

Sigma 6-16S
Sigma 6-16HS
Sigma 6-16KS
Sigma 6-16KHS



Benchtop centrifuge

- Unrefrigerated
- Heatable
- Refrigerated
- Refrigerated/
heatable



High performance and versatility



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 40 years. The company stands for innovative products and development of durable, energy-efficient and especially user-friendly devices.

Designed for universal deployment, the Sigma 6-16 series of centrifuges is suitable for a wide variety of routine and research applications. Along with high throughput with fixed-angle and swing-out rotors, they feature impressive RCF values up to 25,419 x g. Laboratory staff and scientists around the world appreciate the high versatility, advanced user interface and outstanding reliability.

Particularly due to the ability to use large-volume fixed-angle rotors with high RCF, the centrifuges cover a distinctly broader range of applications compared to competitive units. A unique feature is the maximum capacity of up to 6 x 500 ml in a fixed-angle rotor with RCF up to 17,207 x g.

In addition to the unrefrigerated Sigma 6-16S and the refrigerated Sigma 6-16KS, a heated version (Sigma 6-16HS) is available with precisely adjustable temperature in the range of 0 °C to +70 °C. This model is specifically optimised for the determination of water content in crude petroleum and derivative products in accordance with the ASTM method. The portfolio is rounded out by the refrigerable and heatable model 6-16KHS, which is especially suitable for applications where the viscosity of the specimens must be reduced.

Multitalent for the most demanding expectations

Intuitive, powerful and safe

The Sigma 6-16 series of centrifuges is designed for research tasks as well as routine procedures in laboratory operations. They are frequently used in microbiology, molecular biology, pharmacology, genetics, bioproduction, cell culture, clinical diagnostics, and transfusion facilities.

Along with impressive performance specifications, this series of devices features intuitive operation and well-considered features. The patented one-knob Spincontrol S controller provides superior operating convenience, safety and versatility. Thanks to the intuitive user

interface and clearly organised menu structure, operating parameters can be entered and adjusted quickly. The acceleration and braking curves (30 each) facilitate optimisation of separation runs and results. Routine procedures can be stored with user-defined names and quickly retrieved from the integrated process library. With automatic rotor identification, run time and speed monitoring, password-protected access to the controller and secure program storage, the centrifuges stand for uncompromising safety.



Sigma 6-16S

- Universal benchtop centrifuge
- Speed range up to 13,500 rpm
- Maximum capacity: 4 x 1,000 ml
- User-friendly Spincontrol S controller
- Extra large TFT display
- 60 programs
- Compact, space-saving unit
- Low noise level
- Automatic rotor identification
- Zero-maintenance induction motor
- Motorised lid lock
- Automatic imbalance monitoring
- Rotor life monitoring for high safety
- Easily cleaned stainless steel chamber
- Window in lid for external speed monitoring
- Manufactured according to the latest national and international standards (e.g. EN 61010-2-020)

Sigma 6-16HS

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

- Heatable, non-refrigerated centrifuge
- Temperature setting range: 0°C to +70°C
- Optimised for measurement of water content in crude petroleum and derivative products (per ASTM)



Sigma 6-16KS

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

- Speed range up to 15,000 rpm
- High-performance cooling
- Temperature setting range: -20°C to +40°C
- Pre-cooling program
- Rotor cooling also possible at standstill

Options

- GMP version with water-cooled compressor and special housing
- Inert gas version with inert gas injection system

Sigma 6-16KHS

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

- Heatable refrigerated centrifuge
- Standstill cooling or heating
- Temperature setting range: -20°C to +60°C

Option

- Inert gas version with inert gas injection system



Rotors and accessories

Large selection and a multitude of applications

The compact Sigma 6-16 series devices are available with numerous swing-out and fixed-angle rotors, various buckets and adapters. A total of 12 fixed-angle and 6 swing-out rotors are available. The extensive accessories accept tubes from 0.2 ml to 1,000 ml as well as blood bags, petroleum tubes, microtiter plates and deep-well plates.

The swing-out rotors can hold up to 4 litre (4 x 1,000 ml) or (for example) up to 96 conical 15 ml tubes or 40 conical 50 ml tubes. In many cases the configurations achieve best-in-class RCF for this

centrifuge segment. Unique in the domain of fixed-angle rotors are the 6 x 500 ml rotor with a maximum RCF of 17,207 x g and the 6 x 250 ml fixed-angle rotor with a maximum RCF of more than 20,300 x g.

As a special feature, Sigma can produce custom accessories upon request. The rotors and accessories are made from certified high-grade materials to withstand the most severe stresses.

Swing-out rotors starting on page 9

Swing-out rotor 11660 / 11650*

- Max. capacity: 4 x 1,000 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 4,181 / 5,467 x g
- Accessories in part with biosafe closure
- Angle: 90°

* Rotor 11650 in 6-16KS; max. 4,700 rpm and 5,236 x g

► p. 9



Swing-out rotor 11150

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,500 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 4,845 / 5,525 x g
- Angle: 90°

► p. 19



Swing-out rotor 11156

- Max. capacity: 6 x 200 ml
- Max. speed (6-16S / 6-16KS): 4,500 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 4,324 / 5,554 x g
- Angle: 90°

► p. 31



Swing-out rotor 11165 for ASTM tubes

- Max. capacity: 4 x 100 ml
- Max. speed (6-16S / 6-16KS): 3,000 rpm
- Max. RCF (6-16S / 6-16KS): 1,922 x g
- Angle: 90°

► p. 35



Swing-out rotor 11148

- Max. capacity: 32 x 2 ml
- Max. speed (6-16S / 6-16KS): 12,000 / 13,200 rpm
- Max. RCF (6-16S / 6-16KS): 13,523 / 16,363 x g
- Angle: 90°

► p. 34



MTP swing-out rotor 11150

- Max. capacity: 20 microtiter plates
- Max. speed (6-16S / 6-16KS): 4,500 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 3,622 / 4,653 x g
- Angle: 90°

► p. 36



MTP swing-out rotor 11118

- Max. capacity: 10 microtiter plates
- Max. speed (6-16S / 6-16KS): 5,700 rpm
- Max. RCF (6-16S / 6-16KS): 5,485 x g
- Biosafe with cap 17108
- Angle: 90°

► p. 37



MTP swing-out rotor 11650 / 11660

- Max. capacity: 20 microtiter plates
- Max. speed (6-16S / 6-16KS): 4,200 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 3,589 / 4,565 x g
- Angle: 90°

► p. 37



Fixed-angle rotors starting on page 38

► p. 38

Fixed-angle rotor 12449

- Max. capacity: 48 x 2 ml
- Max. speed (6-16S / 6-16KS): 13,500 / 15,000 rpm
- Max. RCF (6-16S / 6-16KS): 20,376 / 25,155 x g
- Biosafe with aluminium lid 17612 
- Angle (outer / inner row): 25° / 53°



► p. 39

Fixed-angle rotor 12201

- Max. capacity: 100 x 2 ml
- Max. speed (6-16S / 6-16KS): 9,000 / 9,600 rpm
- Max. RCF (6-16S / 6-16KS): 14,761 / 16,795 x g
- Angle (both rows): 45°



► p. 39

Fixed-angle rotor 12450

- Max. capacity: 24 x 5 ml conical
- Max. speed (6-16S / 6-16KS): 13,000 / 14,000 rpm
- Max. RCF (6-16S / 6-16KS): 21,917 / 25,419 x g
- Biosafe with aluminium lid 17614 
- Angle: 40°



► p. 40

Fixed-angle rotor 12168

- Max. capacity: 20 x 10 ml
- Max. speed (6-16S / 6-16KS): 12,500 / 14,000 rpm
- Max. RCF (6-16S / 6-16KS): 17,119 / 21,475 x g
- Angle (both rows): 25°



► p. 40

Fixed-angle rotor 12170

- Max. capacity: 12 x 15 ml conical
- Max. speed (6-16S / 6-16KS): 12,500 / 13,500 rpm
- Max. RCF (6-16S / 6-16KS): 17,469 / 20,376 x g
- Angle (both rows): 25°



► p. 41

Fixed-angle rotor 12174

- Max. capacity: 24 x 15 ml conical
- Max. speed (6-16S / 6-16KS): 10,500 / 12,000 rpm
- Max. RCF (6-16S / 6-16KS): 15,531 / 20,285 x g
- Angle (outer / inner row): 30° / 40°



► p. 41

Fixed-angle rotor 12172

- Max. capacity: 12 x 30 ml round-bottom
- Max. speed (6-16S / 6-16KS): 12,500 / 14,000 rpm
- Max. RCF (6-16S / 6-16KS): 19,216 / 24,104 x g
- Angle: 30°



► p. 42

Fixed-angle rotor 12266

- Max. capacity: 8 x 50 ml round-bottom
- Max. speed (6-16S / 6-16KS): 12,500 / 14,000 rpm
- Max. RCF (6-16S / 6-16KS): 17,469 / 21,913 x g
- Biosafe with aluminium lid 17605 
- Angle: 25°



► p. 42

Fixed-angle rotor 12269

- Max. capacity: 8 x 50 ml conical
- Max. speed (6-16S / 6-16KS): 12,500 / 13,500 rpm
- Max. RCF (6-16S / 6-16KS): 18,168 / 21,191 x g
- Biosafe with aluminium lid 17604 
- Angle: 25°



► p. 43

Fixed-angle rotor 12265

- Max. capacity: 6 x 94 ml round-bottom
- Max. speed (6-16S / 6-16KS): 12,500 / 14,000 rpm
- Max. RCF (6-16S / 6-16KS): 18,517 / 23,228 x g
- Biosafe with aluminium lid 17607 
- Angle: 25°



► p. 44

Fixed-angle rotor 12356

- Max. capacity: 6 x 250 ml
- Max. speed (6-16S / 6-16KS): 9,000 / 11,200 rpm
- Max. RCF (6-16S / 6-16KS): 13,131 / 20,335 x g
- Biosafe with aluminium lid 17603 
- Angle: 30°



► p. 45

Fixed-angle rotor 12600

- Max. capacity: 6 x 500 ml
- Max. speed (6-16S / 6-16KS): 8,000 / 9,600 rpm
- Max. RCF (6-16S / 6-16KS): 11,949 / 17,207 x g
- Biosafe with aluminium lid 17600 
- Angle: 30°





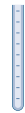
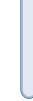
Swing-out rotor 11650 / 11660

Round bucket 13650 (1 set = 2 pcs.)

- Max. capacity: 4 x 1,000 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 4,181 / 5,236 x g
- Max. tube length, mid-bucket, without / with cap: 174 / 165 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C*
- Angle: 90°

*Max. speed for 4°C of rotor 11650: 4,500 min⁻¹



Tube										
Rated capacity (filling volume) [ml]	1.5	2	5	5	6 (5)	7	10	10	10	10
Diameter x length [mm]	10.7 x 42	10.7 x 42	12 x 75	17 x 60	12 x 100	12 x 100	16.1 x 81.1	16.1 x 81.1	16.1 x 81.1	16 x 100
Tube material	PP	PP	PS	PPCO	Glass	Glass	PF	PC	PPCO	Glass
Item no.	15008	15040	15060	—	15007	15027	15000	15010	15039	15015

Adapter

for round bucket 13650



						
Bore diameter x length [mm]	11.1 x 38.5	12.8 x 52	17 x 52	12.8 x 74	16.5 x 55	17.5 x 55
Tubes per adapter / rotor	26 / 104	37 / 148	12 / 48	32 / 128	20 / 80	19 / 76
Centrifuging radius [mm]	205	204	209	206	207	207
Item no.	17653	17652	17211	17654	17655	17658

Tube									
Rated capacity (filling volume) [ml]	10	14	14	15 (13)	15	25	25	25	30 (26)
Diameter x length [mm]	16 x 100	17 x 100	17 x 100	17 x 110	16.5 x 120	25 x 90	24 x 100	24 x 100	25.3 x 98
Tube material	Glass	PS	PP	Glass	PP	PP	Glass	Glass	PF
Item no.	15024	15020	15023	15022	15115	—	15025	15026	15029

Adapter

for round bucket 13650



					
Bore diameter x length [mm]	17.5 x 55	17 x 78.5	17 x 78.5	25.5 x 70	25.5 x 77
Tubes per adapter / rotor	19 / 76	12 / 48	15 / 60	7 / 28	8 / 32
Centrifuging radius [mm]	207	210	209	202	209
Item no.	17658	17659	17660*	17662	17670

* Max. cap. diameter for culture tubes 22 mm

Swing-out rotor 11650 / 11660

Round bucket 13650 (1 set = 2 pcs.)

- Max. capacity: 4 x 1,000 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 4,181 / 5,236 x g
- Max. tube length, mid-bucket, without / with cap: 174 / 165 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C*
- Angle: 90°

*Max. speed for 4°C of rotor 11650: 4.500 min⁻¹



Tube

									
Rated capacity (filling volume) [ml]	30 (26)	30 (28)	30	30	50 (38)	50 (43)	50	50	50
Diameter x length [mm]	25.3 x 98	25.3 x 98	24 x 105	25 x 107	28.8 x 107	28.5 x 107	28.5 x 101.5	34 x 100	34 x 100
Tube material	PPCO	PC	Glass	PP	PPCO	PF	Stainless steel	Glass	Glass
Item no.	15032	15030	15033	—	15052	15051	13055	15045	15049

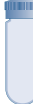
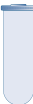
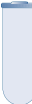
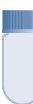
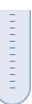
Adapter

for round bucket 13650



				
Bore diameter x length [mm]	25.5 x 77	25.5 x 70	29.5 x 77	35.5 x 77.5
Tubes per adapter / rotor	8 / 32	7 / 28	7 / 28	4 / 16
Centrifuging radius [mm]	209	202	209	209
Item no.	17670	17662	17676	17675

Tube

									
Rated capacity (filling volume) [ml]	50	50	50	85 (73)	85 (76)	94 (85)	94	100 (75)	100 (90)
Diameter x length [mm]	35 x 100	29 x 117	29 x 117	38 x 112	38 x 112	38 x 103	38 x 110	44 x 100	44 x 100
Tube material	Glass	PP	PP	PF	PPCO	Stainless steel	PC	Glass	Glass
Item no.	15056	—	15151	15080	15076	13085	15094	15078	15106

Adapter

for round bucket 13650



						
Bore diameter x length [mm]	35.5 x 77.5	29.5 x 74	29.5 x 78.5	29.5 x 78	38.5 x 77	45.5 x 77
Tubes per adapter / rotor	4 / 16	5 / 20	5 / 20	7 / 28	3 / 12	2 / 8
Centrifuging radius [mm]	209	206	210	197	209	209
Item no.	17675	17678	17677	17679*	17685	17690**

* Only possible without cap 17170; ** Including rubber cushion 16051

Swing-out rotor 11650 / 11660

Round bucket 13650 (1 set = 2 pcs.)

- Max. capacity: 4 x 1,000 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 4,181 / 5,236 x g
- Max. tube length, mid-bucket, without / with cap: 174 / 165 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C*
- Angle: 90°

*Max. speed for 4°C of rotor 11650: 4.500 min⁻¹



Tube										
Rated capacity (filling volume) [ml]	100	100	150	150	175	175	200 (168)	200 (170)	200	200
Diameter x length [mm]	44 x 100	45 x 100	51 x 99	56 x 113	61 x 118	62 x 139.2	56 x 112	56 x 112	61 x 130	56 x 135
Tube material	Glass	PC	PP	Glass	PP	PP	PPCO	Glass	PP	Glass
Item no.	15100	15103	15125	15206	—	15175	15202	15201	15174	15254

Adapter

for round bucket 13650



									
Bore diameter x length [mm]	45.5 x 77	58 x 110	58 x 100	61 x 100	62.5 x 110	57.5 x 77	58 x 110	62.5 x 110	58 x 110
Tubes per adapter / rotor	2 / 8	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4
Centrifuging radius [mm]	209	209	207	212	212	209	207	212	207
Item no.	17690*	17692	17695**	17694	17693	17696	17695**	17693	17695**

Tube									
Rated capacity (filling volume) [ml]	225	230 (220)	250 (232)	250 (232)	250	250	250	400	500 (435)
Diameter x length [mm]	61 x 137	56 x 134	61.4 x 122	61.4 x 122	61.4 x 125	61 x 145	59.7 x 171.2	85 x 118	69 x 165
Tube material	PP	Glass	PF	PPCO	Stainless steel	PP	PP	PPCO	PPCO
Item no.	—	15250	15247	15249	13255	—	—	15401	15507

Adapter

for round bucket 13650



							
Bore diameter x length [mm]	61 x 100	58 x 110	62.5 x 77	62.5 x 110	62.5 x 110	86 x 107	70 x 110
Tubes per adapter / rotor	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4
Centrifuging radius [mm]	212	207	209	212	212	212	212
Item no.	17694	17695**	17698	17693	17693***	13654	13655

* Including rubber cushion 16051; ** Including rubber cushion 16250; *** Only possible without cap 17170

Swing-out rotor 11650 / 11660

Round bucket 13650 (1 set = 2 pcs.)

- Max. capacity: 4 x 1,000 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 4,181 / 5,236 x g
- Max. tube length, mid-bucket, without / with cap: 174 / 165 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C*
- Angle: 90°

*Max. speed for 4°C of rotor 11650: 4.500 min⁻¹



Tube

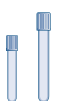
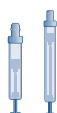
						
Rated capacity (filling volume) [ml]	500	500	500	750 (680)	750	1.000 (950)
Diameter x length [mm]	69.5 x 152	85 x 135	95.5 x 147	85 x 173	100 x 127	100 x 155.5
Tube material	Stainless steel	PPCO	PP	PPCO	PPCO	PPCO
Item no.	13507	15501	—	15751	15917	15918*

Adapter

for round bucket 13650

					
Bore diameter x length [mm]	70 x 110	86 x 107	96.3 x 110	86 x 107	101 x 126
Tubes per adapter / rotor	1 / 4	1 / 4	1 / 4	1 / 4	— / 4
Centrifuging radius [mm]	212	209	212	209	212
Item no.	13655	13654	17682	13654**	—

Blood and urine tubes

										
Rated capacity (filling volume) [ml]	1.1–1.4	2.7–5	1.6–6	4–6	1.8–7	4–10	9.5–10	6–10	9–10	8
Diameter x length with closure [mm]	8 x 82	11 x 82–108	13 x 81–106	13 x 81–106	13 x 81–107	15 x 91–118	15 x 106	16 x 106–107	16 x 108	16 x 131
Tube material	PP	PP	PP	PET	PET	PP	PET	PET	PP	Glass
Item no.	—	—	—	—	—	—	—	—	—	—

Adapter

for round bucket 13650

				
Bore diameter x length [mm]	12.8 x 52	13.8 x 54	16.5 x 55	17.5 x 75
Tubes per adapter / rotor	37 / 148	23 / 92	20 / 80	19 / 76
Centrifuging radius [mm]	204	206	207	207
Item no.	17652	17656	17655	17658

* Max. load 1,000 g at 4,700 rpm or 1.120 g at 4,300 rpm, ** Only possible without cap 17170

Swing-out rotor 11650 / 11660

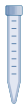
Bucket 13635 (1 set = 2 pcs.)

- Max. capacity: 40 x 50 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 3,846 / 4,816 x g
- Max. tube length mid-bucket: 155 mm
- Max. speed for 4°C: 4.600 min⁻¹*
- Angle: 90°

*Max. speed for 4°C of rotor 11650: 4.500 min⁻¹



Tube

			
Rated capacity (filling volume) [ml]	15	50	50
Diameter x length [mm]	16.5 x 120	28 x 115	29.5 x 117
Tube material	PP	PP	PP
Item no.	15115	—	15151

Adapter

for
bucket
13635



Bore diameter x length [mm]	17 x 79	29.5 x 72	29.5 x 78.5
Tubes per adapter / rotor	24 / 96	8 / 32	10 / 40
Centrifuging radius [mm]	194	187	193
Item no.	18605	18607	18606

Blood and urine tubes

										
Rated capacity (filling volume) [ml]	1.1–1.4	2.7–5	1.6–6	4–6	1.8–7	4–10	9.5–10	6–10	9–10	8
Diameter x length with closure [mm]	8 x 82	11 x 82–108	13 x 81–106	13 x 81–106	13 x 81–107	15 x 91–118	15 x 106	16 x 106–107	16 x 108	16 x 131
Tube material	PP	PP	PP	PET	PET	PP	PET	PET	PP	Glas
Item no.	—	—	—	—	—	—	—	—	—	—

Adapter

for
bucket
13635



Bore diameter x length [mm]	13.5 x 53	17 x 73	17.5 x 50	17.5 x 50
Tubes per adapter / rotor	42 / 168	36 / 144	32 / 128	18 / 72
Centrifuging radius [mm]	188	188	188	188
Item no.	18609	18608	18610	18610*

* Observe loading

Swing-out rotor 11650 / 11660

Bucket 13625 (1 set = 2 pcs.)
with plastic insert 13627

- Max. capacity: 4 x 600 ml blood bag systems
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 4,142 / 5,186 x g
- Max. speed for 4°C: 4.600 min⁻¹*
- Angle: 90°

*Max. speed for 4°C of rotor 11650: 4.500 min⁻¹



Tube



Capacity [ml]	450	500	600
Blood bag	Triple	Dual	Single
Item no.	—	—	—

Adapter

for bucket
13625



Blood bag systems per rotor	4
Nominal capacity [ml]	1,000
Centrifuging radius [mm]	210
Item no.	13627



Swing-out rotor 11650

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 4,643 x g
- Max. tube length, mid-bucket, without / with cap: 148 / 137 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C
- Angle: 90°

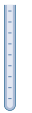
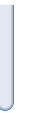


Swing-out rotor 11660

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 5,467 x g
- Max. tube length, mid-bucket, without / with cap: 153 / 137 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C
- Angle: 90°

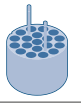


Tube									
Rated capacity (filling volume) [ml]	1.5	2	5	5	6 (5)	7	10	10	10
Diameter x length [mm]	10.7 x 42	10.7 x 42	12 x 75	17 x 60	12 x 100	12 x 100	16.1 x 81.1	16.1 x 81.1	16.1 x 81.1
Tube material	PP	PP	PS	PPCO	Glass	Glass	PF	PC	PPCO
Item no.	15008	15040	15060	—	15007	15027	15000	15010	15039

Adapter

for round bucket 13450



						
Bore diameter x length [mm]	11.1 x 38.5	12.8 x 52	17 x 52	12.8 x 74	16.5 x 55	17.5 x 55
Tubes per adapter / rotor	26 / 104	37 / 148	12 / 48	32 / 128	20 / 80	19 / 76
Centrifuging radius [mm]	181	180	185	182	183	183
Item no.	17653	17652	17211	17654	17655	17658

Tube								
Rated capacity (filling volume) [ml]	10	14	14	15 (13)	15	25	25	30 (26)
Diameter x length [mm]	16 x 100	17 x 100	17 x 100	17 x 110	16.5 x 120	25 x 90	24 x 100	24 x 100
Tube material	Glass	PS	PP	Glass	PP	PP	Glass	Glass
Item no.	15024	15020	15023	15022	15115	—	15025	15026

Adapter

for round bucket 13450



					
Bore diameter x length [mm]	17.5 x 55	17 x 78.5	17 x 78.5	25.5 x 70	25.5 x 77
Tubes per adapter / rotor	19 / 76	12 / 48	15 / 60	7 / 28	8 / 32
Centrifuging radius [mm]	183	187	187	175	185
Item no.	17658	17659	17660*	17662	17670

* Only possible without cap 17170

Swing-out rotor 11650

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 4,643 x g
- Max. tube length, mid-bucket, without / with cap: 148 / 137 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C
- Angle: 90°



Swing-out rotor 11660

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 5,467 x g
- Max. tube length, mid-bucket, without / with cap: 153 / 137 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C
- Angle: 90°



Tube

									
Rated capacity (filling volume) [ml]	30 (26)	30 (28)	30	30	50 (38)	50 (43)	50	50	50
Diameter x length [mm]	25.3 x 98	25.3 x 98	24 x 105	25 x 107	28.8 x 107	28.5 x 107	28.5 x 101.5	34 x 100	34 x 100
Tube material	PPCO	PC	Glass	PP	PPCO	PF	Stainless steel	Glass	Glass
Item no.	15032	15030	15033	—	15052	15051	13055	15045	15049

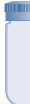
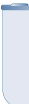
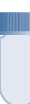
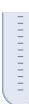
Adapter

for round bucket 13450



				
Bore diameter x length [mm]	25.5 x 77	25.5 x 70	29.5 x 77	35.5 x 77.5
Tubes per adapter / rotor	8 / 32	7 / 28	7 / 28	4 / 16
Centrifuging radius [mm]	185	175	185	185
Item no.	17670	17662	17676	17675

Tube

								
Rated capacity (filling volume) [ml]	50	50	50	85 (73)	85 (76)	94 (85)	94	100 (75)
Diameter x length [mm]	35 x 100	29 x 117	29 x 117	38 x 112	38 x 112	38 x 103	38 x 110	44 x 100
Tube material	Glass	PP	PP	PF	PPCO	Stainless steel	PC	Glass
Item no.	15056	—	15151	15080	15076	13085	15094	15078

Adapter

for round bucket 13450



						
Bore diameter x length [mm]	35.5 x 77.5	29.5 x 74	29.5 x 78.5	29.5 x 78	38.5 x 77	45.5 x 77
Tubes per adapter / rotor	4 / 16	5 / 20	5 / 20	7 / 28	3 / 12	2 / 8
Centrifuging radius [mm]	185	182	186	186	185	185
Item no.	17675	17678	17677	17649*	17685	17690**

* Only possible without cap 17170; ** Including rubber cushion 16051

Swing-out rotor 11650

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 4,643 x g
- Max. tube length, mid-bucket, without / with cap: 148 / 137 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C
- Angle: 90°



Swing-out rotor 11660

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 5,467 x g
- Max. tube length, mid-bucket, without / with cap: 153 / 137 mm
- Biosafe with cap 17170 
- Tmin at maximum speed: <4°C
- Angle: 90°



Tube										
Rated capacity (filling volume) [ml]	100	100	150	175	175	200 (168)	200	225	250 (232)	250 (232)
Diameter x length [mm]	44 x 100	45 x 100	51 x 99	61 x 118	62 x 139.2	56 x 112	61 x 130	61 x 137	61.4 x 122	61.4 x 122
Tube material	Glass	PC	PP	PP	PP	PPCO	PP	PP	PF	PPCO
Item no.	15100	15103	15125	—	15175	15202	15174	—	15247	15249
Adapter										
for round bucket 13450										
Bore diameter x length [mm]	45.5 x 77		51.5 x 77	61 x 100	62.5 x 110	57.5 x 77	62.5 x 110	61 x 100	62.5 x 77	
Tubes per adapter / rotor	2 / 8		1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	1 / 4	
Centrifuging radius [mm]	185		185	188	188	185	188	188	185	
Item no.	17690*		17692	17694	17693	17696	17693	17694	17698	

Tube							
Rated capacity (filling volume) [ml]	250	250	400	500	500	650	750
Diameter x length [mm]	61.4 x 125	61 x 145	85 x 118	85 x 135	95.5 x 147	100 x 111	100 x 127
Tube material	Stainless steel	PP	PPCO	PPCO	PP	PP	PPCO
Item no.	13255	—	15401	15501	—	13456	15917***

Adapter					
for round bucket 13450					
Bore diameter x length [mm]	62.5 x 77	62.5 x 110	86 x 107	96.3 x 110	101 x 102
Tubes per adapter / rotor	1 / 4	1 / 4	1 / 4	1 / 4	— / 4
Centrifuging radius [mm]	185	188	185	188	188
Item no.	17698	17693**	13654	17682**	—

* Including rubber cushion 16051; ** Only possible without cap 17170; *** Max. load 1,000 g at 4,800 rpm or 900 g at 5,100 rpm

Swing-out rotor 11650

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 4,700 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 4,643 x g
- Max. tube length, mid-bucket, without / with cap: 148 / 137 mm
- Biosafe with cap 17170
- Tmin at maximum speed: <4°C
- Angle: 90°



Swing-out rotor 11660

Round bucket 13450 (1 set = 2 pcs.)

- Max. capacity: 4 x 750 ml
- Max. speed (6-16S / 6-16KS): 4,200 / 5,100 rpm
- Max. RCF (6-16S / 6-16KS): 3,708 / 5,467 x g
- Max. tube length, mid-bucket, without / with cap: 153 / 137 mm
- Biosafe with cap 17170
- Tmin at maximum speed: <4°C
- Angle: 90°



Blood and urine tubes

										
Rated capacity (filling volume) [ml]	1.1–1.4	2.7–5	1.6–6	4–6	1.8–7	4–10	9.5–10	6–10	9–10	8
Diameter x length with closure [mm]	8 x 82	11 x 82–108	13 x 81–106	13 x 81–106	13 x 81–107	15 x 91–118	15 x 106	16 x 106–107	16 x 108	16 x 131
Tube material	PP	PP	PP	PET	PET	PP	PET	PET	PP	Glass
Item no.	–	–	–	–	–	–	–	–	–	–

Adapter

for round bucket 13450						
Bore diameter x length [mm]	12.8 x 52	13.8 x 54	16.5 x 55	17.5 x 55	17.5 x 55	17.5 x 55
Tubes per adapter / rotor	37 / 148	23 / 92	20 / 80	19 / 76	7 / 28	7 / 28
Centrifuging radius [mm]	180	182	183	183	183	183
Item no.	17652	17656	17655	17658	17658*	17658*



* Observe loading