

Sigma 2-7



Benchtop centrifuge
• Unrefrigerated



High performance in a new design



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.

The Sigma 2-7 scores with many new features. One highlight is the blue LED running indicator, which enables operators to see whether the device is still running – even at a distance. Other unique features are the ten program storage locations (unequaled in its class), the patented lid closing damper, and the optional programmable centrifuge wait and start times. This delayed start feature has been specifically developed for clinical in vitro diagnostics (IVD) using blood tubes. The necessary

clotting time can be preset on the device to simplify work processes. The low noise level and ergonomic operation make the device ideal for everyday use in the laboratory environment. The Sigma 2-7 combines high capacity (up to 4 x 100 ml) with exceptional flexibility. The maximum RCF of more than 2,500 x g is suitable for many application areas in clinical diagnostics, veterinary medicine, pharmacy, environmental analysis and industrial production, as well as universities and research facilities.

The performance specifications and accessories are primarily oriented to small to medium-size laboratories. In the area of clinical diagnostics, the Sigma 2-7 sets the standard with the capacity of up to 24 blood collection tubes 16 x 100 mm. The innovative six-fold bucket allows up to 50% more capacity per run to be achieved. That boosts throughput in the laboratory and enables faster patient diagnoses.

Top marks for functionality

Easy operation, convenience and maximum safety

The Sigma 2-7 is equipped with a well organised, clear display at a perfect viewing angle and with large buttons. The intuitive Spincontrol Basic control unit makes entry of operating parameters and programs simple. The centrifuge run time can be selected in seconds, and the LED run time indicator is readily visible at a distance.

The motorised lid lock, which closes automatically to eliminate extra effort, is a nice practical touch. The innovative electronics provide extremely high energy efficiency and low sensitivity to mains voltage fluctuations. Together with a powerful motor, this enables outstanding acceleration and braking times. With two sets of acceleration

and braking profiles, the Sigma 2-7 is also suitable for centrifuging sensitive cells requiring gentle run-up and run-down. With these features, the Sigma 2-7 sets standards for easy operation, convenience and safety.

The compact Sigma 2-7 (just 37.8 cm wide) saves space in the laboratory and is pleasantly quiet. The low noise level of less than 53 dB(A) at maximum speed with the swing-out rotor ensures a quiet work environment.

The Sigma 2-7 is also available as an IVD model.

Sigma 2-7

- High-performance small centrifuge
- Innovative LED running indicator, readily visible at a distance
- Speed range up to 4,000 rpm
- Maximum capacity: 4 x 100 ml / 30 x 15 ml
- Up to 24 blood collection tubes (16 x 100 mm) per run
- Clear and convenient Spincontrol Basic control unit
- User-configurable audible signal for keypress and end of run
- Ten programs
- Two acceleration and braking curves
- Compact device; fits on every lab bench
- Low height for easy loading and unloading
- Short acceleration and braking times
- Automatic imbalance monitoring
- Adjustable start delay (for clotting time, etc.)
- Low noise level
- Motorised lid lock
- Automatic lid opening
- Low temperature rise in continuous operation
- Automatic overspeed monitoring
- Durable, easy-care 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)





Rotors and accessories

Large selection and a multitude of applications

The Sigma 2-7 is available with numerous swing-out and fixed-angle rotors, various buckets and adapters. The extensive accessories accept tubes from 1.5 ml to 100 ml as well as microtiter plates and deep-well plates.

Special features include the intelligently designed four-fold and six-fold buckets for nearly all commonly used blood collection tubes. The Sigma 2-7 can hold up to 24 blood tubes (16 x 100 mm) in the swing-out rotor, setting a new standard for compact laboratory centrifuges. The innovative bucket design simplifies working with different tube sizes by minimising the need to exchange buckets and adapters. That makes work processes more convenient and helps to reduce operating costs.

Another special feature is the swing-out rotor for microtiter plates. Up to six microtiter plates per run can be centrifuged with RCF exceeding 2,100 x g. These performance specifications and versatility are otherwise only available with larger laboratory centrifuges.

The portfolio is rounded out by general-purpose round buckets with hermetically sealable caps, making them suitable for use with sensitive specimens.

Another unique feature is that custom accessories can be produced 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 7

Swing-out rotor 11071

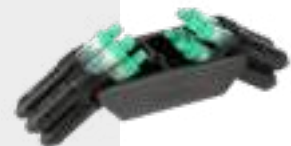
- Max. capacity: 4 x 100 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,540 x g
- Angle: 90°



▶ p. 7

Swing-out rotor 11037

- Max. capacity: 8 x 15 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,379 x g
- Angle: 90°



▶ p. 11

MTP swing-out rotor 11123

- Max. capacity: 6 microtiter plates
- Max. speed: 4,000 rpm
- Max. RCF: 2,111 x g
- Angle: 90°



▶ p. 12

Swing-out rotors starting on page 13

Fixed-angle rotor 12072

- Max. capacity: 20 x 15 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,486 x g
- Angle: 33°

▶ p. 13



Fixed-angle rotor 12073

- Max. capacity: 30 x 15 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,486 x g
- Angle: 33° (both rows)

▶ p. 14






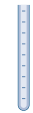






Swing-out rotor 11071

Round bucket 13299

- Max. capacity: 4 x 100 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,540 x g
- Max. tube length in middle of bucket with / without cap: 126 / 117 mm
- Hermetically closable with cap 17299
- Angle: 90°







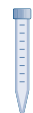





| Tube |  |  |  |  |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Rated capacity (filling volume) [ml] | 1.5 | 2 | 5 | 5 | 6 (5) | 7 | 10 | 10 | 10 | 10 |
| Diameter x length [mm] | 10.7 x 42 | 10.7 x 42 | 17 x 60 | 12 x 75 | 12 x 100 | 12 x 100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

Adapter

for round bucket 13299



| | | | | | | |
|-----------------------------|-----------|---------|-----------|--|-----------|--|
| Bore diameter x length [mm] | 11.1 x 35 | 17 x 52 | 13.5 x 52 | | 16.5 x 56 | |
| Tubes per adapter / rotor | 4 / 16 | 3 / 12 | 5 / 20 | | 4 / 16 | |
| Centrifuging radius [mm] | 137 | 139 | 139 | | 138 | |
| Item no. | 14301 | 14309 | 14302 | | 14303 | |

| Tube |  |  |  |  |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|
| Rated capacity (filling volume) [ml] | 10 | 14 | 14 | 15 (13) | 15 | 25 | 25 | 25 | 30 (26) | 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 | 25.3 x 98 |
| Tube material | Glass | PS | PP | Glass | PP | PP | Glass | Glass | PF | PPCO |
| Item no. | 15024 | 15020 | 15023 | 15022 | 15115 | – | 15025 | 15026 | 15029 | 15032 |

Adapter

for round bucket 13299












| | | | | | | | |
|-----------------------------|-----------|-------------|--|---------|-----------|-----------|--|
| Bore diameter x length [mm] | 16.5 x 56 | 17.5 x 67.5 | | 17 x 76 | 25.5 x 56 | 25.5 x 58 | |
| Tubes per adapter / rotor | 4 / 16 | 3 / 12 | | 2 / 8 | 1 / 4 | 1 / 4 | |
| Centrifuging radius [mm] | 138 | 140 | | 126 | 138 | 140 | |
| Item no. | 14303 | 14307 | | 14300* | 14308 | 14304 | |







Swing-out rotor 11071





Round bucket 13299



- Max. capacity: 4 x 100 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,540 x g
- Max. tube length in middle of bucket with / without cap: 126 / 117 mm
- Hermetically closable with cap 17299
- Angle: 90°



| Tube |  |  |  |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|---|---|---|---|---|
| Rated capacity (filling volume) [ml] | 30 (28) | 30 | 30 | 50 | 50 | 50 | 50 | 50 | 50 |
| Diameter x length [mm] | 25.3 x 98 | 24 x 105 | 25 x 107 | 34 x 100 | 34 x 100 | 35 x 100 | 34 x 100 | 28 x 115 | 29 x 117 |
| Tube material | PC | Glass | PP | Glass | Glass | Glass | PC | PP | PP |
| Item no. | 15030 | 15033 | – | 15045 | 15050 | 15056 | 15049 | – | 15151 |

| Adapter |  |  |  |  |  |  | |
|-----------------------------|---|---|---|---|---|---|-----------|
| for round bucket 13299 | | | | | | | |
| Bore diameter x length [mm] | | 25.5 x 58 | 25.5 x 56 | | 35.5 x 58 | 29.5 x 67 | 29.6 x 90 |
| Tubes per adapter / rotor | | 1 / 4 | 1 / 4 | | 1 / 4 | 1 / 4 | 1 / 4 |
| Centrifuging radius [mm] | | 140 | 138 | | 140 | 139 | 142 |
| Item no. | | 14304 | 14308 | | 14305 | 14310* | 14299 |

| Tube |  |  |  |  |
|--------------------------------------|---|---|---|---|
| Rated capacity (filling volume) [ml] | 100 (75) | 100 (90) | 100 | 100 |
| Diameter x length [mm] | 44 x 100 | 44 x 100 | 44 x 100 | 45 x 100 |
| Tube material | Glass | Glass | Glass | PC |
| Item no. | 15078 | 15106 | 15100 | 15103 |

| Adapter |  |  |
|-----------------------------|---|---|
| for round bucket 13299 | | |
| Bore diameter x length [mm] | | 45.1 x 98.5 |
| Tubes per adapter / rotor | | 1 / 4 |
| Centrifuging radius [mm] | | 139 |
| Item no. | | 16051 |


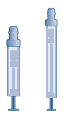
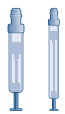

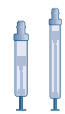



Swing-out rotor 11071

Round bucket 13299

- Max. capacity: 4 x 100 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,540 x g
- Max. tube length in middle of bucket with / without cap: 126 / 117 mm
- Hermetically closable with cap 17299
- Angle: 90°







Blood and urine tubes

| |  |  |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|---|--|---|---|
| Rated capacity (filling volume) [ml] | 1.1 – 1.4 | 2.7 – 5 | 1.6 – 6 | 1.8 – 7 | 4 – 8.5 | 6 – 10 | 10 | 8 – 9 |
| Diameter x length with lid [mm] | 8 x 82 | 11 x 82–108 | 13 x 81–106 | 13 x 81–107 | 15 x 91–108 | 16 x 107 | 15 x 118 | 16 x 108 |
| Tube material | PP | PP | PP | PP | PP | PP | PP | PP |
| Item no. | – | – | – | – | – | – | – | – |

Adapter

for round bucket 13299



| |  |  |  |  |
|-----------------------------|---|---|---|---|
| Bore diameter x length [mm] | 13.5 x 52 | 16.5 x 56 | 16.5 x 56 | 17.5 x 67.5 |
| Tubes per adapter / rotor | 5 / 20 | 4 / 16 | 4 / 16 | 3 / 12 |
| Centrifuging radius [mm] | 139 | 138 | 138 | 140 |
| Item no. | 14302 | 14303 | 14303* | 14307 |











Swing-out rotor 11071

Bucket 13296

- Max. capacity: 24 x 15 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,379 x g
- Angle: 90°



| Tube |  |  |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|---|---|---|---|
| Rated capacity (filling volume) [ml] | 10 | 10 | 10 | 10 | 10 | 14 | 14 | 15 (13) |
| Diameter x length [mm] | 16 x 100 | 16 x 100 | 16.1 x 81.1 | 16.1 x 81.1 | 16.1 x 81.1 | 17 x 100 | 17 x 100 | 17 x 110 |
| Tube material | Glass | Glass | PF | PC | PPCO | PS | PP | Glass |
| Item no. | 15015 | 15024 | 15000 | 15010 | 15039 | 15020 | 15023 | 15022 |











Adapter

for
bucket
13296



| | | |
|-----------------------------|-------------|-------------|
| Bore diameter x length [mm] | 17.5 x 64.5 | 17.5 x 67.5 |
| Tubes per adapter / rotor | 6 / 24 | 6 / 24 |
| Centrifuging radius [mm] | 130 | 133 |
| Item no. | 16020 | – |

Blood and urine tubes

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

Adapter

for
bucket
13296



| | | | |
|-----------------------------|-------------|-------------|-------------|
| Bore diameter x length [mm] | 17.5 x 67.5 | 17.5 x 67.5 | 17.5 x 67.5 |
| Tubes per adapter / rotor | 6 / 24 | 4 / 16* | 2 / 8* |
| Centrifuging radius [mm] | 133 | 133 | 133 |
| Item no. | – | – | – |

* Observe loading







Swing-out rotor 11037

Bucket 13035

- Max. capacity: 8 x 15 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,379 x g
- Max. tube length in middle of bucket: 120 mm
- Angle: 90°



Tube

| | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|----------|----------|------------|
| |  |  |  |  |  |  | | | |
| Rated capacity (filling volume) [ml] | 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 |











Adapter

for bucket
13035



| | | | | | | | | |
|-----------------------------|-----------|--|--|--|--|--|--|--|
| Bore diameter x length [mm] | 17.5 x 86 | | | | | | | |
| Tubes per adapter / rotor | 4 / 8 | | | | | | | |
| Centrifuging radius [mm] | 133 | | | | | | | |
| Item no. | - | | | | | | | |


Blood and urine tubes

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

Adapter

for
bucket
13035



| | | | | | | | | | |
|-----------------------------|-----------|--|--|--|---|-----------|--|--|---|
| Bore diameter x length [mm] | 17.5 x 86 | | | |  | 17.5 x 86 | | |  |
| Tubes per adapter / rotor | 4 / 8 | | | | | 4 / 8 | | | 2 / 4** |
| Centrifuging radius [mm] | 133 | | | | | 133 | | | 133 |
| Item no. | - | | | | | - | | | - |

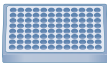


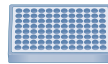
* Use adapter 13073 for use with 15 x 91 mm tubes; ** Observe loading

MTP swing-out rotor 11123

with 1 set (quantity 2) rectangular buckets 13223

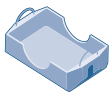
- Max. plate height: 50 mm
- Max. speed: 4,000 rpm
- Max. RCF: 2,111 x g
- Max. load per carrier: 346 g
- Angle: 90°



| Tube |  |  |  |  |
|----------------|---|---|---|---|
| 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
rectangular
bucket
13223



| | | | | |
|-----------------------------|-----|---|---|---|
| Bore diameter x length [mm] | - | | | |
| Plates per rotor | 6 | 4 | 2 | 4 |
| Centrifuging radius [mm] | 118 | | | |
| Item no. | - | | | |



More on the Web
View our video to learn
more about the Sigma 2-7.
Scan the QR code or go
directly to the web page:

[www.sigma-zentrifugen.de/
en/sigma-2-7](http://www.sigma-zentrifugen.de/en/sigma-2-7)












Fixed-angle rotor 12072

with 20 buckets 13011

- Max. capacity: 20 x 15 ml
- Max. speed: 4,000 rpm
- Max. RCF: 2,486 x g
- Angle: 33°






| Tube |  |  |  |  |  |  |  |  |  | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|------------|
| Rated capacity (filling volume) [ml] | 5 | 6 (5) | 10 | 10 | 10 | 10 | 14 | 14 | 15 (13) | 15 |
| Diameter x length [mm] | 12 x 75 | 12 x 100 | 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 | PS | Glass | PC | PPCO | Glass | Glass | PS | PP | Glass | PP |
| Item no. | 15060 | 15007 | 15010 | 15039 | 15015 | 15024 | 15020 | 15023 | 15022 | 15115 |










Adapter

for fixed-angle rotor 12072



| Adapter |  |  |  | | | | | | | |
|-----------------------------|---|---|---|-------------|--|--|--|--|--|--|
| Bore diameter x length [mm] | 13.5 x 69 | 12.5 x 85 | 17.9 x 77.8 | 17.9 x 87.8 | | | | | | |
| Tubes per adapter / rotor | 1 / 20 | 1 / 20 | 1 / 20 | - / 20 | | | | | | |
| Centrifuging radius [mm] | 117 | 133 | 129 | 139 | | | | | | |
| Item no. | 13071 | 13072 | 13073 | - | | | | | | |





Blood and urine tubes

| Blood and urine tubes |  |  |  |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|---|--|---|---|---|
| Rated capacity (filling volume) [ml] | 1.1–1.4 | 2.7–3.1 | 1.6–5.3 | 2.7–5 | 7.5–8.5 | 4.9–6 | 9.5–10 | 6–10 | 9–10 |
| Diameter x length with lid [mm] | 8 x 82 | 11 x 82 | 13 x 81–91 | 11 x 82–108 | 15 x 108 | 13 x 106–107 | 15 x 106–118 | 16 x 106–107 | 16 x 108 |
| Tube material | PP | PP | PP | PP | PP | PP | PP | PP | PP |
| Item no. | - | - | - | - | - | - | - | - | - |

Adapter

for fixed-angle rotor 12072



| Adapter |  |  |  | | | | | |  |
|-----------------------------|---|---|---|-------------|--|--|--|--|---|
| Bore diameter x length [mm] | 13.8 x 60 | 12.5 x 85 | 17.9 x 77.8 | 17.9 x 87.8 | | | | | 17.9 x 77.8 |
| Tubes per adapter / rotor | 1 / 20 | 1 / 20 | 1 / 20 | - / 20 | | | | | 1 / 20 |
| Centrifuging radius [mm] | 108 | 133 | 129 | 139 | | | | | 129 |
| Item no. | 13070 | 13072 | 13073 | - | | | | | 13073 |










Fixed-angle rotor 12073

with 30 buckets 13011

- Max. capacity: 30 x 15 ml
- Max. speed: 4,000 rpm
- Max. RCF outer row: 2.486 x g
- Max. RCF inner row: 2.111 x g
- Angle: 33° (both rows)






Tube

| |  |  |  |  |  |  |  |  |  | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|------------|
| Rated capacity (filling volume) [ml] | 5 | 6 (5) | 10 | 10 | 10 | 10 | 14 | 14 | 15 (13) | 15 |
| Diameter x length [mm] | 12 x 75 | 12 x 100 | 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 | PS | Glass | PC | PPCO | Glass | Glass | PS | PP | Glass | PP |
| Item no. | 15060 | 15007 | 15010 | 15039 | 15015 | 15024 | 15020 | 15023 | 15022 | 15115 |










Adapter

for fixed-angle rotor 12073



| |  |  |  | | | | | | | |
|---------------------------------------|---|---|---|-------------|--|--|--|--|--|--|
| Bore diameter x length [mm] | 13.5 x 69 | 12.5 x 85 | 17.9 x 77.8 | 17.9 x 87.8 | | | | | | |
| Tubes per adapter / rotor | 1 / 30 | 1 / 30 | 1 / 30 | - / 30 | | | | | | |
| Centrifuging radius (outer/inner)[mm] | 117 / 96 | 133 / 112 | 129 / 108 | 139 / 118 | | | | | | |
| Item no. | 13071 | 13072 | 13073 | - | | | | | | |





Blood and urine tubes

| |  |  |  |  |  |  |  |  |  |
|--------------------------------------|---|---|---|---|---|---|---|---|---|
| Rated capacity (filling volume) [ml] | 1.1–1.4 | 2.7–3.1 | 1.6–5.3 | 2.7–5 | 7.5–8.5 | 4.9–6 | 9.5–10 | 6–10 | 9–10 |
| Diameter x length with lid [mm] | 8 x 82 | 11 x 82 | 13 x 81–91 | 11 x 82–108 | 15 x 108 | 13 x 106–107 | 15 x 106–118 | 16 x 106–107 | 16 x 108 |
| Tube material | PP | PP | PP | PP | PP | PP | PP | PP | PP |
| Item no. | - | - | - | - | - | - | - | - | - |

Adapter

for fixed-angle rotor 12073



| |  |  |  | | | | | |  |
|---------------------------------------|---|---|---|-------------|--|--|--|--|---|
| Bore diameter x length [mm] | 13.8 x 60 | 12.5 x 85 | 17.9 x 77.8 | 17.9 x 87.8 | | | | | 17.9 x 77.8 |
| Tubes per adapter / rotor | 1 / 30 | 1 / 30 | 1 / 30 | - / 30 | | | | | 1 / 30 |
| Centrifuging radius (outer/inner)[mm] | 108 / 87 | 133 / 112 | 129 / 108 | 139 / 118 | | | | | 129 / 108 |
| Item no. | 13070 | 13072 | 13073 | - | | | | | 13073 |

Material properties

Guideline for optimal tube selection

Due to the many factors that influence material properties, this overview is only intended as a general recommendation. There is no guarantee of the stated properties. Users should therefore carefully

test materials for suitability under specific application conditions. Tubes should be discarded as soon as they show any sign of material fatigue.

| | Polycarbonate (PC) | Polyvinyl fluoride (PF) | Polystyrene (PS) | Polyethylene (PE) | Polypropylene (PP) |
|---|--|---|------------------|-------------------|--------------------|
| Autoclave resistant | Yes | Yes | No | No | Yes |
| Elasticity | Not elastic | Not elastic | Not elastic | Good | Not elastic |
| Transparency | Transparent | Translucent | Transparent | Translucent | Translucent |
| Recommended temperature range [°C] | | | | | |
| Embrittlement temperature [°C] | ≤ -20 | ≤ -20 | ≤ -10 | ≤ -20 | ≤ -20 |
| Max. working temperature [°C] | ≥ +125 | ≥ +125 | ≥ +80 | ≥ +90 | ≥ +125 |
| Microwave resistant | Moderate | Yes | No | Limited | Moderate |
| Chemical resistance | | | | | |
| Weak acids | Yes | Yes | Yes | Yes | Yes |
| Strong acids | No | Yes | Limited | Yes | Yes |
| Alcohols and alkalis | No | Yes | Yes | Yes | Yes |
| Salts | Limited | Yes | Limited | Yes | Yes |
| Note: | Frequent autoclaving leads to loss of strength | Tubes should be completely filled and closed for use at maximum RCF | | | |

| | PP copolymer (PPCO) | Glass | High-speed glass (HS glass) | Stainless steel |
|---|---------------------|--|--|-----------------|
| Autoclave resistant | Yes | Yes | Yes | Yes |
| Elasticity | Moderate | Not elastic | Not elastic | Not elastic |
| Transparency | Translucent | Transparent | Transparent | Opaque |
| Recommended temperature range [°C] | | | | |
| Embrittlement temperature [°C] | ≤ -20 | ≤ -20 | ≤ -20 | ≤ -20 |
| Max. working temperature [°C] | ≥ +125 | ≥ +200 | ≥ +200 | ≥ +200 |
| Microwave resistant | Moderate | Yes | Yes | No |
| Chemical resistance | | | | |
| Weak acids | Yes | Yes | Yes | Limited |
| Strong acids | Yes | Yes | Yes | Limited |
| Alcohols and alkalis | Yes | Yes | Yes | Yes |
| Salts | Yes | Yes | Yes | Limited |
| Note: | | Max. RCF for all glass tubes approx. 4,000 x g | High-speed glass for maximum RCF of 13,100 x g | |

Spincontrol Basic

Advanced control, intuitive operation

Spincontrol Basic is a programmable and user-friendly control unit with a clearly organised and intuitive user interface that simplifies everyday tasks in the lab. Operating parameters are entered using centrally arranged arrow buttons, and parameter settings can be changed during operation. Another clever feature is the optional adjustable automatic lid opening at the end of the run.

Spincontrol Basic can hold up to ten programs – a unique feature in its class. These user-modifiable programs can store standard routines for retrieval at any time.

That makes the control unit ideal for institutions where specimens with different operating parameters must be centrifuged. Quick access to stored programs facilitates enhanced process reliability and quality of analytical results.

Two pairs of acceleration and braking curves help to optimise separation processes. Short or pulsed runs are also possible by pressing and holding the Start/Stop button.

| | |
|--|----------------|
| Display | LCD |
| Speed/RCF display | + |
| Timer (s; h:min) | 10 – 99:59 |
| Short run, Continuous run | +, + |
| Time increment [s] | 1 |
| Speed increment [rpm] | 100 |
| RCF increment [x g] | 10 |
| Programs | 10 |
| Acceleration curves | 2 (fast, soft) |
| Braking curves | 2 (fast, soft) |
| Automatic lid opening at end of run, switchable | +, + |
| Start delay (clotting time) adjustable, switchable | +, + |
| Audible signal, switchable | +, + |
| Visual standstill indication | + |
| Lockable controller | + |
| Microprocessor control | + |






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

Premium quality

Made in Germany

The Sigma 2-7 centrifuge meets the highest technical requirements and laboratory standards. Developed and produced at our facility in Osterode, Germany, it is a high-performance, durable and energy-efficient quality product and conforms 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 2-7

| | |
|---|-----------------|
| Max. capacity [ml] | |
| Swing-out rotor | 4 x 100 |
| Fixed-angle rotor | 30 x 15 |
| Max. RCF | 2,540 |
| Maximum speed [rpm] | 4,000 |
| Minimum speed [rpm] | 100 |
| Noise level at maximum speed (approximate) [dB(A)] | |
| Fixed-angle rotor 12073 | 54 |
| Swing-out rotor 11071 with buckets 13299 and caps | 53 |
| Max. acceleration time [s] | |
| Fixed-angle rotor 12073 | 18 |
| Swing-out rotor 11071 with buckets 13299 and caps | 13 |
| Max. braking time [s] | |
| Fixed-angle rotor 12073 | 14 |
| Swing-out rotor 11071 with buckets 13299 and caps | 10 |
| Power consumption [W] | 210 |
| Height x width x depth [mm] | 293 x 378 x 535 |
| Height with open lid [mm] | 643 |
| Weight without rotor [kg] | 23 |

Sigma Service

For maintenance and repairs please contact our Service department at www.sigma-zentrifugen.de/en/service

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 package for:

Unrefrigerated centrifuges (item no. 17710)
 Refrigerated centrifuges (item no. 17711)
 An additional rotor (item no. 17712)

Sigma 2-7 centrifuge
 100–240 V, 50/60 Hz (item no. 10226)

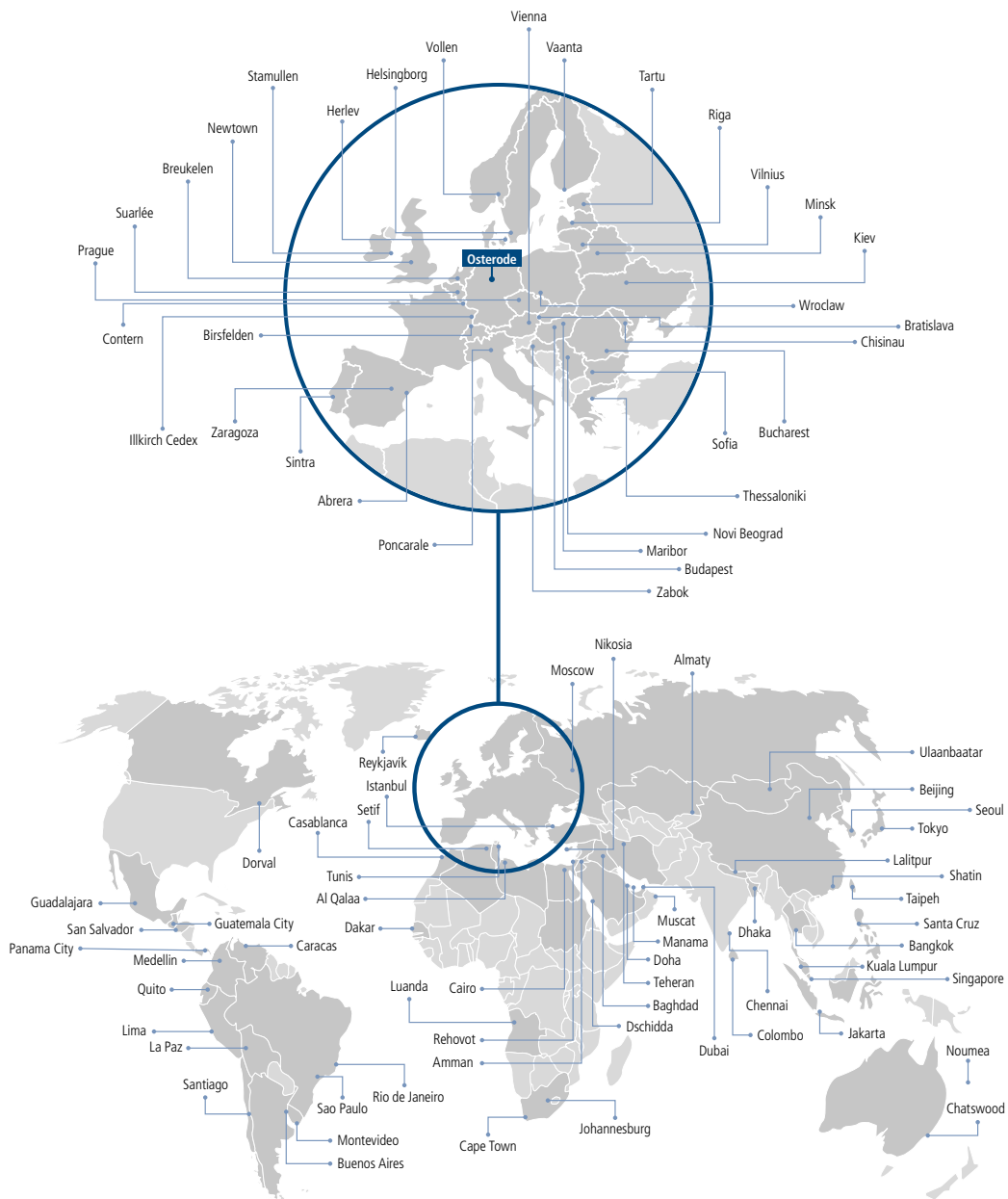
Sigma 2-7 centrifuge, IVD version
 100–240 V, 50/60 Hz (item no. 10227)



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/vertriebspartner



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