sigma 4-5KRL**

- 100 x 15 ml
- 4,700 rpm
- 4,470 x g

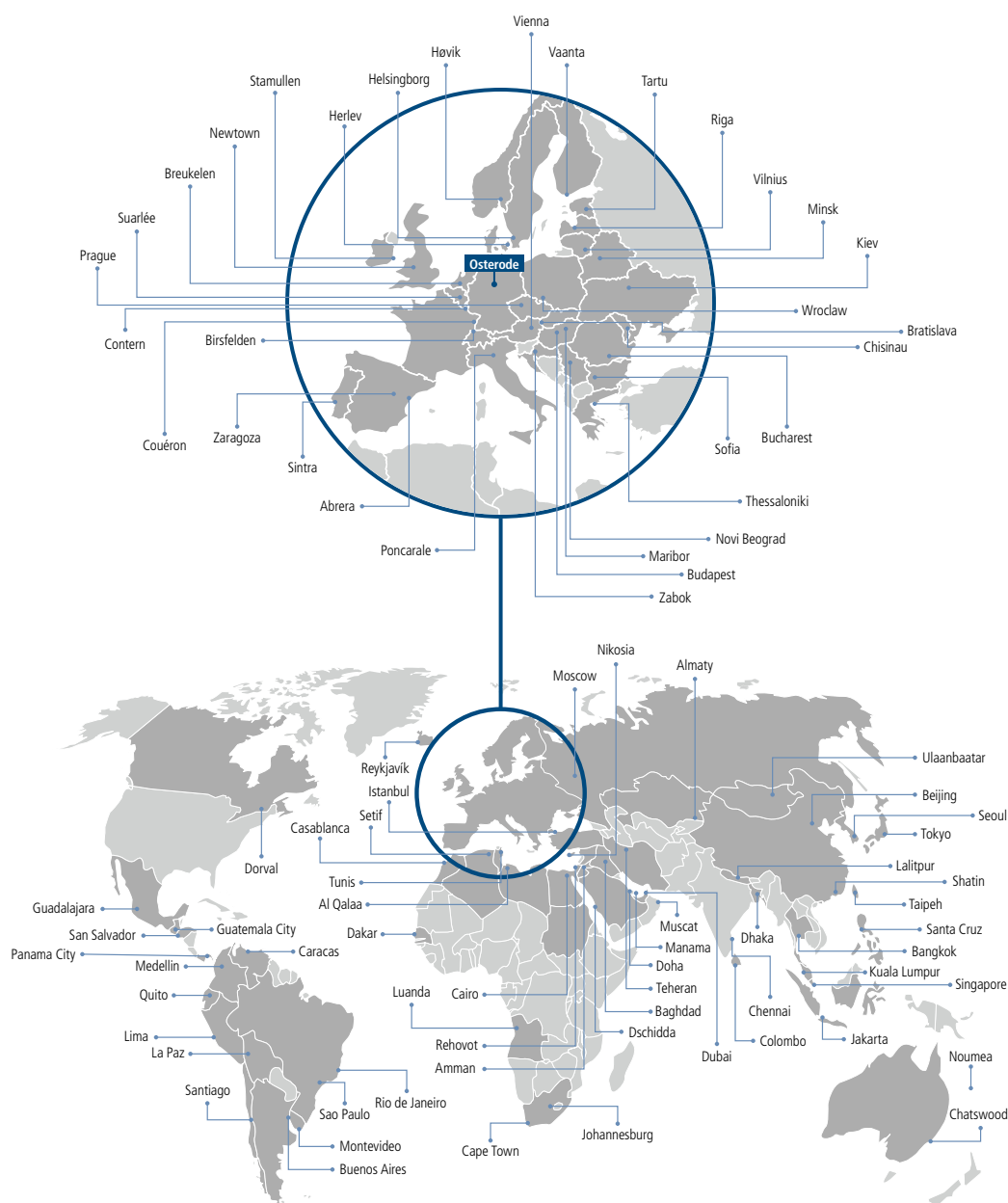
**Legend**

- Max. capacity
- Max. speed
- Max. RCF
- Swing-out rotor
- Fixed-angle rotor

# Global service

## For local product security

Our trained service partners in over 100 countries ensure consistently high quality in accordance with national regulations. Our specialists can also be engaged quickly around the world, either remotely or on site in person.



Selected locations of our representatives.

An overview of all representatives with detailed contact information can be found at [www.sigma-zentrifugen.de/en/sales-partners](http://www.sigma-zentrifugen.de/en/sales-partners)



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