

HEPES



ROTANTA 460/460 R
Benchtop, Underbench and Floorstanding Centrifuges
classic/cooled

ROTANTA 460/460 R

Efficient, results-oriented working processes are top priority in both research and routine laboratories. Advanced laboratory technology makes a significant contribution to shortening processing times.

For decades, ROTANTA centrifuges from Hettich have been distinguished by the highest quality. Excellent performance and an extensive range of accessories guarantee fast, trouble-free operation in daily laboratory use.

With a maximum capacity of 3 litres per run, they are proving themselves in clinics and laboratory centres, as well as in Life Science R & D departments.

For sample processing in clinical chemistry, a wide selection of adapters are available to accommodate the most varied types of tubes. Biotechnology, molecular biology and the pharmaceutical industry value the ROTANTA 460 especially for its autoclavable and aerosoltight accessories.

These versatile benchtop centrifuges feature a filter plate rotor with an RCF of 6,446 for purifying DNA/RNA.

Model variants of the refrigerated ROTANTA 460 R

- with connection for nitrogen flushing (Cat. No. **5660-20**),
- heating/cooling version up to 90 °C (Cat. No. **5660-50**), or
- heating/cooling version with connection for nitrogen flushing (Cat. No. **5660-70**), on request.



PERFORMANCE

- High speed with angle rotors:
 - 24,400 RCF with a max. capacity of 30 x 1.5/2.0 ml
 - 18,038 RCF with a max. capacity of 6 x 94 ml
 - 14,025 RCF with a max. capacity of 6 x 250 ml
- High capacity with swing-out rotors:
 - 4 x 750 ml at max. 4,779 RCF
 - 24 microtitre plates / 4 filter plates at max. 4,211 RCF or
 - 12 microtitre plates / 2 filter plates at max. 6,446 RCF
 - 196 blood collection tubes at max. 2,906 RCF

USER-FRIENDLINESS

- Powered lid locking
- Ergonomic control and information panel
- Easy rotor changing
- 98 program storage spaces
- Protection against unauthorized operation / modification of stored programs
- Switch of centrifuge run time from “at start” (commencement at start) to “at speed” (start when nominal speed is attained)
- Special braking ramps for centrifuging blood bags in the refrigerated models
- Program interlocking to combine several centrifugation runs (**optional**)

COOLING (ROTANTA 460 R, 460 RC and 460 RF)

- Infinitely variable adjustment from -20 °C to +40 °C (or -4 °F to +104 °F)
- Stand-by cooling

SAFETY

- Imbalance switch-off
- Automatic rotor recognition
- Emergency lid lock release
- Lid dropping protection
- Lid locking and holding during rotor run
- Motor overheating protection
- Chamber overheating protection (ROTANTA 460 R, 460 RC and 460 RF centrifuges)



ROTANTA 460 R
benchtop centrifuge,
cooled,

Cat. No. 5660



ROTANTA 460
benchtop centrifuge

Cat. No. 5650

OPERATION AND CONTROL


With the convenient C control panel, even the most challenging centrifugation programs can easily be keyed in, stored and accessed as required.




ROTANTA 460 R, 460 RC and 460 RF control panel (C control panel)

DIGITAL DISPLAY AND CONTROL PANEL

KEYBOARD

| | |
|---|---|
| START | Start centrifugation run / short centrifuging runs / save entries, changes and programs |
|  | Start pre-cooling program PREC |
| STOP OPEN | Manually end centrifugation run / Open lid |

PARAMETER INPUT

| | |
|---|--|
| PROG | Input / recall program number 98 programs can be stored |
| T/°C | Input temperature in increments of 1 from -20 °C to +40 °C or -4 °F to +104 °F (with cooled centrifuges) |
|  | Input of the run-up time in ramps 1 – 9 or in min : sec Input of the run-down time in ramps R 1 – 9 or B 1 – 9 or in min : sec Input of a brake force cut-off speed Also unbraked run-down (ramp 0) can be selected. |
| RCF | Input relative centrifugal force (RCF) in increments of 1 Enter centrifuging radius (RAD) in mm first. |
| RPM | Input speed in increments of 10 |
| TIME | Input length of centrifugation (max. 99 h : 59 min : 59 sec) or continuous operation |



ROTANTA 460 RC
underbench centrifuge,
cooled

Cat. No. 5670


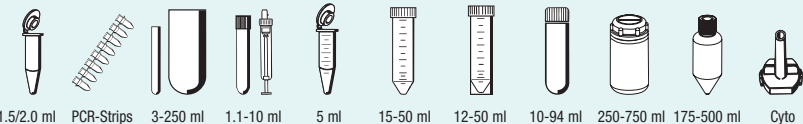
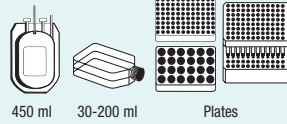

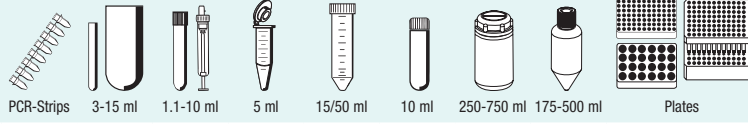

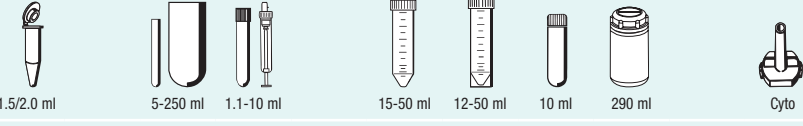

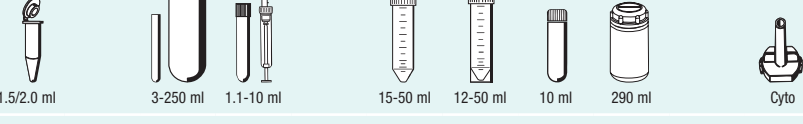

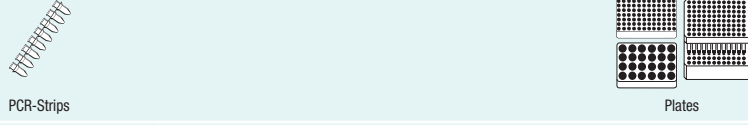



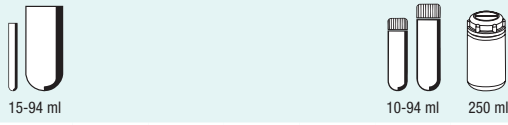





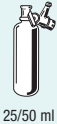

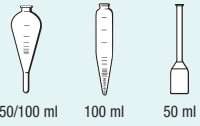




ROTANTA 460 RF
floorstanding centrifuge,
cooled

Cat. No. 5675

ROTORS AND ACCESSORIES

Quick overview of rotors and suitable accessories. The figures highlighted under the arrows refer to the pages where technical and ordering details are listed.

| | |
|---|--|
| <p>some accessories with bio-containment⁵⁾</p>  <p>Swing-out rotor, 4-place $\nabla 90^\circ$ $n = 4,600 \text{ min}^{-1}$ max. RCF 5,063 Cat. No. 5699</p> |  <p>1.5/2.0 ml PCR-Strips 3-250 ml 1.1-10 ml 5 ml 15-50 ml 12-50 ml 10-94 ml 250-750 ml 175-500 ml Cyto</p>  <p>450 ml 30-200 ml Plates</p> <p>→ Page 5-14</p> |
| <p>accessories with bio-containment⁵⁾</p>  <p>Swing-out rotor, 4-place $\nabla 90^\circ$ $n = 3,800 \text{ min}^{-1}$ max. RCF 3,196 Cat. No. 5654</p> |  <p>PCR-Strips 3-15 ml 1.1-10 ml 5 ml 15/50 ml 10 ml 250-750 ml 175-500 ml Plates</p> <p>→ Page 15-16</p> |
| <p>some accessories with bio-containment⁵⁾</p>  <p>Swing-out rotor, 4-place $\nabla 90^\circ$ $n = 4,000 \text{ min}^{-1}$ max. RCF 3,095 Bestell-Nr. 5694</p> |  <p>1.5/2.0 ml 5-250 ml 1.1-10 ml 15-50 ml 12-50 ml 10 ml 290 ml Cyto</p> <p>→ Page 17-19</p> |
| <p>some accessories with bio-containment⁵⁾</p>  <p>Swing-out rotor, 6-place $\nabla 90^\circ$ $n = 4,000 \text{ min}^{-1}$ max. RCF 3,631 Bestell-Nr. 4446</p> |  <p>1.5/2.0 ml 3-250 ml 1.1-10 ml 15-50 ml 12-50 ml 10 ml 290 ml Cyto</p> <p>→ Page 20-22</p> |
| <p>accessories with bio-containment⁵⁾</p>  <p>Swing-out rotor, 2-place $\nabla 90^\circ$ $n = 5,900/6,200 \text{ min}^{-1}$ max. RCF 5,838/6,446 Cat. No. 5622</p> |  <p>PCR-Strips Plates</p> <p>→ Page 23</p> |
| <p>lid with bio-containment⁵⁾</p>  <p>Angle rotor, 30-place $\nabla 45^\circ$ $n = 15,000 \text{ min}^{-1}$ max. RCF 24,400 Cat. No. 4489-A</p> |  <p>0.2-2.0 ml</p> <p>→ Page 24</p> |
| <p>lid with bio-containment⁵⁾</p>  <p>Angle rotor, 6-place $\nabla 25^\circ$ $n = 8,500/9,500 \text{ min}^{-1}$ max. RCF 11,228/14,025 Cat. No. 5645</p> |  <p>15-94 ml 10-94 ml 250 ml</p> <p>→ Page 24</p> |
| <p>lid with bio-containment⁵⁾</p>  <p>Angle rotor, 6-place $\nabla 45^\circ$ $n = 11,500 \text{ min}^{-1}$ max. RCF 18,038 Cat. No. 5615</p> |  <p>1.5/2.0 ml 15-94 ml 7.5-10 ml 5 ml 15/50 ml 10-94 ml</p> <p>→ Page 25</p> |
| <p>lid with bio-containment⁵⁾</p>  <p>Angle rotor, 14-place $\nabla 36^\circ$ $n = 10,000 \text{ min}^{-1}$ max. RCF 17,441 Cat. No. 5655</p> |  <p>15/25 ml 7.5-10 ml 15/50 ml 30 ml</p> <p>→ Page 26</p> |
|  <p>Angle rotor, 6-place, for Schlenk tubes $\nabla 45^\circ$ $n = 2,000 \text{ min}^{-1}$ max. RCF 805 Cat. No. 5616</p> |  <p>25/50 ml</p> <p>→ Page 26</p> |
|  <p>Swing-out rotor, 4-place, for ASTM tubes $\nabla 90^\circ$ $n = 2,000 \text{ min}^{-1}$ max. RCF 984 Cat. No. 4474</p> |  <p>50/100 ml 100 ml 50 ml</p> <p>→ Page 27</p> |
|  <p>Swing-out rotor, 6-place, for chrome bath tubes $\nabla 90^\circ$ $n = 2,000 \text{ min}^{-1}$ max. RCF 917 Cat. No. 4619</p> |  <p>30 ml</p> <p>→ Page 27</p> |

Additional tubes e.g. stool tubes or spin columns on request.

ROTORS AND ACCESSORIES

Swing-out rotor, 4-place



±90°

n = 4,600 min⁻¹
max. RCF 5,063

illustrated with carriers 5625-A
and lids 5627
with bio-containment⁵⁾

Cat. No. (without carriers) **5699**

| | | | | | | | | | | | | | | |
|---|---------------|-------------|---------|-------------|---------|--------------------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|--------------------------|-------------|-------------|
| capacity in ml | 1.5 | 2.0 | 3 | 4 | 4 | 5 | 6 | 7 | 10 | 15 | 25 | 50 | 75 | 94 |
| Ø x L in mm | 11 x 38 | | 10 x 60 | 10 x 88 | 12 x 60 | 12 x 75 | 12 x 82 | 12 x 100 | 17 x 70 | 17 x 100 | 24 x 100 | 34 x 100 | 35 x 105 | 38 x 102 |
| Cat. No. | 2078 | 0536 | - | | | 0553²⁾ | 0501²⁾ | 0578²⁾ | 2079 | 0518²⁾ | 0519²⁾ | 0521²⁾ | 0548 | 0549 |
| lid with bio-containment ⁵⁾ Cat. No. 5627 | | | | | | | | | | | | | | |
| carrier Cat. No. 5625-A | | | | | | | | | | | | | | |
| Cat. No. | 4730 | | | 4732 | | | | 4733 | | 4734 | 4735 | 4736 | | |
| boring Ø x L in mm | 11 x 84 | | | 13.5 x 84 | | | | 17.5 x 84 | | 26.5 x 84 | 36 x 80 | 42 x 80 | | |
| tubes per rotor | 224 | | 120 | | 80 | | | | 68 | | 24 | 12 | | |
| max. RCF ²⁾ upper/lower | 3,572 / 4,637 | | | 4,637 | | | | | | | | 4,495 | | |
| radius in mm upper/lower | 151 / 196 | | | 196 | | | | | | | | 190 | | |
| run-up in sec | 90 | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | + 4 | | | | | | | | | | | | | |

| | | | | | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------|-------------|-------------|-------------|---------|---------|---------|----------|
| capacity in ml | 100 | 100 | 250 | 1.1–1.4 | 2.6–3.4 | 2.7–3 | 4–5.5 | 4.5–5 | 4.9 | 7.5–8.5 | 9–10 | 10 |
| Ø x L in mm | 44 x 100 | 40 x 115 | 65 x 115 | 8 x 66 | 13 x 65 | 11 x 66 | 15 x 75 | 11 x 92 | 13 x 90 | 15 x 92 | 16 x 92 | 15 x 102 |
| Cat. No. | 0526²⁾ | 0523²⁾ | 0530²⁾ | blood collection/urine tubes | | | | | | | | |
| lid with bio-containment ⁵⁾ Cat. No. 5627 | | | | | | | | | | | | |
| carrier Cat. No. 5625-A | | | | | | | | | | | | |
| Cat. No. | 4737 | 4736 | 4738 | 4730 | 4732 | 4733 | 4732 | 4733 | | | | |
| boring Ø x L in mm | 46 x 84 | 42 x 80 | 66 x 80 | 11 x 84 | 13.5 x 84 | 17.5 x 84 | 13.5 x 84 | 17.5 x 84 | | | | |
| tubes per rotor | 8 | 12 | 4 | 120 | 80 | 68 | 80 | 68 | | | | |
| max. RCF ²⁾ | 4,637 | 4,495 | | 4,637 | | | | | | | | |
| radius in mm | 196 | 190 | | 196 | | | | | | | | |
| run-up in sec | 90 | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | |
| temperature in °C ¹⁾ | + 4 | | | | | | | | | | | |

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.

⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

ROTORS AND ACCESSORIES



Most of the adapters for carriers 5625-A and 4880 are built in layers. For shorter tubes, 1 to 2 layers should be removed. In the tables, the required layers are marked in grey.

Swing-out rotor 5699

| | | | | | | | | | | | | | | | | | |
|---|------------------------------|-------------|--------------------------|-------------|-------------|--------------------------|-------------|--------------------------|-------------|-------------|--------------------------|-------------|-------------|--------------------------|-------------|-------------|--------------------------|
| capacity in ml | 1.6-5 | 4-7 | 4-7 | 8.5-10 | 14 | 15 | 50 | 12 | 25 | 30 | 50 | 10 | 30 | 50 | 85 | 94 | |
| Ø x L in mm | 13x75 | 13x100 | 16x75 | 16x100 | 16.5x106 | 17x120 | 29x115 | 17x100 | 25x90 | 25x110 | 29x115 | 16x80 | 26x95 | 29x107 | 38x106 | 38x102 | |
| Cat. No. | blood collection/urine tubes | | | | - | 0509 | 0513 | - | | | | | - | 0545 | 0546 | 0547 | 0538⁶⁾ |
| lid with bio-containment ⁵⁾ Cat. No. 5627 | | | | | | | | | | | | | | | | | |
| carrier Cat. No. 5625-A | | | | | | | | | | | | | | | | | |
| Cat. No. | 4732 | 4733 | 4739⁴⁾ | 4739 | 4740 | 4739⁴⁾ | 4734 | 4740⁴⁾ | 4733 | 4734 | 4740⁴⁾ | 4736 | 4734 | 4740⁴⁾ | 4736 | 4736 | 4736 |
| boring Ø x L in mm | 13.5x84 | | 17.5x84 | | 17x80 | | 30x80 | 17x80 | 26.5x84 | | 30x80 | 17.5x84 | 26.5x84 | 30x80 | 42x80 | | |
| tubes per rotor | 80 | | 68 | | 48 | | 20 | 48 | 24 | | 20 | 68 | 24 | 20 | 12 | | |
| max. RCF ²⁾ | 4,637 | | | | | | | | | | | | | | 4,495 | | |
| radius in mm | 196 | | | | | | | | | | | | | | 190 | | |
| run-up in sec | 90 | | | | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---|-------------|-------------|-------------|-------|-------|--------------------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|--------|--------------------------|-------------|-------------|--------------------------|
| capacity in ml | 1.5 | 2.0 | 3 | 4 | 4 | 5 | 6 | 7 | 10 | 15 | 25 | 45 | 50 | 75 | 94 | 100 |
| Ø x L in mm | 11x38 | | 10x60 | 10x88 | 12x60 | 12x75 | 12x82 | 12x100 | 17x70 | 17x100 | 24x100 | 31x100 | 34x100 | 35x105 | 38x102 | 40x115 |
| Cat. No. | 2078 | 0536 | - | | | 0553²⁾ | 0501²⁾ | 0578²⁾ | 2079 | 0518²⁾ | 0519²⁾ | - | 0521²⁾ | 0548 | 0549 | 0523²⁾ |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | | | | | | | |
| carrier Cat. No. 4880 | | | | | | | | | | | | | | | | |
| Cat. No. | 4830 | | 4832 | | | | 4833 | | | 4834 | 4835 | | 4836 | | | |
| boring Ø x L in mm | 11x84 | | 13.5x84 | | | | 17.5x84 | | | 26.5x84 | 36x80 | | 42x80 | | | |
| tubes per rotor | 192 | | 96 | | 76 | | | 28 | | 16 | | 12 | | | | |
| max. RCF ²⁾ upper/lower | 3,572/4,637 | | 4,637 | | | | 4,637 | | | 4,495 | | 4,495 | | | | |
| radius in mm upper/lower | 151/196 | | 196 | | | | 196 | | | 190 | | 190 | | | | |
| run-up in sec | 90 | | | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | |

1) Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

2) Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote 2) is 4,000.

4) Please remove the inserts.

5) Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

6) The screw cap for tube No. 0538 is available with Cat. No. 0539. Dimensions with cap 38 x 110 mm.

ROTORS AND ACCESSORIES



illustrated with carriers 4880
and lids 4883
with bio-containment⁵⁾

Swing-out rotor 5699

| | | | | | | | | | | | | | | | | |
|---|--------------------------|--------------------------|---------------------------------------|-------------|-------------|-------------|-------------|--------------------------|-------------|-------------|-------------|-------------|-------------|----------|---------|---------|
| capacity in ml | 100 | 250 | 1.1–1.4 | 2.6–3.4 | 2.6–3.4 | 2.7–3 | 4–5.5 | 4.5–5 | 4.9 | 4.9 | 7.5–8.5 | 9–10 | 9–10 | 10 | 1.6–5 | 1.6–5 |
| Ø x L in mm | 44 x 100 | 65 x 115 | 8 x 66 | 13 x 65 | 13 x 65 | 11 x 66 | 15 x 75 | 11 x 92 | 13 x 90 | 13 x 90 | 15 x 92 | 16 x 92 | 16 x 92 | 15 x 102 | 13 x 75 | 13 x 75 |
| Cat. No. | 0526²⁾ | 0530²⁾ | blood collection / urine tubes | | | | | | | | | | | | | |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | | | | | | | |
| carrier Cat. No. 4880 | | | | | | | | | | | | | | | | |
| Cat. No. | 4837 | 4838 | 4830 | 4847 | 4832 | 4833 | 4832 | 4847⁴⁾ | 4833 | 4848 | 4833 | 4847 | 4832 | | | |
| boring Ø x L in mm | 46x84 | 66x80 | 11x84 | 13.2x61 | 13.5x84 | 17.5x84 | 13.5x84 | 13.2x61 | 17.5x84 | 17.5x61 | 17.5x84 | 13.2x61 | 13.5x84 | | | |
| tubes per rotor | 8 | 4 | 96 | 108 | | 76 | | 108 | 76 | 88 | 76 | 108 | 76 | | | |
| max. RCF ²⁾ | 4,637 | 4,495 | 4,637 | 4,116 | | 4,637 | | 4,684 | 4,637 | 4,684 | 4,637 | 4,116 | 4,637 | | | |
| radius in mm | 196 | 190 | 196 | 174 | | 196 | | 198 | 196 | 198 | 196 | 174 | 196 | | | |
| run-up in sec | 90 | | | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | |
|---|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|-------------|-------------|-------------|--------------------------|-------------|-------|--------|---|
| capacity in ml | 4–7 | 4–7 | 4–7 | 4–7 | 8 | 8.5–10 | 8.5–10 | 5 | 14 | 15 | 50 | 50 | 12 | 25 | 30 | |
| Ø x L in mm | 13x100 | 13x100 | 16x75 | 16x75 | 16x125 | 16x100 | 16x100 | 17x59 | 16.5x106 | 17x120 | 29x115 | 29x115 | 17x100 | 25x90 | 25x110 | |
| Cat. No. | blood collection / urine tubes | | | | | | | - | 0509 | 0513 | 0513 | - | - | - | - | - |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | | | | | | | |
| carrier Cat. No. 4880 | | | | | | | | | | | | | | | | |
| Cat. No. | 4847⁴⁾ | 4832 | 4833 | 4848 | 4833 | 4848 | 4839 | 4839⁴⁾ | 4839 | 5647 | 4840 | 4839⁴⁾ | 4834 | | | |
| boring Ø x L in mm | 13.2x61 | 13.5x84 | 17.5x84 | 17.5x61 | 17.5x84 | 17.5x61 | | 17x80 | | 30x96.5 | 30x80 | 17x80 | 26.5x84 | | | |
| tubes per rotor | 108 | 76 | 76 | 88 | 76 | 88 | | 56 | | 28 | 20 | 56 | 28 | | | |
| max. RCF ²⁾ | 4,684 | 4,637 | 4,637 | 4,684 | 4,637 | 4,684 | | 4,637 | | 4,708 | | 4,637 | | | | |
| radius in mm | 198 | 196 | 196 | 198 | 196 | 198 | | 196 | | 199 | | 196 | | | | |
| run-up in sec | 90 | | | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | |



ROTORS AND ACCESSORIES



Carrier 4885

The 4880 carrier is also available without a lid and clamp lock. The catalogue number is 4885.#)

Swing-out rotor 5699

| | | | | | | | | | | | | | | | | |
|---|--------------------|--------------------|-----------|-----------|-----------|--------------------|--------------------|----------|--------------------|--------------------|-----------------|----------|--------------------|--------------------|--------------------|--|
| capacity in ml | 50 | 50 | 10 | 10 | 30 | 50 | 50 | 85 | 94 | 250 | 290 | 500 | 600 | 650 | 750 | |
| Ø x L in mm | 29 x 115 | 29 x 115 | 16 x 80 | 16 x 80 | 26 x 95 | 29 x 107 | 29 x 107 | 38 x 106 | 38 x 102 | 61 x 122 | 62 x 137 | 96 x 147 | 93 x 134 | 97 x 139 | 97 x 152 | |
| Cat. No. | - | - | - | - | 0545 | 0546 | 0546 | 0547 | 0538 ⁶⁾ | 5127 ⁷⁾ | - ⁷⁾ | Corning | 0551 ⁷⁾ | 0554 ⁷⁾ | 0512 ⁷⁾ | |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | | | | | | | |
| carrier Cat. No. 4880 | | | | | | | | | | | | | | | | |
| Cat. No. | 5647 ⁴⁾ | 4840 ⁴⁾ | 4833 | 4848 | 4834 | 4840 ⁴⁾ | 5647 ⁴⁾ | 4836 | | 4841 | | 4845 | 4846 | 4845 | | |
| boring Ø x L in mm | 30 x 96.5 | 30 x 80 | 17.5 x 84 | 17.5 x 61 | 26.5 x 84 | 30 x 80 | 30 x 96.5 | 42 x 80 | | 62 x 100 | | 98 x 100 | 94 x 95 | 98 x 100 | | |
| tubes per rotor | 28 | 20 | 76 | 88 | 28 | 20 | 28 | 12 | | | | | 4 | | | |
| max. RCF ²⁾ | 4,708 | 4,637 | 4,637 | 4,684 | 4,637 | 4,708 | 4,495 | | | | | | 4,779 | | | |
| radius in mm | 199 | 196 | 196 | 198 | 196 | 199 | 190 | | | | | | 202 | | | |
| run-up in sec | 90 | | | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | |

| | | | | | | | | | | |
|---|----------|----------|---------|---------|-------|----------------------|---------|---------|-------|--|
| capacity in ml | 450 | 750 | 30/50 | | 40 | 160 | 200 | | | |
| Ø x L in mm | 97 x 113 | 96 x 135 | - | | | | | | | |
| Cat. No. | 4447 | 4234-A | Falcon® | Corning | Nunc® | Nunc® | Falcon® | Greiner | Nunc® | |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | |
| carrier Cat. No. 4880 | | | | | | | | | | |
| Cat. No. | 4845 | | 4849 | | 4852 | 4851 | | 4831 | | |
| boring Ø x L in mm | 98 x 100 | | | | | | | | | |
| tubes per rotor | 4 | | | | | 4 | | | | |
| max. RCF ²⁾ | 4,779 | | | | | 4,613 ¹⁴⁾ | | | | |
| radius in mm | 202 | | | | | 195 | | | | |
| run-up in sec | 90 | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | |

Accommodated cell culture flasks:

30/50 ml
from Becton Dickinson, No. 353014
from Corning, No. 430168

40 ml
from Nunc, No. 156340

160 ml
from Nunc, No. 156472

200 ml
from Becton Dickinson, No. 353024
from Greiner, No. 658170
from Nunc, No. 153732 or 147589

1) Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

2) Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote 2) is 4,000.

3) When using these tubes, carrier 4880 resp. 4890 cannot be closed with lid 4883.

4) Please remove the inserts.

5) Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

ROTORS AND ACCESSORIES



illustrated with carriers 4890
and lids 4883
with bio-containment⁵⁾



illustrated with carriers 4890

Swing-out rotor 5699

| capacity in ml | 1.5 | 2.0 | 5 | 7 | 8 | 9 | 10 | 15 | 25 | 50 | 100 | 2.6–3.4 | 2.7–3 | 4–5.5 | 4.5–5 | |
|---|---------------|-------------|--------------------------|--------------------------|-----------|--------------------------|-------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------|-------------|-------------|-------------|--|
| Ø x L in mm | 11 x 38 | | 12 x 75 | 12 x 100 | 16 x 81 | 14 x 100 | 17 x 70 | 17 x 100 | 24 x 100 | 34 x 100 | 44 x 100 | 13 x 65 | 11 x 66 | 15 x 75 | 11 x 92 | |
| Cat. No. | 2078 | 0536 | 0553²⁾ | 0578²⁾ | - | 0500²⁾ | 2079 | 0518²⁾ | 0519²⁾ | 0521²⁾ | 0526²⁾ | blood collection tubes | | | | |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | | | | | | | |
| carrier Cat. No. 4890 | | | | | | | | | | | | | | | | |
| Cat. No. | 4432 | 4433 | | | | | 4434 | | 4438 | 4439 | 4442 | 4435 | 4433 | 4434 | 4433 | |
| boring Ø x L in mm | 11.5 x 38 | | 13 x 58 | | 17.5 x 53 | | | 26 x 72 | | 36 x 79 | 45 x 78 | 13.5 x 58 | 13 x 58 | 17.5 x 53 | 13 x 58 | |
| tubes per rotor | 168 | | 120 | | 76 | | | 28 | | 16 | 8 | 84 | 120 | 76 | 120 | |
| max. RCF ²⁾ upper/lower | 3,407 / 4,542 | | 4,471 | | 4,637 | | | 4,353 | | 4,424 | 4,400 | 4,471 | | 4,637 | 4,471 | |
| radius in mm upper/lower | 144 / 192 | | 189 | | 196 | | | 184 | | 187 | 186 | 189 | | 196 | 189 | |
| run-up in sec | 90 | | | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | |

| capacity in ml | 4.9 | 7.5–8.5 | 9–10 | 10 | 1.6–5 | 4–7 | 4–7 | 8 | 8.5–10 | 10 | 15 | 50 | 25 | 30 | 50 | 50 | | |
|---|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|-------------|-------------|---|-------------|
| Ø x L in mm | 13 x 90 | 15 x 92 | 16 x 92 | 15 x 102 | 13 x 75 | 13 x 100 | 16 x 75 | 16 x 125 | 16 x 100 | 16 x 80 | 17 x 120 | 29 x 115 | 25 x 90 | 25 x 110 | 29 x 115 | 29 x 107 | | |
| Cat. No. | blood collection/urine tubes | | | | | | | | | | | - | 0509 | 0513 | - | - | - | 0546 |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | | | | | | | | | |
| carrier Cat. No. 4890 | | | | | | | | | | | | | | | | | | |
| Cat. No. | 4435 | 4434 | 4435 | 4434 | 4435 | 4434 | 4435 | 4434 | 4435 | 4434 | 4469 | 4468 | 4438 | 4468⁴⁾ | 4468 | 4468 | | |
| boring Ø x L in mm | 13.5 x 58 | | 17.5 x 53 | | 13.5 x 58 | | | 17.5 x 53 | | 17 x 93.1 | | 31 x 96 | 26 x 72 | | 31 x 96 | | | |
| tubes per rotor | 84 | | 76 | | 84 | | | 76 | | 56 | | 28 | 28 | | 28 | | | |
| max. RCF ²⁾ | 4,471 | | 4,637 | | 4,471 | | | 4,637 | | 4,755 | | 4,613 | 4,566 | | 4,613 | | | |
| radius in mm | 189 | | 196 | | 189 | | | 196 | | 201 | | 195 | 193 | | 195 | | | |
| run-up in sec | 90 | | | | | | | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | | | |

⁶⁾ The screw cap for tube No. 0538 is available with Cat. No. 0539. Dimensions with cap 38 x 110 mm.

⁷⁾ At temperatures of over +40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

¹⁴⁾ Please note that the RCF values indicated refer only to rotor performance.

The max. RCF for the accommodated cell culture flasks is 2,300.

^{#)} With the E3906 add-on kit and the 4883 lid, the 4885 carrier can be converted at a later time to a 4880 carrier with single-hand clamp lock.

ROTORS AND ACCESSORIES



Carrier 4895

The 4890 carrier is also available without a lid and clamp lock. The catalogue number is 4895.#)

Swing-out rotor 5699

| capacity in ml | 250 | 290 | 650 | 750 | 175 | 175 | 200 | 225 | 250 | 500 |
|---|--------------------|-----------------|--------------------|--------------------|----------|----------|----------|----------|----------|----------|
| Ø x L in mm | 61 x 122 | 62 x 137 | 97 x 139 | 97 x 152 | 61 x 118 | 62 x 144 | 60 x 130 | 61 x 137 | 60 x 162 | 96 x 147 |
| Cat. No. | 5127 ⁷⁾ | - ⁷⁾ | 0554 ⁷⁾ | 0512 ⁷⁾ | Falcon® | Nalgene® | Nunc® | Falcon® | Corning | Corning |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | | | | | | | | |
| carrier Cat. No. 4890 | | | | | | | | | | |
| Cat. No. | 4443 | 4451 | 4440 | 4430 | 4440 | 4430 | 4440 | 4430 | 4449 | |
| boring Ø x L in mm | 62 x 92 | 98.4 x 116 | - | | | | | | | |
| tubes per rotor | 4 | | | | 4 | | | | | |
| max. RCF ²⁾ | 4,873 | | | | 5,063 | | | | | |
| radius in mm | 206 | | | | 214 | | | | | |
| run-up in sec | 90 | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | |

| capacity in ml | 450 | 750 | 450 |
|---|------------|----------|----------------------------------|
| Ø x L in mm | 97 x 113 | 96 x 135 | triplicate system without filter |
| Cat. No. | 4447 | 4234-A | blood bags ¹⁵⁾ |
| lid with bio-containment ⁵⁾ Cat. No. 4883 | | | |
| carrier Cat. No. 4890 | | | |
| Cat. No. | 4451 | - | |
| boring Ø x L in mm | 98.4 x 116 | | |
| tubes per rotor | 4 | | |
| max. RCF ²⁾ | 5,063 | | |
| radius in mm | 214 | | |
| run-up in sec | 90 | | |
| run-down in sec, braked | 95 | | |
| temperature in °C ¹⁾ | +4 | | |

1) Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

2) Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote 2) is 4,000.

3) When using these tubes, carrier 4890 cannot be closed with lid 4883.

5) Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

7) At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

ROTORS AND ACCESSORIES





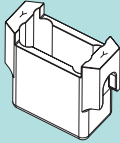

carrier 5691-A, insert 5692
and holders 5693 and 5695

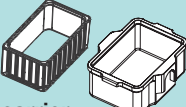























illustrated with carriers 5628
and adapters 6338-B

Swing-out rotor 5699

| | | |
|---|--|---|
| capacity in ml | 450 | |
| blood bags ¹⁵⁾ | triplicate system | quadruplicate system |
| Cat. No. | 5693 | 5695 |
|  carrier Cat. No. 5691-A | holder for systems without filter | holder for systems with or without filter |
| |  | |
| Cat. No. | 5692 | |
| boring Ø x L in mm | - | |
| blood bag systems per rotor | 4 | |
| max. RCF ²⁾ | 4,637 | |
| radius in mm | 196 | |
| run-up in sec | 90 | |
| run-down in sec, braked | 95 | |
| temperature in °C ¹⁾ | +11 | |

| | |
|---|--|
| capacity in ml | - |
| L x W x H in mm | 152.5 x 85.5 x 12 |
| Cat. No. | - |
|  carrier Cat. No. 5636 | TaqMan array |
| |  |
| Cat. No. | 5648 |
| boring Ø x L in mm | - |
| arrays per rotor | 12 |
| max. RCF ²⁾ | 4,921 |
| radius in mm | 208 |
| run-up in sec | 90 |
| run-down in sec, braked | 95 |
| temperature in °C ¹⁾ | +4 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| capacity in ml | 1.5 | 2.0 | 3 | 5 | 6 | 7 | 9 | 25 | 50 | 100 | 100 | 250 |
| Ø x L in mm | 11 x 38 | | 10x60 | 12 x 75 | 12 x 82 | 12x100 | 14 x 100 | 24x100 | 34x100 | 44x100 | 40x115 | 65 x 115 |
| Cat. No. | 2078 | 0536 | - | 0553 ²⁾ | 0501 ²⁾ | 0578 ²⁾ | 0500 ²⁾ | 0519 ²⁾ | 0521 ²⁾ | 0526 ²⁾ | 0523 ²⁾ | 0530 ²⁾ |
|  carrier Cat. No. 5628 ³⁾ |  |  |  |  |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |  | | | |
| Cat. No. ³⁾ | 5281 | 5267 | | 5268 | | 5264 | 5242 | 5243 | 5262 | 5249 | 5263-A | |
| boring Ø x L in mm | 11.5 x 50 | 11 x 44 | | 13.5 x 52 | | 16 x 50 | 26 x 86 | 36 x 86 | 45.5 x 86 | 42 x 86 | 66 x 87 | |
| tubes per rotor | 128 | 160 | | 96 | | 96 | 40 | 16 | 8 | | 4 | |
| max. RCF ²⁾ | 4,164 | 4,069 | | 4,164 | | 4,116 | 4,093 | 4,069 | 4,069 | | 4,045 | |
| radius in mm | 176 | 172 | | 176 | | 174 | 173 | 172 | 172 | | 171 | |
| run-up in sec | 90 | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | |

⁸⁾ Please make sure not to exceed the max. permissible loading weight of 800g of carrier 5628. The loading weight is the sum of the weight of the respective adapters, of frame 5220-A (where required), the tubes, and their contents.

⁹⁾ With the exception of adapters 5263-A, 6337-B, 6338-B and 6339-A, two of these adapters need to be placed into carrier 5628.

¹⁵⁾ We recommend the use of the refrigerated ROTANTA 460 R, 460 RC and 460 RF to ensure that the temperature of the blood is maintained during centrifugation.

^{#)} With the E3906 add-on kit and the 4883 lid, the 4895 carrier can be converted at a later time to a 4890 carrier with single-hand clamp lock.

ROTORS AND ACCESSORIES



illustrated with carriers 5628,
adapting frame 5220-A and
adapters 5258

Swing-out rotor 5699

| | | | | | | | | | | | | |
|---|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| capacity in ml | 1.1–1.4 | 2.6–3.4 | 2.7–3 | 4–5.5 | 4.5–5 | 4.9 | 7.5–8.5 | 9–10 | 1.6–5 | 4–7 | 4–7 | 8.5–10 |
| Ø x L in mm | 8x66 | 13x65 | 11x66 | 15x75 | 11x92 | 13x90 | 15x92 | 16x92 | 13x75 | 16x75 | 13x100 | 16x100 |
| Cat. No. | blood collection/urine tubes | | | | | | | | | | | |
| (without lid 5629) adapting frame Cat. No. 5220-A | | | | | | | | | | | | |
| carrier Cat. No. 5628 ⁸⁾ | | | | | | | | | | | | |
| Cat. No.⁹⁾ | 5267 | 5268 | 5227 | 5264 | 5227 | 5268 | 5264 | 5258 | 5268 | 5264 | 5268 | 5258 |
| boring Ø x L in mm | 11x44 | 13.5x52 | 12.5x42 | 16x50 | 12.5x42 | 13.5x52 | 16x50 | 17.6x86 | 13.5x52 | 16x50 | 13.5x52 | 17.6x86 |
| tubes per rotor | 160 | 96 | 160 | 96 | 160 | 96 | 96 | 88 | 96 | | 88 | |
| max. RCF ²⁾ | 4,069 | 4,164 | 4,116 | | 4,164 | | 4,116 | 4,093 | 4,164 | 4,116 | 4,164 | 4,093 |
| radius in mm | 172 | 176 | 174 | | 176 | | 174 | 173 | 176 | 174 | 176 | 173 |
| run-up in sec | 90 | | | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | |

| | | | | | | |
|---|---------------|--------------------------|---------------|---------------|----------------------------|--|
| capacity in ml | 15 | 30 | 50 | 50 | 250 | two-tier frame for cyto accessories |
| Ø x L in mm | 17x120 | 25x110 | 29x115 | 29x115 | 61x122 | |
| Cat. No. | 0509 | - | 0513 | - | 5127⁷⁾ | cyto chambers¹⁰⁾ |
| (without lid 5629) adapting frame Cat. No. 5220-A | | | | | | |
| carrier Cat. No. 5628 ⁸⁾ | | | | | | |
| Cat. No.⁹⁾ | 6337-B | 5266⁴⁾ | 6338-B | 6339-A | 5263-A⁴⁾ | 5280 |
| boring Ø x L in mm | 17x90 | 26x86 | 30x90 | 30x87 | 66x87 | - |
| tubes per rotor | 56 | 40 | 24 | 24 | 4 | 16 |
| max. RCF ²⁾ upper/lower | 4,258 | 4,187 | 4,258 | 4,187 | | 2,744/4,069 |
| radius in mm upper/lower | 180 | 177 | 180 | 177 | | 116/172 |
| run-up in sec | 90 | | | | | |
| run-down in sec, braked | 95 | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | |



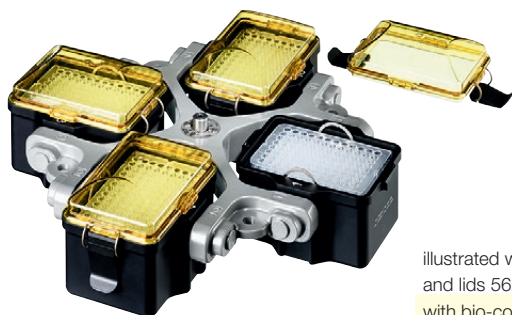
Carrier 5628, adapting frame 5220-A and adapters 5258



Carrier 5628 and adapter 6338-B

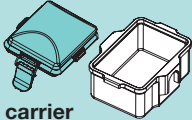

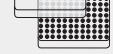






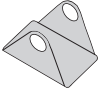
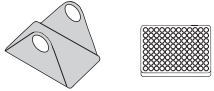
- 1) Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.
- 2) Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.
- 4) Please remove the inserts.
- 5) Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

ROTORS AND ACCESSORIES



illustrated with carriers 5628
and lids 5629
with bio-containment⁵⁾
and removal frame 4626

Swing-out rotor 5699

| | | | | | | | | | |
|---|--|---|---|---|---|--|--|---|------|
| D x W x H in mm | 86x128x15 | 86x128x17.5 | 86x128x22 | 86x128x44.5 | 86x128x46 | 86x128x83 | 59x84x11 | 82x124x20 | - |
| capacity in ml | - | | | | | | | | |
| capacity in ml | 0.2 | | | | | | | | |
| Cat. No. | MTP | CP | DWP | MS | QP | Microtest plate (Terasaki) | PCR plate, 96 wells | PCR strips | |
| lid with bio-containment ⁵⁾ Cat. No. 5629  |  |  |  |  |  |  |  |  | |
| carrier Cat. No. 5628 ⁹⁾ |  | | | | | |  | | |
| Cat. No. | 4626 | | | | | | 4626 + 1485 | | |
| boring Ø x L in mm | - | | | | | | | | |
| plates/strips per rotor | 24 | 20 | 16 | 4 | 4 | 4 | 8 | 4 | 48x8 |
| max. RCF ²⁾ | 4,211 | | | | | | | | |
| radius in mm | max. 178 | | | | | | | | |
| run-up in sec | 90 | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | |
| temperature in °C ¹⁾ | + 4 | | | | | | | | |

⁷⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

⁸⁾ Please make sure not to exceed the max. permissible loading weight of 800g of carrier 5628. The loading weight is the sum of the weight of the respective adapters, of frame 5220-A (where required), the tubes, and their contents.

⁹⁾ With the exception of adapters 5263-A, 6337-B, 6338-B and 6339-A, two of these adapters need to be placed into carrier 5628.










¹⁰⁾ Please ask for our detailed cyto brochure.

ROTORS AND ACCESSORIES



illustrated with carriers 5630-B
and removal frame 4626

Swing-out rotor 5699

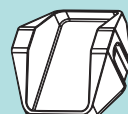

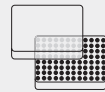
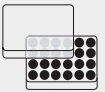






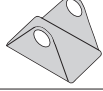
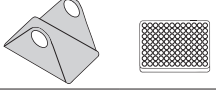
| | | | | | |
|---|--|--|---|--|---|
| capacity in ml | 40 | 160 | 200 | | |
| L x W x H in mm | - | | | | |
| Cat. No. | Nunc® | Nunc® | Falcon® | Greiner | Nunc® |
|  carrier Cat. No. 5630-B |  |  |  |  |  |
| |  |  | |  | |
| Cat. No. | 5672 | 5673 | 5671 | | |
| boring Ø x L in mm | - | | | | |
| flasks per rotor | 4 | | | | |
| max. RCF ²⁾ | 3,785 ¹⁴⁾ | | | | |
| radius in mm | 160 | | | | |
| run-up in sec | 90 | | | | |
| run-down in sec, braked | 95 | | | | |
| temperature in °C ¹⁾ | +4 | | | | |

Accommodated cell culture flasks:

40 ml
from Nunc, No. 156340 or 156367

160 ml
from Nunc, No. 156472 or 156499

200 ml
from Becton Dickinson, No. 353024
from Greiner, No. 658170
from Nunc, No. 153732 or 147589

| | | | | | | | | | | |
|---|---|---|---|---|---|--|---|---|---|--|
| L x W x H in mm | 86 x 128 x 15 | 86 x 128 x 17.5 | 86 x 128 x 22 | 86 x 128 x 44.5 | 86 x 128 x 46 | 86 x 128 x 83 | 59 x 84 x 11 | 82 x 124 x 20 | - | |
| capacity in ml | - | | | | | | | | | |
| Cat. No. | MTP | | CP | DWP | MS | QP | Microtest plate (Terasaki) | PCR plate, 96 wells | PCR strips | |
|  carrier Cat. No. 5630-B |  |  |  |  |  |  |  |  |  | |
| |  | | | | | | |  | | |
| Cat. No. | 4626 | | | | | | | 4626 + 1485 | | |
| boring Ø x L in mm | - | | | | | | | | | |
| flasks per rotor | 20 | 16 | 12 | 4 | 4 | 4 | 8 | 4 | 48 x 8 | |
| max. RCF ²⁾ | 3,832 | | | | | | | | | |
| radius in mm | max. 162 | | | | | | | | | |
| run-up in sec | 90 | | | | | | | | | |
| run-down in sec, braked | 95 | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | |

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.

³⁾ When using these tubes, carrier 5651-A cannot be closed with lid 5652.

ROTORS AND ACCESSORIES

Swing-out rotor, 4-place

±90°

n = 3,800 min⁻¹
max. RCF 3,196



illustrated with carriers 5651-A
and lids 5652
with bio-containment⁵⁾

Cat. No. (without carriers) **5654**

| | | | | | | | | | | | | | |
|--|-------------|-------|-------|---------------------------|---------------------------|---------------------------|-------------|-------------|---------------------------|-------------------------------|-------------|-------------|-------|
| capacity in ml | 3 | 4 | 4 | 5 | 6 | 7 | 10 | 10 | 15 | 1.1–1.4 | 2.6–3.4 | 2.7–3 | 4.5–5 |
| Ø x L in mm | 10x60 | 10x88 | 12x60 | 12x75 | 12x82 | 12x100 | 17x70 | 13x100 | 17x100 | 8x66 | 13x65 | 11x66 | 11x92 |
| Cat. No. | - | - | - | 0553 ²⁾ | 0501 ²⁾ | 0578 ²⁾ | 2079 | - | 0518 ²⁾ | blood collection tubes | | | |
| lid with bio-containment ⁵⁾ Cat. No. 5652 | | | | | | | | | | | | | |
| carrier Cat. No. 5651-A | | | | | | | | | | | | | |
| Cat. No. | 5684 | | | 5682 | | | 5674 | 5685 | 5682 | 5684 | 5674 | 5684 | |
| boring Ø x L in mm | 12.5x40 | | | 17.2x46.5 | | | 13.2x42.4 | 17.2x46.5 | 12.5x40 | 13.2x42.4 | 12.5x40 | | |
| tubes per rotor | 292 | | | 148 | | | 196 | 188 | 148 | 292 | 196 | 292 | |
| max. RCF | 2,874 | | | 2,970 | | | 2,906 | | 2,970 | 2,874 | 2,906 | 2,874 | |
| radius in mm | 178 | | | 184 | | | 180 | | 184 | 178 | 180 | 178 | |
| run-up in sec | 61 | | | | | | | | | | | | |
| run-down in sec, braked | 57 | | | | | | | | | | | | |
| temperature in °C ¹⁾ | 0 | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|--|-------------------------------------|-------------|-------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------|---------------------------|
| capacity in ml | 4–5.5 | 4.9 | 7.5–8.5 | 9–10 | 10 | 1.6–5 | 4–7 | 4–7 | 8.5–10 | 10 | 5 | 15 | 50 | |
| Ø x L in mm | 15x75 | 13x90 | 15x92 | 16x92 | 15x102 | 13x75 | 16x75 | 13x100 | 16x100 | 16x80 | 17x59 | 17x120 | 29x115 | |
| Cat. No. | blood collection/urine tubes | | | | | | | | | | | - | 0509 ²⁾ | 0513 ²⁾ |
| lid with bio-containment ⁵⁾ Cat. No. 5652 | | | | | | | | | | | | | | |
| carrier Cat. No. 5651-A | | | | | | | | | | | | | | |
| Cat. No. | 5682 | 5674 | 5682 | | 5674 | 5682 | 5674 | 5685 | 5682 | 5688 | 5683 | 5686 | | |
| boring Ø x L in mm | 17.2x46.5 | 13.2x42.4 | 17.2x46.5 | | 13.2x42.4 | 17.2x46.5 | 13.2x42.4 | 13.2x42.4 | 17.2x46.5 | 17x42 | 17x60 | 30x60 | | |
| tubes per rotor | 148 | 196 | 148 | | 196 | 148 | 196 | 188 | 148 | 80 | 96 | 40 | | |
| max. RCF | 2,970 | 2,906 | 2,970 | | 2,906 | 2,970 | 2,906 | 2,906 | 2,970 | 3,196 | 3,196 | 3,196 | | |
| radius in mm | 184 | 180 | 184 | | 180 | 184 | 180 | 180 | 184 | 198 | 198 | 198 | | |
| run-up in sec | 61 | | | | | | | | | | | | | |
| run-down in sec, braked | 57 | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | 0 | | | | | | | | | | | | | |

⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

¹⁴⁾ Please note that the RCF values indicated refer only to rotor performance. The max. RCF for the accommodated cell culture flasks is 2,300.

ROTORS AND ACCESSORIES



illustrated with carriers 5651-A
and lids 5652
with bio-containment⁵⁾

Swing-out rotor 5654

| | | | | | | | | | | | |
|---|----------------|-----------------|--------------|----------------|--------------------------|-----------------------|-------------|----------------|--------------------------|--------------------------|--------------------------|
| capacity in ml | 175 | 175 | 200 | 225 | 250 | 290 | 450 | 500 | 600 | 650 | 750 |
| Ø x L in mm | 61x118 | 62x144 | 60x130 | 61x137 | 61x122 | 62 x 137 | 97x113 | 96 x 147 | 93x134 | 97 x 139 | 97x152 |
| Cat. No. | Falcon® | Nalgene® | Nunc® | Falcon® | 5127⁷⁾ | -⁷⁾ | 4447 | Corning | 0551⁷⁾ | 0554⁷⁾ | 0512⁷⁾ |
| lid with bio-containment ⁵⁾ Cat. No. 5652 | | | | | | | | | | | |
| carrier Cat. No. 5651-A | | | | | | | | | | | |
| Cat. No. | 5681 | | | | | | 5687 | | | | |
| boring Ø x L in mm | 62x100 | | | | | | 98x100 | | | | |
| tubes per rotor | 8 | | | | | | 4 | | | | |
| max. RCF | 3,196 | | | | | | 3,196 | | | | |
| radius in mm | 198 | | | | | | 198 | | | | |
| run-up in sec | | | | | | | 61 | | | | |
| run-down in sec, braked | | | | | | | 57 | | | | |
| temperature in °C ¹⁾ | | | | | | | 0 | | | | |

| | | | | | | | | | | |
|---|---------------|-----------------|---------------|-----------------|---------------|---------------|-----------------------------------|----------------------------|-------------------|-----|
| D x W x H in mm | 86 x 128 x 15 | 86 x 128 x 17.5 | 86 x 128 x 22 | 86 x 128 x 44.5 | 86 x 128 x 46 | 86 x 128 x 83 | 59 x 84 x 11 | 82 x 124 x 20 | - | |
| capacity in ml | - | | | | | | | | | 0.2 |
| Cat. No. | MTP | | CP | DWP | MS | QP | Microtest plate (Terasaki) | PCR plate, 96 wells | PCR strips | |
| lid with bio-containment ⁵⁾ Cat. No. 5629 | | | | | | | | | | |
| carrier Cat. No. 5653 | | | | | | | | | | |
| Cat. No. | 4626 | | | | | | 4626 + 1485 | | | |
| boring Ø x L in mm | - | | | | | | | | | |
| plates/strips per rotor | 24 | 20 | 16 | 4 | 4 | 4 | 8 | 4 | 48 x 8 | |
| max. RCF ²⁾ | 2,890 | | | | | | | | | |
| radius in mm | max. 179 | | | | | | | | | |
| run-up in sec | 61 | | | | | | | | | |
| run-down in sec, braked | 57 | | | | | | | | | |
| temperature in °C ¹⁾ | -4 | | | | | | | | | |

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.

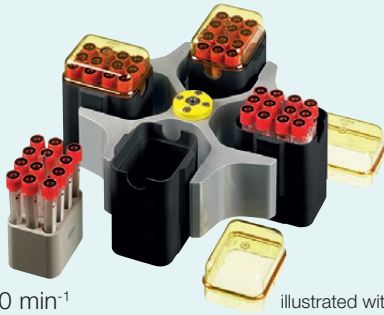
³⁾ When using these tubes, carrier 5651-A resp. 5051 cannot be closed with lid 5652 resp. 5053.

ROTORS AND ACCESSORIES

Swing-out rotor, 4-place

±90°

n = 4,000 min⁻¹
max. RCF 3,095



illustrated with carriers 5051
and lids 5053

Cat. No. (without carriers) **5694**

| | | | | | | | | | | | | | | | | | | |
|------------------------------------|-------------|-------------|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------|---------|---------|---------|--|
| capacity in ml | 1.5 | 2.0 | 1.5 | 2.0 | 5 | 6 | 7 | 9 | 15 | 25 | 50 | 100 | 100 | 1.1–1.4 | 2.6–3.4 | 2.7–3 | 4–5.5 | |
| Ø x L in mm | 11 x 38 | | 11 x 38 | | 12 x 75 | 12 x 82 | 12 x 100 | 14 x 100 | 17 x 100 | 24 x 100 | 34 x 100 | 44 x 100 | 40 x 115 | 8 x 66 | 13 x 65 | 11 x 66 | 15 x 75 | |
| Cat. No. | - | - | 2078 | 0536 | 0553²⁾ | 0501²⁾ | 0578²⁾ | 0500²⁾ | 0518²⁾ | 0519²⁾ | 0521²⁾ | 0526²⁾ | 0523²⁾ | blood collection tubes | | | | |
| lid Cat. No. 5053 | | | | | | | | | | | | | | | | | | |
| carrier Cat. No. 5051 | | | | | | | | | | | | | | | | | | |
| Cat. No. | 5257 | 5281 | 5227 | 5247¹⁾ | 5264 | 5248¹⁾ | 5242 | 5243 | 5262 | 5249 | 5267 | 5268 | 5227 | 5264 | | | | |
| boring Ø x L in mm | 12.5 x 42 | 11.5 x 50 | 12.5 x 42 | 12.5 x 86 | 16 x 50 | 17.5 x 86 | 26 x 86 | 36 x 86 | 45.5 x 86 | 42 x 86 | 11 x 44 | 13.5 x 52 | 12.5 x 42 | 16 x 50 | | | | |
| tubes per rotor | 160 | 64 | 80 | 80 | 48 | 48 | 20 | 8 | 4 | 80 | 48 | 80 | 48 | | | | | |
| max. RCF ²⁾ upper/lower | 1,950/2,826 | 2,826 | 2,773 | 2,755 | 2,773 | 2,755 | 2,755 | 2,755 | 2,737 | 2,808 | 2,773 | | | | | | | |
| radius in mm upper/lower | 109/158 | 158 | 155 | 154 | 155 | 154 | 154 | 154 | 153 | 157 | 155 | | | | | | | |
| run-up in sec | 42 | | | | | | | | | | | | | | | | | |
| run-down in sec, braked | 51 | | | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | -3 | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|------------------------------------|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------------|--|--|
| capacity in ml | 4.5–5 | 4.9 | 7.5–8.5 | 9–10 | 10 | 1.6–5 | 4–7 | 4–7 | 8.5–10 | 15 | 50 | 12 | 30 | 50 | two-tier frame for cyto accessories | | |
| Ø x L in mm | 11 x 92 | 13 x 90 | 15 x 92 | 16 x 92 | 15 x 102 | 13 x 75 | 16 x 75 | 13 x 100 | 16 x 100 | 17 x 120 | 29 x 115 | 17 x 100 | 25 x 110 | 29 x 115 | | | |
| Cat. No. | blood collection/urine tubes | | | | | | | | | | 0509 | 0513 | - | - | cyto chambers¹⁰⁾ | | |
| lid Cat. No. 5053 | | | | | | | | | | | | | | | | | |
| carrier Cat. No. 5051 | | | | | | | | | | | | | | | | | |
| Cat. No. | 5227 | 5268 | 5264 | 5258 | 5268 | 5264 | 5268 | 5248 | 6306 | 5259 | 6306 | 5266 | 5243 | 5280 | | | |
| boring Ø x L in mm | 12.5 x 42 | 13.5 x 52 | 16 x 50 | 17.6 x 86 | 13.5 x 52 | 16 x 50 | 13.5 x 52 | 17.5 x 86 | 17 x 90 | 30 x 86 | 17 x 90 | 26 x 86 | 36 x 86 | - | | | |
| tubes per rotor | 80 | 48 | 48 | 44 | 48 | | | | 28 | 8 | 28 | 20 | 8 | 8 | | | |
| max. RCF ²⁾ upper/lower | 2,773 | 2,808 | 2,773 | 2,755 | 2,808 | 2,773 | 2,808 | 2,755 | 2,898 | 2,826 | 2,898 | 2,755 | | 1,735/2,737 | | | |
| radius in mm upper/lower | 155 | 157 | 155 | 154 | 157 | 155 | 157 | 154 | 162 | 158 | 162 | 154 | | 97/153 | | | |
| run-up in sec | 42 | | | | | | | | | | | | | | | | |
| run-down in sec, braked | 51 | | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | -3 | | | | | | | | | | | | | | | | |

⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

⁷⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

¹⁰⁾ Please ask for our detailed cyto brochure.

¹¹⁾ With Cat. No. 5247-91 or 5248-91 these adapters can also be ordered with a decanting aid.

ROTORS AND ACCESSORIES



illustrated with carriers 5051 and lids 5053



illustrated with carriers 5092

Swing-out rotor 5694

| | | | | | | | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------|-------------|-------------|-------------|
| capacity in ml | 5 | 6 | 7 | 10 | 15 | 25 | 50 | 100 | 100 | 250 | 1.1–1.4 | 1.1–1.4 | 2.6–3.4 | 2.6–3.4 |
| Ø x L in mm | 12 x 75 | 12 x 82 | 12 x 100 | 17 x 70 | 17 x 100 | 24 x 100 | 34 x 100 | 44 x 100 | 40 x 115 | 65 x 115 | 8 x 66 | 8 x 66 | 13 x 65 | 13 x 65 |
| Cat. No. | 0553²⁾ | 0501²⁾ | 0578²⁾ | 2079 | 0518²⁾ | 0519²⁾ | 0521²⁾ | 0526²⁾ | 0523²⁾ | 0530²⁾ | blood collection tubes | | | |
| lid with bio-containment ⁵⁾ Cat. No. 5093 | | | | | | | | | | | | | | |
| carrier Cat. No. 5092 | | | | | | | | | | | | | | |
| Cat. No. | 5128 | 5120 | 5136 | 5122 | 5124 | 5125 | 5126 | 1791 | 5137 | 5138 | 5137 | 5138 | 5137 | 5138 |
| boring Ø x L in mm | 12.8 x 45 | 12.8 x 82 | 17.5 x 60.7 | 25.5 x 82 | 35.5 x 82.5 | 45.5 x 85 | 42 x 85 | 66 x 103 | 13.5 x 60.7 | 12.8 x 54.5 | 13.5 x 60.7 | 12.8 x 54.5 | 13.5 x 60.7 | 12.8 x 54.5 |
| tubes per rotor | 48 | | 32 | | 16 | | 4 | | 32 | | 48 | | 32 | |
| max. RCF ²⁾ | 3,005 | | 2,952 | | 2,898 | | 2,952 | | 3,095 | | 2,952 | | 2,540 | |
| radius in mm | 168 | | 165 | | 162 | | 165 | | 173 | | 165 | | 142 | |
| run-up in sec | 42 | | | | | | | | | | | | | |
| run-down in sec, braked | 51 | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | -3 | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------|-------------|-------------|-------------|
| capacity in ml | 2.7–3 | 2.7–3 | 4–5.5 | 4.5–5 | 4.9 | 7.5–8.5 | 9–10 | 10 | 1.6–5 | 1.6–5 | 4–7 | 4–7 | 8 | 8.5–10 |
| Ø x L in mm | 11 x 66 | 11 x 66 | 15 x 75 | 11 x 92 | 13 x 90 | 15 x 92 | 16 x 92 | 15 x 102 | 13 x 75 | 13 x 75 | 13 x 100 | 16 x 75 | 16 x 125 | 16 x 100 |
| Cat. No. | blood collection/urine tubes | | | | | | | | | | | | | |
| lid with bio-containment ⁵⁾ Cat. No. 5093 | | | | | | | | | | | | | | |
| carrier Cat. No. 5092 | | | | | | | | | | | | | | |
| Cat. No. | 5137 | 5138 | 5136 | 5120 | 5137 | 5136 | 5137 | 5138 | 5120 | 5136 | 5121⁴⁾ | 5136 | 5136 | 5136 |
| boring Ø x L in mm | 13.5 x 60.7 | 12.8 x 54.5 | 17.5 x 60.7 | 12.8 x 82 | 13.5 x 60.7 | 17.5 x 60.7 | 17.5 x 60.7 | 13.5 x 60.7 | 12.8 x 54.5 | 12.8 x 82 | 17.5 x 60.7 | 17.5 x 82 | 17.5 x 60.7 | 17.5 x 60.7 |
| tubes per rotor | 32 | 48 | 32 | 48 | 32 | 32 | 32 | 32 | 48 | 48 | 32 | 28 | 32 | 32 |
| max. RCF ²⁾ | 2,952 | 2,540 | 2,952 | 3,005 | 2,952 | 2,952 | 2,952 | 2,952 | 2,540 | 3,005 | 2,952 | 3,059 | 2,952 | 2,952 |
| radius in mm | 165 | 142 | 165 | 168 | 165 | 165 | 165 | 165 | 142 | 168 | 165 | 171 | 165 | 165 |
| run-up in sec | 42 | | | | | | | | | | | | | |
| run-down in sec, braked | 51 | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | -3 | | | | | | | | | | | | | |

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.

³⁾ When using these tubes, carrier 5051 resp. 5092 cannot be closed with lid 5053 resp. 5093.


















⁴⁾ Please remove the inserts.

ROTORS AND ACCESSORIES



illustrated with carriers 5092

Swing-out rotor 5694

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|---|---|
| capacity in ml | 15 | 50 | 12 | 25 | 30 | 50 | 10 | 250 | 290 |
| Ø x L in mm | 17 x 120 | 29 x 115 | 17 x 100 | 25 x 90 | 25 x 110 | 29 x 115 | 16 x 80 | 61 x 122 | 62 x 137 |
| Cat. No. | 0509 | 0513 | - | | | | 5127⁷⁾ | | -⁷⁾ |
| lid with bio-containment ⁵⁾ Cat. No. 5093 |  |  |  |  |  |  |  |  |  |
| carrier Cat. No. 5092 |  |  |  |  |  |  |  |  | |
| Cat. No. | 5129 | 5123 | 5121 | 5134 | 5122 | 5135 | 5136 | 6319 | |
| boring Ø x L in mm | 17 x 85 | 30 x 85 | 17.5 x 82 | 26 x 73 | 25.5 x 82 | 30 x 99 | 17.5 x 60.7 | 66 x 103 | |
| tubes per rotor | 28 | 8 | 28 | 12 | 16 | 8 | 32 | 4 | |
| max. RCF ²⁾ | 3,095 | | 3,005 | 2,826 | 2,898 | 3,023 | 2,952 | 3,095 | |
| radius in mm | 173 | | 168 | 158 | 162 | 169 | 165 | 173 | |
| run-up in sec | 42 | | | | | | | | |
| run-down in sec, braked | 51 | | | | | | | | |
| temperature in °C ¹⁾ | -3 | | | | | | | | |

⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

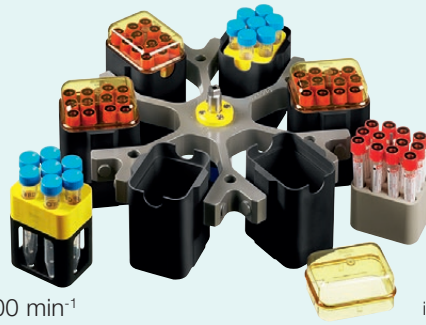
⁷⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

ROTORS AND ACCESSORIES

Swing-out rotor, 6-place


































±90°


































n = 4,000 min⁻¹
max. RCF 3,631



illustrated with carriers 5051

Cat. No. (without carriers) **4446**

| capacity in ml | 1.5 | 2.0 | 1.5 | 2.0 | 3 | 5 | 6 | 7 | 9 | 15 | 25 | 50 | 100 | 100 | 1.1–1.4 | 2.6–3.4 | 2.7–3 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ø x L in mm | 11 x 38 | | 11 x 38 | | 10 x 60 | 12 x 75 | 12 x 82 | 12 x 100 | 14 x 100 | 17 x 100 | 24 x 100 | 34 x 100 | 44 x 100 | 40 x 115 | 8 x 66 | 13 x 65 | 11 x 66 |
| Cat. No. | - | - | 2078 | 0536 | - | 0553²⁾ | 0501²⁾ | 0578²⁾ | 0500²⁾ | 0518²⁾ | 0519²⁾ | 0521²⁾ | 0526²⁾ | 0523²⁾ | blood collection tubes | | |
| lid Cat. No. 5053  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | |
| Cat. No. | 5257 | 5281 | 5267 | 5227 | 5247¹⁾ | 5264 | 5248¹⁾ | 5242 | 5243 | 5262 | 5249 | 5267 | 5268 | 5227 | | | |
| boring Ø x L in mm | 12.5 x 42 | | 11.5 x 50 | | 11 x 44 | 12.5 x 42 | 12.5 x 86 | 16 x 50 | 17.5 x 86 | 26 x 86 | 36 x 86 | 45.5 x 86 | 42 x 86 | 11 x 44 | 13.5 x 52 | 12.5 x 42 | |
| tubes per rotor | 240 | | 96 | | 120 | 120 | 120 | 72 | 72 | 30 | 12 | 6 | 6 | 120 | 72 | 120 | |
| max. RCF ²⁾ upper/lower | 2,486/3,363 | | 3,363 | | 3,274 | 3,309 | 3,291 | 3,309 | | | 3,291 | | | 3,274 | 3,345 | 3,309 | |
| radius in mm upper/lower | 139/188 | | 188 | | 183 | 185 | 184 | 185 | | | 184 | | | 183 | 187 | 185 | |
| run-up in sec | 45 | | | | | | | | | | | | | | | | |
| run-down in sec, braked | 55 | | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | 0 | | | | | | | | | | | | | | | | |

| capacity in ml | 4–5.5 | 4.5–5 | 4.9 | 7.5–8.5 | 9–10 | 10 | 1.6–5 | 4–7 | 4–7 | 8.5–10 | 15 | 50 | 12 | 30 | 50 | two-tier frame for cyto accessories | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Ø x L in mm | 15 x 75 | 11 x 92 | 13 x 90 | 15 x 92 | 16 x 92 | 15 x 102 | 13 x 75 | 16 x 75 | 13 x 100 | 16 x 100 | 17 x 120 | 29 x 115 | 17 x 100 | 25 x 110 | 29 x 115 | | |
| Cat. No. | blood collection/urine tubes | | | | | | | | | | | 0509 | 0513 | - | - | cyto chambers¹⁰⁾ | |
| lid Cat. No. 5053  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |
| Cat. No. | 5264 | 5227 | 5268 | 5264 | 5258 | 5268 | 5264 | 5268 | 5248 | 6306 | 5259 | 6306 | 5266 | 5243 | 5280 | | |
| boring Ø x L in mm | 16 x 50 | 12.5 x 42 | 13.5 x 52 | 16 x 50 | 17.6 x 86 | 13.5 x 52 | 16 x 50 | 13.5 x 52 | 17.5 x 86 | 17 x 90 | 30 x 86 | 17 x 90 | 26 x 86 | 36 x 86 | - | | |
| tubes per rotor | 72 | 120 | 72 | 72 | 66 | | | 72 | | 42 | 12 | 42 | 30 | 12 | 12 | | |
| max. RCF ²⁾ | 3,309 | 3,309 | 3,345 | 3,309 | 3,291 | 3,345 | 3,309 | 3,345 | 3,291 | 3,434 | 3,363 | 3,434 | 3,291 | 3,291 | 2,290/3,291 | | |
| radius in mm | 185 | 185 | 187 | 185 | 184 | 187 | 185 | 187 | 184 | 192 | 188 | 192 | 184 | 184 | 128/184 | | |
| run-up in sec | 45 | | | | | | | | | | | | | | | | |
| run-down in sec, braked | 55 | | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | 0 | | | | | | | | | | | | | | | | |

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.

³⁾ When using these tubes, carrier 5092 resp. 5051 cannot be closed with lid 5093 resp. 5053.

ROTORS AND ACCESSORIES



illustrated with carriers 5092
and lids 5093
with bio-containment⁵⁾

Swing-out rotor 4446

| | | | | | | | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------|-------------|-------------|-------------|
| capacity in ml | 5 | 6 | 7 | 10 | 15 | 25 | 50 | 100 | 100 | 250 | 1.1–1.4 | 1.1–1.4 | 2.6–3.4 | 2.6–3.4 |
| Ø x L in mm | 12x75 | 12x82 | 12x100 | 17x70 | 17x100 | 24x100 | 34x100 | 44x100 | 40x115 | 65x115 | 8x66 | 8x66 | 13x65 | 13x65 |
| Cat. No. | 0553²⁾ | 0501²⁾ | 0578²⁾ | 2079 | 0518²⁾ | 0519²⁾ | 0521²⁾ | 0526²⁾ | 0523²⁾ | 0530²⁾ | blood collection tubes | | | |
| lid with bio-containment ⁵⁾ Cat. No. 5093 | | | | | | | | | | | | | | |
| carrier Cat. No. 5092 | | | | | | | | | | | | | | |
| Cat. No. | 5128 | 5120 | 5136 | 5122 | 5124 | 5125 | 5126 | 1791 | 5137 | 5138 | 5137 | 5138 | 5137 | 5138 |
| boring Ø x L in mm | 12.8x45 | 12.8x82 | 17.5x60.7 | 25.5x82 | 35.5x82.5 | 45.5x85 | 42x85 | 66x103 | 13.5x60.7 | 12.8x54.5 | 13.5x60.7 | 12.8x54.5 | 13.5x60.7 | 12.8x54.5 |
| tubes per rotor | 72 | 72 | 48 | 24 | 6 | | 6 | 6 | 48 | 72 | 48 | 72 | 48 | 72 |
| max. RCF ²⁾ | 3,542 | 3,542 | 3,488 | 3,434 | 3,488 | | 3,631 | 3,488 | 3,077 | 3,488 | 3,077 | 3,488 | 3,077 | 3,488 |
| radius in mm | 198 | 198 | 195 | 192 | 195 | | 203 | 195 | 172 | 195 | 172 | 195 | 172 | 195 |
| run-up in sec | 45 | | | | | | | | | | | | | |
| run-down in sec, braked | 55 | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | 0 | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| capacity in ml | 2.7–3 | 2.7–3 | 4.9 | 4–5.5 | 4.5–5 | 7.5–8.5 | 9–10 | 10 | 1.6–5 | 1.6–5 | 4–7 | 4–7 | 8 | 8.5–10 |
| Ø x L in mm | 11x66 | 11x66 | 13x90 | 15x75 | 11x92 | 15x92 | 16x92 | 15x102 | 13x75 | 13x75 | 13x100 | 16x75 | 16x125 | 16x100 |
| Cat. No. | blood collection/urine tubes | | | | | | | | | | | | | |
| lid with bio-containment ⁵⁾ Cat. No. 5093 | | | | | | | | | | | | | | |
| carrier Cat. No. 5092 | | | | | | | | | | | | | | |
| Cat. No. | 5137 | 5138 | 5137 | 5136 | 5120 | 5136 | 5136 | 5137 | 5138 | 5120 | 5136 | 5121 | 5136 | 5136 |
| boring Ø x L in mm | 13.5x60.7 | 12.8x54.5 | 13.5x60.7 | 17.5x60.7 | 12.8x82 | 17.5x60.7 | 17.5x60.7 | 13.5x60.7 | 12.8x54.5 | 12.8x82 | 17.5x60.7 | 17.5x82 | 17.5x60.7 | 17.5x60.7 |
| tubes per rotor | 48 | 72 | 48 | 48 | 72 | 48 | 48 | 48 | 72 | 72 | 48 | 42 | 48 | 48 |
| max. RCF ²⁾ | 3,488 | 3,077 | 3,488 | 3,488 | 3,542 | 3,488 | 3,488 | 3,488 | 3,077 | 3,542 | 3,488 | 3,542 | 3,488 | 3,488 |
| radius in mm | 195 | 172 | 195 | 195 | 198 | 195 | 195 | 195 | 172 | 198 | 195 | 198 | 195 | 195 |
| run-up in sec | 45 | | | | | | | | | | | | | |
| run-down in sec, braked | 55 | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | 0 | | | | | | | | | | | | | |

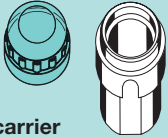









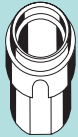









⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

¹⁰⁾ Please ask for our detailed cyto brochure.

¹¹⁾ With Cat. No. 5247-91 or 5248-91 these adapters can also be ordered with a decanting aid.

ROTORS AND ACCESSORIES

Swing-out rotor 4446

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|---|--|
| capacity in ml | 15 | 50 | 12 | 25 | 30 | 50 | 10 | 250 | 290 |
| Ø x L in mm | 17 x 120 | 29 x 115 | 17 x 100 | 25 x 90 | 25 x 110 | 29 x 115 | 16 x 80 | 61 x 122 | 62 x 137 |
| Cat. No. | 0509 | 0513 | - | - | - | - | - | 5127⁷⁾ | -⁷⁾ |
| lid with bio-containment ⁵⁾ Cat. No. 5093  |  |  |  |  |  |  |  |  |  |
| carrier Cat. No. 5092  |  |  |  |  |  |  |  |  |  |
| Cat. No. | 5129 | 5123 | 5121 | 5134 | 5122 | 5135 | 5136 | 6319 | |
| boring Ø x L in mm | 17 x 85 | 30 x 85 | 17.5 x 82 | 26 x 73 | 25.5 x 82 | 30 x 99 | 17.5 x 60.7 | 66 x 103 | |
| tubes per rotor | 42 | 12 | 42 | 18 | 24 | 12 | 48 | 6 | |
| max. RCF ²⁾ | 3,631 | | 3,542 | 3,363 | 3,434 | 3,560 | 3,488 | 3,631 | |
| radius in mm | 203 | | 198 | 188 | 192 | 199 | 195 | 203 | |
| run-up in sec | 45 | | | | | | | | |
| run-down in sec, braked | 55 | | | | | | | | |
| temperature in °C ¹⁾ | 0 | | | | | | | | |

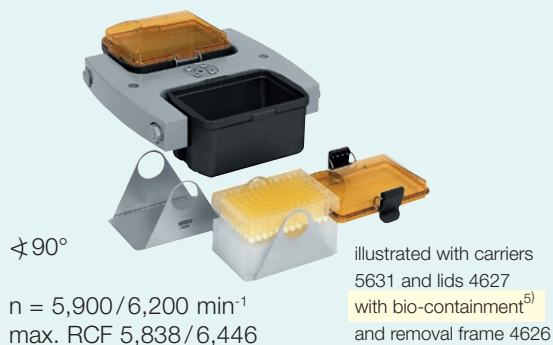
¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.

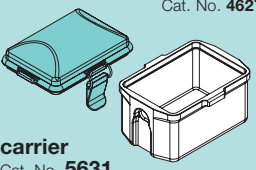

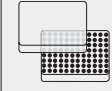
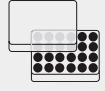






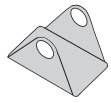
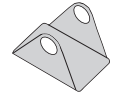

³⁾ When using these tubes, carrier 5092 cannot be closed with lid 5093.

ROTORS AND ACCESSORIES

Swing-out rotor, 2-place



Cat. No. (without carriers) **5622**











| | | | | | | | | | |
|---|--|---|---|---|---|---|---|--|--|
| D x W x H in mm | 86 x 128 x 15 | 86 x 128 x 17.5 | 86 x 128 x 22 | 86 x 128 x 44.5 | 86 x 128 x 46 | 86 x 128 x 83 | 59 x 84 x 11 | 82 x 124 x 20 | - |
| capacity in ml | - | | | | | | | | 0.2 |
| Cat. No. | MTP | | CP | DWP | MS | QP | Microtest plate (Terasaki) | PCR plate, 96 wells | PCR strips |
|  <p>lid with bio-containment⁵⁾ Cat. No. 4627</p> <p>carrier Cat. No. 5631</p> |  |  |  |  |  |  |  |  |  |
| |  | | | | | | |  |  |
| Cat. No. | 4626 | | | | | | | 4626 + 1485 | |
| boring \varnothing x L in mm | - | | | | | | | | |
| plates/Strips pro rotor | 12 | 10 | 8 | 2 | | 4 | 2 | 24 x 8 | |
| max. RCF ²⁾ classic/cooled | 5,838/6,446 | | | | | | | | |
| radius in mm | max. 150 | | | | | | | | |
| run-up in sec classic/cooled | 50/52 | | | | | | | | |
| run-down in sec, braked classic/cooled | 32/39 | | | | | | | | |
| temperature in °C ¹⁾ | +12 | | | | | | | | |

















⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

⁷⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

ROTORS AND ACCESSORIES

| | |
|---|---|
| <p>Angle rotor, 30-place</p>  <p>↘ 45°</p> <p>n = 15,000 min⁻¹ max. RCF 24,400</p> <p style="background-color: #fff9c4; padding: 2px;">with bio-containment⁵⁾</p> <p>Cat. No. 4489-A</p> | <p>Angle rotor, 6-place</p>  <p>↘ 25°</p> <p>n = 8,500/9,500 min⁻¹ max. RCF 11,228 / 14,025</p> <p style="background-color: #fff9c4; padding: 2px;">with bio-containment⁵⁾</p> <p>Cat. No. 5645</p> |
|---|---|

| | | | | | | | |
|--|--|--|---|---|---|---|--|
| capacity in ml | 0.2 | 0.4 | 0.5 | 0.8 | 1.5 | 2.0 | 0.5 |
| Ø x L in mm | 6x18 | 6x45 | 8x30 | 8x45 | 11x38 | | 10.7x36 |
| Cat. No. | - | | | | 2078 | 0536 | Pediatric |
| lid with bio-containment ⁵⁾ incl. |  |  |  |  |  |  |  |
| rotor Cat. No. 4489-A |  |  | | | | |  |
| Cat. No. | 2024 | 2023 | 2031 ¹²⁾ | - | 0788 | | |
| boring Ø x L in mm | 6x40 | 8x40 | 10.2x19 | 11.2x40.1 | 11.2x40.1 | | |
| tubes per rotor | 30 | | | | | | 15 |
| max. RCF ²⁾ | 24,400 | | | | | | 23,394 |
| radius in mm | 97 | | | | | | 93 |
| run-up in sec | 73 | | | | | | |
| run-down in sec, braked | 77 | | | | | | |
| temperature in °C ¹⁾ | +7 | | | | | | |

| | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|
| capacity in ml | 15 | 25 | 94 | 10 | 30 | 50 | 85 | 94 | 250 |
| Ø x L in mm | 17x100 | 24x100 | 38x102 | 16x80 | 26x95 | 29x107 | 38x106 | 38x102 | 61x122 |
| Cat. No. | 0518 ²⁾ | 0519 ²⁾ | 0549 | - | 0545 | 0546 | 0547 | 0538 ⁶⁾ | 5127 ⁷⁾ |
| lid with bio-containment ⁵⁾ incl. |  |  |  |  |  |  |  |  |  |
| rotor Cat. No. 5645 |  |  |  |  |  |  |  | | |
| Cat. No. | 5646 | 5642 | 5644 | 5641 | 5642 | 5643 | 5644 | - | |
| boring Ø x L in mm | 17.6x83 | 26x80 | 38.6x88 | 16.6x70 | 26x80 | 29x90 | 38.6x88 | | 61.5x109 |
| tubes per rotor | 42 | 18 | 6 | 48 | 18 | 6 | 6 | | 6 |
| max. RCF ²⁾ classic/cooled | 10,662/ 13,319 | 10,339/ 12,915 | 9,855/ 12,310 | 10,743/ 13,420 | 10,339/ 12,915 | 9,693/ 12,108 | 9,855/ 12,310 | | 11,228/ 14,025 |
| radius in mm | 132 | 128 | 122 | 133 | 128 | 120 | 122 | | 139 |
| run-up in sec classic/cooled | 98/ 115 | | | | | | | | |
| run-down in sec, braked classic/cooled | 105/ 120 | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | |

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000.

⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

ROTORS AND ACCESSORIES

Angle rotor, 6-place



±45°

n = 11.500 min⁻¹
max. RCF 18.038

with bio-containment⁵⁾

Cat. No. 5615

| capacity in ml | 1.5 | 2.0 | 3 | 15 | 25 | 50 | 75 | 94 | 7.5–8.5 | 9–10 | 10 | 8.5–10 | 5 | 15 | 50 | |
|---|-------------|-------------|-------------|--------------------------|--------------------------|--------------------------|-------------|-------------|--------------------------|-------------|-------------|--------|--------|-------------|-------------|--|
| Ø x L in mm | 11x38 | | 10x60 | 17x100 | 24x100 | 34x100 | 35x105 | 38x102 | 15x92 | 16x92 | 15x102 | 16x100 | 17x59 | 17x120 | 29x115 | |
| Cat. No. | 2078 | 0536 | - | 0518²⁾ | 0519²⁾ | 0521²⁾ | 0548 | 0549 | blood/urine tubes | | | | - | 0509 | 0513 | |
| lid with bio-containment ⁵⁾ incl. | | | | | | | | | | | | | | | | |
| rotor Cat. No. 5615 | | | | | | | | | | | | | | | | |
| Cat. No. | 1449 | | 1451 | 1447 | 1463 | 1463 | - | 1451 | 1476 | 1466 | 1454 | | | | | |
| boring Ø x L in mm | 11.4x39 | | 17.5x92 | 26x85 | 35x89 | 35x89 | 38.2x89.6 | 17.5x92 | | | | 17x51 | 17x106 | 29.8x97 | | |
| tubes per rotor | 24 | | 6 | | | | | | 6 | | | | 6 | | | |
| max. RCF ²⁾ | 17,299 | | 17,003 | 16,560 | 17,743 | 17,743 | 18,038 | 17,003 | | | | 16,856 | 17,299 | 17,595 | | |
| radius in mm | 117 | | 115 | 112 | 120 | 120 | 122 | 115 | | | | 114 | 117 | 119 | | |
| run-up in sec | 66 | | | | | | | | | | | | | | | |
| run-down in sec. braked | 68 | | | | | | | | | | | | | | | |
| temperature in °C ¹⁾ | +4 | | | | | | | | | | | | | | | |

| capacity in ml | 10 | 30 | 50 | 85 | 94 |
|---|-------------|-------------|-------------|-------------|--------------------------|
| Ø x L in mm | 16x80 | 26x95 | 29x107 | 38x106 | 38x102 |
| Cat. No. | - | 0545 | 0546 | 0547 | 0538⁶⁾ |
| lid with bio-containment ⁵⁾ incl. | | | | | |
| rotor Cat. No. 5615 | | | | | |
| Cat. No. | 1448 | 1447 | 1446 | - | |
| boring Ø x L in mm | 16.5x74 | 26x85 | 29x92 | 38.2x89.6 | |
| tubes per rotor | 12 | 6 | | | |
| max. RCF ²⁾ | 17,003 | 16,560 | 17,299 | 18,038 | |
| radius in mm | 115 | 112 | 117 | 122 | |
| run-up in sec | 66 | | | | |
| run-down in sec. braked | 68 | | | | |
| temperature in °C ¹⁾ | +4 | | | | |

⁶⁾ The screw cap for tube No. 0538 is available with Cat. No. 0539. Dimensions with cap 38 x 110 mm.

⁷⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

¹²⁾ For centrifugation at high speeds, we recommend to use form-fitting, phenol-resistant adapters 2031.

ROTORS AND ACCESSORIES

Angle rotor, 14-place



↘ 36°

n = 9,000/10,000 min⁻¹
max. RCF 14,127/17,441

with bio-containment⁵⁾

Cat. No. 5655

Angle rotor, 6-place, for Schlenk tubes



↘ 45°

n = 2.000 min⁻¹
max. RCF 805

Cat. No. 5616¹⁶⁾

| | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|---------|----------|----------|-----------------------|-----------------------|-----------------------|
| capacity in ml | 15 | 25 | 7.5–8.5 | 9–10 | 10 | 8.5–10 | 15 | 50 | 30 |
| Ø x L in mm | 17 x 100 | 24 x 100 | 15 x 92 | 16 x 92 | 15 x 102 | 16 x 100 | 17 x 120 | 29 x 115 | 26 x 95 |
| Cat. No. | 0518²⁾ | 0519²⁾ | blood/urine tubes | | | | 0509 | 0513 | 0545 |
| lid with bio-containment ⁵⁾ incl. | | | | | | | | | |
| rotor Cat. No. 5655 | | | | | | | | | |
| Cat. No. | 1473 | 1472 | 1473 | | | | 1474 | - | 1472 |
| boring Ø x L in mm | 17.5 x 91.5 | 26 x 85 | 17.5 x 91.5 | | | | 17 x 107 | 30 x 100 | 26 x 85 |
| tubes per rotor | 14 | | | | | | | | |
| max. RCF ²⁾ classic/cooled | 13,493/ 16,658 | 13,131/ 16,211 | 13,493/ 16,658 | | | | 13,765/ 16,994 | 14,127/ 17,441 | 13,131/ 16,211 |
| radius in mm | 149 | 145 | 149 | | | | 152 | 156 | 145 |
| run-up in sec classic/cooled | 124/ 145 | | | | | | | | |
| run-down in sec, braked classic/cooled | 94/ 108 | | | | | | | | |
| temperature in °C ¹⁾ | +16 | | | | | | | | |

| | | |
|--|-------------|-------------|
| capacity in ml | 25 | 50 |
| Ø x L in mm | 24 x 146.5 | 38 x 148.5 |
| Cat. No. | 0532 | 0533 |
| rotor Cat. No. 5616¹⁶⁾ | | |
| Cat. No. | 4317 | - |
| boring Ø x L in mm | 25 x 86 | 38.5 x 89.9 |
| tubes per rotor | 6 | |
| max. RCF | 783 | 805 |
| radius in mm | 175 | 180 |
| run-up in sec | 17 | |
| run-down in sec, braked | 21 | |
| temperature in °C ¹⁾ | -14 | |

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

²⁾ Please be aware that sample material will warm to + 40 °C when centrifuging it for 20 minutes at max. speed in rotor 5655 in the air-cooled ROTANTA 460.

¹⁶⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote ²⁾ is 4,000, for ASTM tubes it is 700.

ROTORS AND ACCESSORIES

Swing-out rotor, 4-place, for ASTM tubes + 1 Babcock bottle



±90°

n = 2,000 min⁻¹
max. RCF 984

Cat. No. (without carriers) **4474**

Swing-out rotor, 6-place, for chrome bath tubes



±90°

n = 2,000 min⁻¹
max. RCF 917

Cat. No. **4619**¹⁶⁾

| capacity in ml | 50 | 100 | 100 | 100 | 50 |
|--------------------------------------|-----------------|---------------------------|-----------------|---------------------------|-------------|
| Ø x L in mm | 45 x 130 | 58 x 161 | 44 x 168 | 37 x 200 | 36,5 x 185 |
| Cat. No. | - ²⁾ | 0528 ²⁾ | - ²⁾ | 0531 ²⁾ | - |
| carrier Cat. No. 4275 | | | | | |
| rotor Cat. No. 4474 | | | | | |
| Cat. No. | 4278-A | 0771 | 4277 | 4276 | 0703 |
| boring Ø x L in mm | - | | | | |
| tubes per rotor | 4 | | | | |
| max. RCF ²⁾ | 984 | | 961 | | 912 |
| radius in mm | 220 | | 215 | | 204 |
| run-up in sec | 17 | | | | |
| run-down in sec, braked | 20 | | | | |
| temperature in °C ¹⁾ | -8 | | | | |



| capacity in ml | 30 |
|---|---------------------------------|
| Ø x L in mm | 24 x 151 |
| Cat. No. | 0529/0508 ¹³⁾ |
| rotor Cat. No. 4619 ¹⁶⁾ | |
| Cat. No. | - |
| boring Ø x L in mm | - |
| tubes per rotor | 6 |
| max. RCF | 917 |
| radius in mm | 205 |
| run-up in sec | 17 |
| run-down in sec, braked | 21 |
| temperature in °C ¹⁾ | -11 |

⁵⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

¹³⁾ The tube may not be centrifuged with the stopper. The stopper only serves to close the tube for agitating or mixing.

¹⁶⁾ In the heatable models 5660-50, 5660-51, 5660-70, 5670-50 and 5675-50, rotors 4619 and 5616 may only be used up to a maximum of + 40 °C.

ROTANTA 460/460 R

| TECHNOLOGY | ROTANTA 460 | | ROTANTA 460 R ^{*)} | | |
|--|--|--------------------|-----------------------------|--------------------|-----------|
| Benchtop centrifuge, without rotor | classic | | cooled | | |
| Power supply ^{*)} | 200 – 240 V 1 ~ | 100 – 127 V 1 ~ | 200 – 240 V 1 ~ | 100 – 127 V 1 ~ | 100 V 1 ~ |
| Frequency | 50 – 60 Hz | | 50 Hz | 60 Hz | 50 Hz |
| Consumption | 1,000 VA | 1,100 VA | 1,800 VA | 2,000 VA | |
| Emission, Immunity | EN / IEC 61326-1, class B | FCC class B | EN / IEC 61326-1, class B | FCC class B | |
|  Max. capacity | 4 x 750 ml | | | | |
|  Max. RPM (speed) | 15,000 min ⁻¹ | | | | |
| Max. RCF | 24,400 | | | | |
| Running time | 1 sec - 99 h : 59 min : 59 sec, ∞ continuous run, short cycle mode | | | | |
| Dimensions (HxWxD) | 456 x 554 x 706 mm | 456 x 554 x 715 mm | 456 x 770 x 706 mm | 456 x 770 x 715 mm | |
| Weight | approx. 101 kg | approx. 111 kg | approx. 141 kg | approx. 151 kg | |
| Refrigeration | | | | | |
| Temperature control, infinitely variable | - | | from -20 to +40 °C | | |
| Cat. No. | 5650 | 5650-01 | 5660 | 5660-01 | |

| TECHNOLOGY | ROTANTA 460 RC ^{*)} | ROTANTA 460 RF ^{*)} |
|---|---|--|
| | Underbench centrifuge, cooled, without rotor | Floorstanding centrifuge, cooled, without rotor |
| Power supply ^{*)} | 200 – 240 V 1 ~ | |
| Frequency | 50 Hz | |
| Consumption | 1,800 VA | |
| Emission, Immunity | EN / IEC 61326-1, class B | |
| Dimensions (HxWxD) | 683 x 554 x 697 mm | 961 x 554 x 697 mm |
| Weight | approx. 140 kg | approx. 164 kg |
| Temperature control, infinitely variable | from -20 to +40 °C | |
| The other values are identical with those of the ROTANTA 460 R | | |
| Cat. No. | 5670 | 5675 |

^{*)} Other voltages on request.
^{*)} Additional model variants on request.



Hettich centrifuges comply with all relevant EU standards in effect and conform to the European level of quality and safety for medical devices. Evidence is provided by national and international test marks such as IEC 61010 or the CE conformity. The ISO 9001, ISO 13485 and ISO 14001 certificates accredited to the company bear witness to the extreme care and responsibility Hettich puts into the manufacturing of centrifuges and their accessories.



Our certification as an “Authorized Economic Operator” enables accelerated customs clearance.



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