

Floorstanding centrifuges

# ROTO SILENTA 630 RS

Your first choice up to 12 liters

The ROTO SILENTA 630 RS is highly rated in the rapid and efficient centrifugation of blood bags. It is able to spin up to 12 liters of sample or 12 blood bags per run. Four and six-place rotor options are also available to offer the best possible fit. In industrial or R&D settings the ROTO SILENTA accommodates six vessels up to 2,000 ml each.

This unit includes refrigeration with a temperature range from -20°C to +40°C.



## — Highlights

- RPM: 50 - 6,000 min<sup>-1</sup>  
Adjustable in increments of 10
- RCF: 50 - 6,520  
Adjustable in increments of 1
- max. Capacity: 6 x 2,000 ml
- the first choice in blood banking centrifuges
- choice of 3 rotors
- Medical device according to regulation (EU) 2017/745
- easy operation with keypad and control knob
- 89 program memories for more individuality
- 9 acceleration + 19 deceleration stages
- coolable from -20 bis +40 °C with pre-cooling function
- data reporting system (optional)

## — Features

- metal housing and lid
- large viewing port in the lid
- powered lid lock
- lid dropping protection
- emergency lid lock release
- stainless steel chamber
- automatic rotor recognition
- brushless drive
- error display
- display in °C and °F possible
- imbalance detection and switch-off

## Technical data

### ROTO SILENTA 630 RS refrigerated

|                                          |                                     |
|------------------------------------------|-------------------------------------|
| voltage *)                               | 400 V 3 ~ + N                       |
| frequency                                | 50 – 60 Hz                          |
| consumption                              | 9,700 VA                            |
| emission, immunity                       | EN/IEC 61326-1, class B             |
| max. capacity                            | 6 x 2,000 ml                        |
| max. RPM                                 | 6,000 min <sup>-1</sup>             |
| max. RCF                                 | 6,520                               |
| running time                             | 1 – 999 min: 59 s, ∞ continuous run |
| dimensions (WxDxH)                       | 813 x 1,015 x 973 mm                |
| weight                                   | approx. 355 kg                      |
| temperature control, infinitely variable | from -20 to +40 °C                  |
| <b>Cat. No.</b>                          | <b>5005</b>                         |

208 – 220 V +6 / -10 % 3- (+N) + PE,  
with internal transformer

|             |                |
|-------------|----------------|
| consumption | 9,000 VA       |
| weight      | approx. 401 kg |

\*) Other voltages on request.

| GMP versions        |                                                           | Power supply | Frequency | Cat. No.       |
|---------------------|-----------------------------------------------------------|--------------|-----------|----------------|
| ROTO SILENTA 630 RS | GMP, internal cooling unit<br>with water-cooled condenser | 400 V 3 ~ +N | 50–60 Hz  | <b>5005-80</b> |
| ROTO SILENTA 630 RS | GMP, external cooling unit                                | 400 V 3 ~ +N | 50–60 Hz  | <b>5005-90</b> |

## Available rotors

| SWING-OUT ROTORS                                                                    |                          | angle | max. RPM                | max. capacity | Cat. No.    | page |
|-------------------------------------------------------------------------------------|--------------------------|-------|-------------------------|---------------|-------------|------|
|  | swing-out rotor, 6-place | 90°   | 4,500 min <sup>-1</sup> | 6 x 2,000 ml  | <b>4176</b> | 3    |
|                                                                                     | swing-out rotor, 4-place | 90°   | 4,500 min <sup>-1</sup> | 4 x 1,600 ml  | <b>4174</b> | 3    |
| ANGLE ROTORS                                                                        |                          |       |                         |               |             |      |
|  | angle rotor, 6-place     | 25°   | 6,000 min <sup>-1</sup> | 6 x 250 ml    | <b>4570</b> | 9    |

## — Swing-out rotor, 6- / 4-place | 4176 / 4174

|                                         |                   |                                                                                   |   |                 |                                                                                    |
|-----------------------------------------|-------------------|-----------------------------------------------------------------------------------|---|-----------------|------------------------------------------------------------------------------------|
|                                         |                   |  |   |                 |  |
| <b>Rotor</b>                            |                   |                                                                                   | + | <b>Bucket</b>   |                                                                                    |
| max. RPM                                |                   | 4,500 min <sup>-1</sup>                                                           |   | <b>Cat. No.</b> | <b>4524-A</b>                                                                      |
| max. RCF                                | Rotor 4176 / 4174 | 6,498 / 5,683                                                                     |   |                 |                                                                                    |
| max. capacity                           |                   | 12 / 8 blood bag                                                                  |   |                 |                                                                                    |
| run-up   run-down, braked in sec        |                   | 125   197                                                                         |   |                 |                                                                                    |
| angle   temperature in °C <sup>1)</sup> |                   | 90°   +16 / +10                                                                   |   |                 |                                                                                    |
| <b>Cat. No.</b>                         |                   | <b>4176 / 4174</b>                                                                |   |                 |                                                                                    |



|                             |                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------|-------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                             |                   |  |  |  |
| <b>Blood bag</b>            |                   |                                                                                   |                                                                                   |                                                                                   |
| capacity in ml              |                   | 500                                                                               | 500                                                                               | 750                                                                               |
| blood bag per system        |                   | 4-place                                                                           | 4-place                                                                           | 1-place                                                                           |
| max. RCF <sup>26)</sup>     | Rotor 4176 / 4174 | 6,498 / 5,683                                                                     | 6,498 / 5,683                                                                     | 6,498 / 5,683                                                                     |
| radius in mm                |                   | 287 / 251                                                                         | 287 / 251                                                                         | 287 / 251                                                                         |
|                             |                   |  |  |  |
| <b>Insert</b>               |                   |                                                                                   |                                                                                   |                                                                                   |
| boring Ø x L in mm          |                   | -                                                                                 | -                                                                                 | -                                                                                 |
| blood bag systems per rotor |                   | 12 / 8                                                                            | 12 / 8                                                                            | 12 / 8                                                                            |
| <b>Cat. No.</b>             |                   | <b>4529<sup>26)</sup>-AO,-AM,-AU</b>                                              | <b>4592-B</b>                                                                     | <b>4592-B</b>                                                                     |

+ Additional blood bank accessories can be found on [page 10](#)

## — Swing-out rotor, 6- / 4-place | 4176 / 4174

|                                         |                   |                                                                                     |   |                 |                                                                                      |
|-----------------------------------------|-------------------|-------------------------------------------------------------------------------------|---|-----------------|--------------------------------------------------------------------------------------|
|                                         |                   |  |   |                 |  |
| <b>Rotor</b>                            |                   |                                                                                     | + | <b>Bucket</b>   |                                                                                      |
| max. RPM                                |                   | 4,500 min <sup>-1</sup>                                                             |   | <b>Cat. No.</b> | <b>4546-A</b>                                                                        |
| max. RCF                                | Rotor 4176 / 4174 | 6,271 / 5,479                                                                       |   |                 |                                                                                      |
| max. capacity                           |                   | 12 / 8 blood bag                                                                    |   |                 |                                                                                      |
| run-up   run-down, braked in sec        |                   | 125   197                                                                           |   |                 |                                                                                      |
| angle   temperature in °C <sup>1)</sup> |                   | 90°   +10 / 0                                                                       |   |                 |                                                                                      |
| <b>Cat. No.</b>                         |                   | <b>4176 / 4174</b>                                                                  |   |                 |                                                                                      |



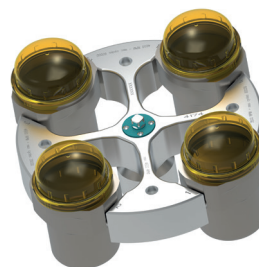
|                             |                   |                                                                                     |
|-----------------------------|-------------------|-------------------------------------------------------------------------------------|
|                             |                   |  |
| <b>Blood bag</b>            |                   |                                                                                     |
| capacity in ml              |                   | 450                                                                                 |
| blood bag per system        |                   | 4-place                                                                             |
| max. RCF                    | Rotor 4176 / 4174 | 6,271 / 5,479                                                                       |
| radius in mm                |                   | 277 / 242                                                                           |
|                             |                   |  |
| <b>Insert</b>               |                   |                                                                                     |
| boring Ø x L in mm          |                   | -                                                                                   |
| blood bag systems per rotor |                   | 12 / 8                                                                              |
| <b>Cat. No.</b>             |                   | <b>4559-A</b>                                                                       |

+ Additional blood bank accessories can be found on [page 10](#)

- 1) For cooled versions: Lowest temperature achievable with precooling and max. speed.
- 26) Includes blood bag hanging to prevent erythrocyte accumulation at low speeds. Different hanging heights allow customer-specific adjustments. (4529-AO top, 4529-AM center, 4529-AU bottom). Hanging blood bags may be centrifuged with a maximum RCF of 1,000.

## Swing-out rotor, 6- / 4-place | 4176 / 4174

|                                                                                   |                         |                                                                                    |        |
|-----------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------|--------|
|  |                         |  |        |
| <b>Rotor</b>                                                                      |                         | <b>Bucket</b>                                                                      |        |
| max. RPM                                                                          | 4,500 min <sup>-1</sup> | <b>Cat. No.</b>                                                                    | 4591-A |
| max. RCF Rotor 4176 / 4174                                                        | 6,498 / 5,705           |                                                                                    |        |
| max. capacity                                                                     | 12 / 8 blood bag        |                                                                                    |        |
| run-up   run-down, braked in sec                                                  | 125   197               |                                                                                    |        |
| angle   temperature in °C <sup>1)</sup>                                           | 90°   +16 / +10         |                                                                                    |        |
| <b>Cat. No.</b>                                                                   | 4176 / 4174             |                                                                                    |        |



|                                                                                   |               |                                                                                   |                                                                                   |
|-----------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|  |               |  |  |
| <b>Blood bags</b>                                                                 |               |                                                                                   |                                                                                   |
| capacity in ml                                                                    | 450           | 500                                                                               | 750                                                                               |
| blood bag per system                                                              | 3-place       | 4-place                                                                           | 1-place                                                                           |
| max. RCF Rotor 4176 / 4174                                                        | 6,271 / 5,705 | 6,498 / 5,705                                                                     | 6,498 / 5,705                                                                     |
| radius in mm                                                                      | 287 / 252     | 287 / 251                                                                         | 287 / 251                                                                         |
|  |               |  |  |
| <b>Insert</b>                                                                     |               |                                                                                   |                                                                                   |
| boring Ø x L in mm                                                                | -             | -                                                                                 | -                                                                                 |
| blood bag systems per rotor                                                       | 12 / 8        | 12 / 8                                                                            | 12 / 8                                                                            |
| <b>Cat. No.</b>                                                                   | 4598-A        | 4592-B                                                                            | 4592-B                                                                            |

+ Additional blood bank accessories can be found on [page 10](#)

## Swing-out rotor, 6- / 4-place | 4176 / 4174

|                                                                                     |                         |                                                                                      |                       |
|-------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------|-----------------------|
|  |                         |  |                       |
| <b>Rotor</b>                                                                        |                         | <b>Bucket</b>                                                                        |                       |
| max. RPM                                                                            | 3,500 min <sup>-1</sup> | <b>Cat. No.</b>                                                                      | 4595-C <sup>31)</sup> |
| max. RCF Rotor 4176 / 4174                                                          | 3,848 / 3,328           |                                                                                      |                       |
| max. capacity                                                                       | 6 x 2,000 ml            |                                                                                      |                       |
| angle   temperature in °C <sup>1)</sup>                                             | 90°   +16 / -12         |                                                                                      |                       |
| <b>Cat. No.</b>                                                                     | 4176 / 4174             |                                                                                      |                       |



|                                                                                     |                                 |
|-------------------------------------------------------------------------------------|---------------------------------|
|  |                                 |
| <b>Vessels</b>                                                                      |                                 |
| capacity in ml                                                                      | max. 1,600 <sup>35)</sup> 2,000 |
| W x D x H in mm                                                                     | - 150 x 100 x 180               |
| max. RCF Rotor 4176 / 4174                                                          | 3,821 / 3,328 3,848 / -         |
| radius in mm                                                                        | 279 / 243 281 / -               |
| run-up, in sec                                                                      | 95 / 131 95 / -                 |
| run-down, braked in sec                                                             | 131 / 131 41 / -                |
|  |                                 |
| <b>Insert</b>                                                                       |                                 |
| W x D x H in mm                                                                     | 145 x 91 x 146 -                |
| vessels per rotor                                                                   | 6 / 4 6 / -                     |
| <b>Cat. No.</b>                                                                     | 4596-A -                        |

- 1) For cooled versions: Lowest temperature achievable with precooling and max. speed.  
 24) At temperatures of over +40 °C and / or when not filled to capacity, bottles may warp during centrifugation.  
 31) Adapter for accommodating sample tubes and blood collection tubes in carrier 4595-C on request.  
 35) Depending on the sample.

## — Swing-out rotor, 6- / 4-place | 4176 / 4174

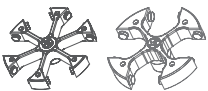
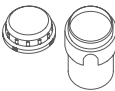
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|-----------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------|--------|
|  |                         |  |        |
| <b>Rotor</b>                                                                      |                         | <b>Bucket</b>                                                                      |        |
| max. RPM                                                                          | 4,500 min <sup>-1</sup> | Cat. No.                                                                           | 4523-A |
| max. RCF Rotor 4176 / 4174                                                        | 6,520 / 5,705           |                                                                                    |        |
| max. capacity                                                                     | 6 / 4 blood bag         |                                                                                    |        |
| run-up   run-down, braked in sec                                                  | 125   197               |                                                                                    |        |
| angle   temperature in °C <sup>1)</sup>                                           | 90°   +9 / +3           |                                                                                    |        |
| Cat. No.                                                                          | 4176 / 4174             |                                                                                    |        |

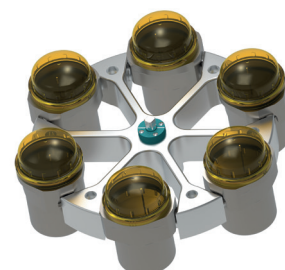


|                             |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                             | -                                                                                 | -                                                                                 | -                                                                                 |
|                             |  |  |  |
| <b>Blood bags</b>           |                                                                                   |                                                                                   |                                                                                   |
| capacity in ml              | 500                                                                               | 750                                                                               | 1,000                                                                             |
| blood bag per system        | 4-place                                                                           | 1-place                                                                           | 1-place                                                                           |
| max. RCF Rotor 4176 / 4174  | 6,475 / 5,660                                                                     | 6,475 / 5,660                                                                     | 6,520 / 5,705                                                                     |
| radius in mm                | 285 / 250                                                                         | 285 / 250                                                                         | 288 / 252                                                                         |
|                             |  |  |                                                                                   |
| <b>Insert</b>               |                                                                                   |                                                                                   |                                                                                   |
| boring Ø x L in mm          | -                                                                                 | -                                                                                 | -                                                                                 |
| blood bag systems per rotor | 6 / 4                                                                             | 6 / 4                                                                             | 6 / 4                                                                             |
| Cat. No.                    | 4516-A                                                                            | 4516-A                                                                            | -                                                                                 |

+ Additional blood bank accessories can be found on [page 10](#)

## — Swing-out rotor, 6- / 4-place | 4176 / 4174

|                                                                                     |                         |                                                                                      |        |
|-------------------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------|--------|
|  |                         |  |        |
| <b>Rotor</b>                                                                        |                         | <b>Bucket</b>                                                                        |        |
| max. RPM                                                                            | 4,500 min <sup>-1</sup> | lid                                                                                  | 5621   |
| max. RCF Rotor 4176 / 4174                                                          | 6,316 / 5,524           | Cat. No.                                                                             | 4547-B |
| max. capacity                                                                       | 6 / 4 blood bag         |                                                                                      |        |
| run-up   run-down, braked in sec                                                    | 125   197               |                                                                                      |        |
| angle   temperature in °C <sup>1)</sup>                                             | 90°   +9 / -9           |                                                                                      |        |
| Cat. No.                                                                            | 4176 / 4174             |                                                                                      |        |



|                             |                                                                                     |                                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             | -                                                                                   | -                                                                                   |
|                             |  |  |
| <b>Blood bags</b>           |                                                                                     |                                                                                     |
| capacity in ml              | 500                                                                                 | 450                                                                                 |
| blood bag per system        | 4-place                                                                             | 3-place                                                                             |
| max. RCF Rotor 4176 / 4174  | 6,316 / 5,524                                                                       | 6,316 / 5,524                                                                       |
| radius in mm                | 279 / 244                                                                           | 279 / 244                                                                           |
|                             |  |  |
| <b>Insert</b>               |                                                                                     |                                                                                     |
| boring Ø x L in mm          | -                                                                                   | -                                                                                   |
| blood bag systems per rotor | 6 / 4                                                                               | 6 / 4                                                                               |
| Cat. No.                    | 4548                                                                                | 4548                                                                                |

+ Additional blood bank accessories can be found on [page 10](#)

1) For cooled versions: Lowest temperature achievable with precooling and max. speed.

## Swing-out rotor, 6- / 4-place | 4176 / 4174

### Rotor

|                                         |                                    |
|-----------------------------------------|------------------------------------|
| max. RPM                                | 4,500 min <sup>-1</sup>            |
| max. RCF                                | Rotor 4176 / 4174<br>6,294 / 5,501 |
| max. capacity                           | 6/4 x 1,000 ml                     |
| run-up   run-down, braked in sec        | 125   197                          |
| angle   temperature in °C <sup>1)</sup> | 90°   +4 / -11                     |
| Cat. No.                                | 4176 / 4174                        |

### Bucket

|                       |        |
|-----------------------|--------|
| adapter including lid | 4255   |
| Cat. No.              | 4579-A |



### Vessels

|                        |                   | 5             | 7             | 9             | 15            | 25            | 50            | 100           | 2.6–3.4       | 2.7–3         | 4–5.5         | 4.5–5         | 4.9           | 9–10          | 10            | 1.6–5         |
|------------------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| capacity in ml         |                   | 5             | 7             | 9             | 15            | 25            | 50            | 100           | 2.6–3.4       | 2.7–3         | 4–5.5         | 4.5–5         | 4.9           | 9–10          | 10            | 1.6–5         |
| Ø x L in mm            |                   | 12x75         | 12x100        | 14x100        | 17x100        | 24x100        | 34x100        | 44x100        | 13 x 65       | 11x66         | 15x75         | 11x92         | 13x90         | 16x92         | 15x102        | 13x75         |
| max. RCF <sup>2)</sup> | Rotor 4176 / 4174 | 5 750 / 4 935 | 5 750 / 4 935 | 5 886 / 5 094 | 5 886 / 5 094 | 5 615 / 4 845 | 5 705 / 4 890 | 5 683 / 4 867 | 5 750 / 4 935 | 5 750 / 4 935 | 5 886 / 5 094 | 5 750 / 4 935 | 5 750 / 4 935 | 5 886 / 5 094 | 5 886 / 5 094 | 5 750 / 4 935 |
| radius in mm           |                   | 254/218       | 254/218       | 260/225       | 260/225       | 248/214       | 252/216       | 251/215       | 254/218       | 254/218       | 260/225       | 254/218       | 254/218       | 260/225       | 260/225       | 254/218       |



### Adapter

|                    |           |           |           |           |         |         |         |           |           |           |           |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| boring Ø x L in mm | 13 x 58   | 13 x 58   | 17,5 x 60 | 17,5 x 60 | 26 x 72 | 36 x 79 | 45 x 78 | 13,5 x 58 | 13 x 58   | 17,5 x 60 | 13 x 58   | 13,5 x 58 | 17,5 x 60 | 17,5 x 60 | 13,5 x 58 |
| vessels per rotor  | 180 / 120 | 180 / 120 | 114 / 76  | 114 / 76  | 42 / 28 | 24 / 16 | 12 / 8  | 126 / 84  | 180 / 120 | 114 / 76  | 180 / 120 | 126 / 84  | 114 / 76  | 114 / 76  | 126 / 84  |
| Cat. No.           | 4433      | 4433      | 4434      | 4434      | 4438    | 4439    | 4442    | 4435      | 4433      | 4434      | 4433      | 4435      | 4434      | 4434      | 4435      |

### Vessels

|                        |                   | 4 – 7         | 4 – 7         | 8.5 – 10      | 15            | 50            | 25            | 30            | 10            | 250           | 290           | 650           | 750           | 1,000         | 1,000         | 175           |
|------------------------|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| capacity in ml         |                   | 4 – 7         | 4 – 7         | 8.5 – 10      | 15            | 50            | 25            | 30            | 10            | 250           | 290           | 650           | 750           | 1,000         | 1,000         | 175           |
| Ø x L in mm            |                   | 13x100        | 16x75         | 16x100        | 17x120        | 29x115        | 25x90         | 25 x 110      | 16 x 80       | 61 x 122      | 62 x 137      | 97 x 139      | 97 x 152      | 96 x 176      | 98 x 138      | 61 x 118      |
| max. RCF <sup>2)</sup> | Rotor 4176 / 4174 | 5 750 / 4 935 | 5 886 / 5 094 | 5 886 / 5 094 | 6 022 / 5 207 | 5 999 / 5 207 | 5 818 / 5 026 | 5 818 / 5 026 | 5 886 / 5 094 | 6 113 / 5 320 | 6 113 / 5 320 | 5 999 / 5 184 | 6 294 / 5 501 | 6 294 / 5 501 | 6 294 / 5 501 | 6 294 / 5 501 |
| radius in mm           |                   | 254 / 218     | 260 / 225     | 260 / 225     | 266 / 230     | 265 / 230     | 257 / 222     | 257 / 222     | 260 / 225     | 270 / 235     | 270 / 235     | 265 / 229     | 278 / 243     | 278 / 243     | 278 / 243     | 278 / 243     |



### Adapter

|                    |           |           |           |         |         |         |         |           |         |         |          |          |          |       |          |
|--------------------|-----------|-----------|-----------|---------|---------|---------|---------|-----------|---------|---------|----------|----------|----------|-------|----------|
| boring Ø x L in mm | 13,5 x 58 | 17,5 x 60 | 17,5 x 60 | 17 x 86 | 30 x 87 | 26 x 72 | 26 x 72 | 17,5 x 60 | 62 x 92 | 62 x 92 | 98 x 138 | 98 x 138 | 98 x 138 | -     | 61 x 118 |
| vessels per rotor  | 126 / 84  | 114 / 76  | 114 / 76  | 72 / 48 | 30 / 20 | 42 / 28 | 42 / 28 | 114 / 76  | 6 / 4   | 6 / 4   | 6 / 4    | 6 / 4    | 6 / 4    | 6 / 4 | 6 / 4    |
| Cat. No.           | 4435      | 4434      | 4434      | 4437    | 4441    | 4438    | 4438    | 4434      | 4443    | 4443    | 4258     | -        | -        | -     | 4440     |

### Vessels

|                        | Nalgene <sup>3.15)</sup> | Nunc <sup>3.15)</sup> | Falcon <sup>3.15)</sup> | Corning <sup>3.15)</sup> | Corning <sup>3.15)</sup> |
|------------------------|--------------------------|-----------------------|-------------------------|--------------------------|--------------------------|
| capacity in ml         | 175                      | 200                   | 225                     | 250                      | 500                      |
| Ø x L in mm            | 61.5x144                 | 60 x 130              | 61 x 137                | 60 x 162                 | 96 x 147                 |
| max. RCF <sup>2)</sup> | 6,294 / 5,501            | 6,294 / 5,501         | 6,294 / 5,501           | 6,294 / 5,501            | 6,294 / 5,501            |
| radius in mm           | 278 / 243                | 278 / 243             | 278 / 243               | 278 / 243                | 278 / 243                |



### Adapter

|                    |       |       |       |       |       |
|--------------------|-------|-------|-------|-------|-------|
| boring Ø x L in mm | -     | -     | -     | -     | -     |
| vessels per rotor  | 6 / 4 | 6 / 4 | 6 / 4 | 6 / 4 | 6 / 4 |
| Cat. No.           | 4430  | 4430  | 4440  | 4430  | 4449  |

- For cooled versions: Lowest temperature achievable with precooling and max. speed.
- 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.
- When using these tubes, carrier 4255 cannot be closed with its lid.
- At temperatures of over +40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

## Swing-out rotor, 6- / 4-place | 4176 / 4174



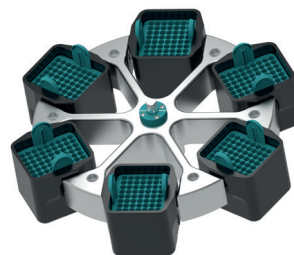
### Rotor

|                                         |                         |
|-----------------------------------------|-------------------------|
| max. RPM                                | 4,500 min <sup>-1</sup> |
| max. RCF Rotor 4176 / 4174              | 5,999 / 5,184           |
| max. capacity                           | 6 x 750 ml              |
| run-up   run-down, braked in sec        | 125   197               |
| angle   temperature in °C <sup>1)</sup> | 90°   +14 / -1          |
| <b>Cat. No.</b>                         | <b>4176 / 4174</b>      |



### Bucket

|                 |               |
|-----------------|---------------|
| <b>Cat. No.</b> | <b>4522-A</b> |
|-----------------|---------------|



### Vessels

|                            | tubes <sup>2)</sup> |               |               |               |               |               |               |               | blood collection / urine tubes |               |               |               |               |               |               |
|----------------------------|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| capacity in ml             | 4                   | 5             | 6             | 7             | 12            | 15            | 25            | 50            | 100                            | 2.6–3.4       | 2.7–3         | 4–5.5         | 4.5–5         | 7.5–8.2       | 9–10          |
| Ø x L in mm                | 10 x 88             | 12 x 75       | 12 x 82       | 12 x 100      | 16 x 101      | 17 x 100      | 24 x 100      | 34 x 100      | 40 x 115                       | 13 x 65       | 11 x 66       | 15 x 75       | 11 x 92       | 15 x 92       | 16 x 92       |
| max. RCF Rotor 4176 / 4174 | 5,818 / 5,003       | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003                  | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 |
| radius in mm               | 257 / 221           | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221                      | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     |



### Adapter

| boring Ø x L in mm | 11 x 70     | 12.5 x 32      | 12.5 x 70   | 12.5 x 70   | 16 x 70     | 17.5 x 70   | 26 x 70     | 35 x 70     | 41.5 x 70   | 13.2 x 32      | 12.5 x 32      | 17.5 x 32      | 12.5 x 70   | 17.5 x 70   | 17.5 x 70   |  |
|--------------------|-------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|----------------|----------------|-------------|-------------|-------------|--|
| vessels per rotor  | 378 / 252   | 288 / 192      | 288 / 192   | 288 / 192   | 150 / 100   | 180 / 120   | 66 / 44     | 36 / 24     | 24 / 16     | 180 / 120      | 288 / 192      | 180 / 120      | 288 / 192   | 180 / 120   | 96 / 64     |  |
| <b>Cat. No.</b>    | <b>4224</b> | <b>4213-93</b> | <b>4213</b> | <b>4213</b> | <b>4223</b> | <b>4214</b> | <b>4215</b> | <b>4216</b> | <b>4218</b> | <b>4222-93</b> | <b>4213-93</b> | <b>4214-93</b> | <b>4213</b> | <b>4214</b> | <b>4220</b> |  |

### Vessels

|                            | blood collection / urine tubes |               |               |               |               |               |               |               | tubes with screw cap |               |               |               | 5127 <sup>24)</sup> | - 24)         | 0551 <sup>24)</sup> | 0554 <sup>24)</sup> |
|----------------------------|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------------|---------------|---------------|---------------|---------------------|---------------|---------------------|---------------------|
| capacity in ml             | 10                             | 1.6–5         | 4–7           | 4–7           | 8             | 8.5–10        | 15            | 50            | 12                   | 30            | 50            | 250           | 290                 | 600           | 650                 |                     |
| Ø x L in mm                | 15 x 102                       | 13 x 75       | 16 x 75       | 13 x 100      | 16 x 125      | 16 x 100      | 17 x 120      | 29 x 115      | 17 x 100             | 25 x 110      | 29 x 115      | 61 x 122      | 62 x 137            | 93 x 134      | 97 x 139            |                     |
| max. RCF Rotor 4176 / 4174 | 5,818 / 5,003                  | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,818 / 5,003 | 5,999 / 5,184 | 5,999 / 5,184 | 5,818 / 5,003        | 5,818 / 5,003 | 5,909 / 5,094 | 5,818 / 5,003 | 5,818 / 5,003       | 5,999 / 5,184 | 5,999 / 5,184       |                     |
| radius in mm               | 257 / 221                      | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 257 / 221     | 265 / 229     | 265 / 229     | 257 / 221            | 257 / 221     | 261 / 225     | 257 / 221     | 257 / 221           | 265 / 229     | 265 / 229           |                     |



### Adapter

| boring Ø x L in mm | 17.5 x 70   | 13.2 x 32      | 17.5 x 32      | 13.2 x 70   | 16 x 70     | 17.5 x 70   | 17 x 70     | 30 x 70       | 17.5 x 70   | 26 x 70     | 30 x 96     | 62 x 90     | 62 x 90     | 94 x 105    | 97.5 x 105  |  |
|--------------------|-------------|----------------|----------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
| vessels per rotor  | 180 / 120   | 180 / 120      | 180 / 120      | 180 / 120   | 150 / 100   | 180 / 120   | 138 / 92    | 48 / 32       | 96 / 64     | 66 / 44     | 36 / 24     | 6 / 4       | 6 / 4       | 6 / 4       | 6 / 4       |  |
| <b>Cat. No.</b>    | <b>4214</b> | <b>4222-93</b> | <b>4214-93</b> | <b>4222</b> | <b>4223</b> | <b>4214</b> | <b>4232</b> | <b>4245-A</b> | <b>4220</b> | <b>4215</b> | <b>4249</b> | <b>4238</b> | <b>4238</b> | <b>4233</b> | <b>4258</b> |  |

### Vessels

|                            | 0512 <sup>24)</sup> | 4234-A        | Corning®      | Corning®      |
|----------------------------|---------------------|---------------|---------------|---------------|
| capacity in ml             | 750                 | 750           | 250           | 500           |
| Ø x L in mm                | 97 x 152            | 96 x 135      | 60 x 162      | 96 x 147      |
| max. RCF Rotor 4176 / 4174 | 5,999 / 5,184       | 5,999 / 5,184 | 5,818 / 5,003 | 5,999 / 5,184 |
| radius in mm               | 265 / 229           | 265 / 229     | 257 / 221     | 265 / 229     |



### Adapter

| boring Ø x L in mm | 97.5 x 105  | 97.5 x 105  | 60 x 125    | 97.5 x 105  |
|--------------------|-------------|-------------|-------------|-------------|
| vessels per rotor  | 6 / 4       | 6 / 4       | 6 / 4       | 6 / 4       |
| <b>Cat. No.</b>    | <b>4258</b> | <b>4258</b> | <b>6322</b> | <b>4258</b> |

- 1) For cooled versions: Lowest temperature achievable with precooling and max. 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.
- 24) At temperatures of over +40 °C and / or when not filled to capacity, bottles may warp during centrifugation.



## Swing-out rotor, 6- / 4-place | 4176 / 4174



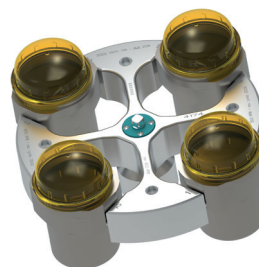
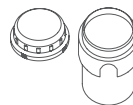
### Rotor

|                                         |                         |
|-----------------------------------------|-------------------------|
| max. RPM                                | 4,500 min <sup>-1</sup> |
| max. RCF Rotor 4176 / 4174              | 6,384 / 5,592           |
| max. capacity                           | 6 x 1,000 ml            |
| run-up   run-down, braked in sec        | 125   197               |
| angle   temperature in °C <sup>1)</sup> | 90°   +9 / -9           |
| <b>Cat. No.</b>                         | <b>4176 / 4174</b>      |



### Bucket

|                 |               |
|-----------------|---------------|
| lid             | 5621          |
| <b>Cat. No.</b> | <b>4547-B</b> |



### Vessels

|                        |                   | 5               | 7               | 9               | 15              | 25              | 50              | 100             | 2.6–3.4         | 2.7–3           | 4–5.5           | 4.5–5           | 4.9             | 7.5–8.2         | 9–10            | 10              |
|------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| capacity in ml         |                   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Ø x L in mm            |                   | 12x75           | 12x100          | 14x100          | 17x100          | 24x100          | 34x100          | 44x100          | 13 x 65         | 11x66           | 15x75           | 11x92           | 13x90           | 15x92           | 16x92           | 15x102          |
| max. RCF <sup>2)</sup> | Rotor 4176 / 4174 | 5,841/<br>5,026 | 5,841/<br>5,026 | 5,977/<br>5,184 | 5,977/<br>5,184 | 5,728/<br>4,913 | 5,773/<br>4,981 | 5,750/<br>4,958 | 5,841/<br>5,026 | 5,841/<br>5,026 | 5,977/<br>5,184 | 5,841/<br>5,026 | 5,841/<br>5,026 | 5,977/<br>5,184 | 5,977/<br>5,184 | 5,977/<br>5,184 |
| radius in mm           |                   | 258 / 222       | 258 / 222       | 264 / 229       | 264 / 229       | 253 / 217       | 255 / 220       | 254 / 219       | 258 / 222       | 258 / 222       | 264 / 229       | 258 / 222       | 258 / 222       | 264 / 229       | 264 / 229       | 264 / 229       |



### Adapter

|                    |           |           |           |           |         |         |         |           |           |           |           |           |           |           |           |
|--------------------|-----------|-----------|-----------|-----------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| boring Ø x L in mm | 13 x 58   | 13 x 58   | 17,5 x 60 | 17,5 x 60 | 26 x 72 | 36 x 79 | 45 x 78 | 13,5 x 58 | 13 x 58   | 17,5 x 60 | 13 x 58   | 13,5 x 58 | 17,5 x 60 | 17,5 x 60 | 17,5 x 60 |
| vessels per rotor  | 180 / 120 | 180 / 120 | 114 / 76  | 114 / 76  | 42 / 28 | 24 / 16 | 12 / 8  | 126 / 84  | 180 / 120 | 114 / 76  | 180 / 120 | 126 / 84  | 114 / 76  | 114 / 76  | 114 / 76  |
| Cat. No.           | 4433      | 4433      | 4434      | 4434      | 4438    | 4439    | 4442    | 4435      | 4433      | 4434      | 4433      | 4435      | 4434      | 4434      | 4434      |

### Vessels

|                                          | blood collection / urine tubes |               |               |               |               |               | tubes with screw cap |               |               |               | 5127 <sup>24)</sup> | - <sup>24)</sup> | 0554 <sup>24)</sup> | 0512 <sup>24)</sup> | 4239 <sup>24)</sup> |
|------------------------------------------|--------------------------------|---------------|---------------|---------------|---------------|---------------|----------------------|---------------|---------------|---------------|---------------------|------------------|---------------------|---------------------|---------------------|
| capacity in ml                           | 1.6–5                          | 4–7           | 4–7           | 8             | 8.5–10        | 15            | 50                   | 25            | 30            | 10            | 250                 | 290              | 650                 | 750                 | 1,000               |
| Ø x L in mm                              | 13x75                          | 13x100        | 16x75         | 16 x 125      | 16x100        | 17x120        | 29x115               | 25x90         | 25x110        | 16 x 80       | 62 x 122            | 62 x 137         | 97 x 139            | 97 x 152            | 96 x 176            |
| max. RCF <sup>2)</sup> Rotor 4176 / 4174 | 5,841 / 5,026                  | 5,841 / 5,026 | 5,977 / 5,184 | 5,977 / 5,184 | 5,977 / 5,184 | 6,090 / 5,298 | 6,090 / 4,958        | 5,909 / 5,117 | 5,909 / 5,117 | 5,977 / 5,184 | 6,203 / 5,411       | 6,203 / 5,411    | 6,384 / 5,592       | 6,384 / 5,592       | 6,384 / 5,592       |
| radius in mm                             | 258 / 222                      | 258 / 222     | 264 / 229     | 264 / 229     | 264 / 229     | 269 / 234     | 269 / 219            | 261 / 226     | 261 / 226     | 264 / 229     | 274 / 239           | 274 / 239        | 282 / 247           | 282 / 247           | 282 / 247           |



### Adapter

|                    |           |           |           |           |           |         |         |         |         |           |       |       |          |          |          |
|--------------------|-----------|-----------|-----------|-----------|-----------|---------|---------|---------|---------|-----------|-------|-------|----------|----------|----------|
| boring Ø x L in mm | 13.5 x 58 | 13.5 x 58 | 17.5 x 60 | 17.5 x 60 | 17.5 x 60 | 17 x 86 | 30 x 87 | 26 x 72 | 26 x 72 | 17.5 x 60 | 62x92 | 62x92 | 98 x 141 | 98 x 141 | 98 x 141 |
| vessels per rotor  | 126 / 84  | 126 / 84  | 114 / 76  | 114 / 76  | 114 / 76  | 72 / 48 | 30 / 20 | 42 / 28 | 42 / 28 | 114 / 76  | 6 / 4 | 6 / 4 | 6 / 4    | 6 / 4    | 6 / 4    |
| Cat. No.           | 4435      | 4435      | 4434      | 4434      | 4434      | 4437    | 4441    | 4438    | 4438    | 4434      | 4443  | 4443  | -        | -        | -        |

### Vessels

|                                          | Falcon®       | Nalgene®      | Nunc®         | Falcon®       | Corning®      | Corning®      |
|------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| capacity in ml                           | 175           | 175           | 200           | 225           | 250           | 500           |
| Ø x L in mm                              | 61 x 118      | 61.5x144.3    | 60x130        | 61 x 137      | 60 x 162      | 96 x 147      |
| max. RCF <sup>2)</sup> Rotor 4176 / 4174 | 6,384 / 5,592 | 6,384 / 5,592 | 6,384 / 5,592 | 6,384 / 5,592 | 6,384 / 5,592 | 6,384 / 5,592 |
| radius in mm                             | 282 / 247     | 282 / 247     | 282 / 247     | 282 / 247     | 282 / 247     | 282 / 247     |



### Adapter

|                    | Falcon®     | Nalgene®    | Nunc®       | Falcon®     | Corning®    | Corning®    |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| boring Ø x L in mm | -           | -           | -           | -           | -           | -           |
| vessels per rotor  | 6 / 4       | 6 / 4       | 6 / 4       | 6 / 4       | 6 / 4       | 6 / 4       |
| <b>Cat. No.</b>    | <b>4440</b> | <b>4430</b> | <b>4430</b> | <b>4440</b> | <b>4430</b> | <b>4449</b> |

- 1) For cooled versions: Lowest temperature achievable with precooling and max. 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.
- 3.17) When using these tubes, bucket 4547-B cannot be closed with lid 5621.
- 24) At temperatures of over +40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

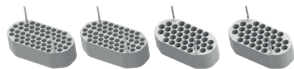


## Swing-out rotor, 6- / 4-place | 4176 / 4174

|                                                                                   |                                 |   |                                                                                    |  |
|-----------------------------------------------------------------------------------|---------------------------------|---|------------------------------------------------------------------------------------|--|
|  |                                 | + |  |  |
| <b>Rotor</b>                                                                      |                                 |   | <b>Bucket</b>                                                                      |  |
| max. RPM                                                                          | 4,500 min <sup>-1</sup>         |   | <b>Cat. No.</b>                                                                    |  |
| max. RCF                                                                          | Rotor 4176 / 4174 5,999 / 5,184 |   | 4572                                                                               |  |
| max. capacity                                                                     | 6 x 750 ml                      |   |                                                                                    |  |
| run-up   run-down, braked in sec                                                  | 125   197                       |   |                                                                                    |  |
| angle   temperature in °C <sup>1)</sup>                                           | 90°   +14 / -1                  |   |                                                                                    |  |
| <b>Cat. No.</b>                                                                   | <b>4176 / 4174</b>              |   |                                                                                    |  |



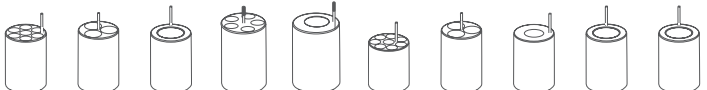
|                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <b>blood collection tubes</b> |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|                               |  |  |  |  |
| <b>Vessels</b>                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| capacity in ml                | 4 – 7                                                                             | 4 – 7                                                                             | 4 – 7                                                                             | 8.5 – 10                                                                          |
| Ø x L in mm                   | 13 x 75                                                                           | 13 x 100                                                                          | 16 x 75                                                                           | 16 x 100                                                                          |
| max. RCF                      | Rotor 4176 / 4174 5,818 / 5,003                                                   | 5,818 / 5,003                                                                     | 5,522 / 4,718                                                                     | 5,522 / 4,718                                                                     |
| radius in mm                  | 257 / 221                                                                         | 257 / 221                                                                         | 244 / 208                                                                         | 244 / 208                                                                         |

|                                                                                   |           |           |           |           |
|-----------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|
| +                                                                                 |           |           |           |           |
|  |           |           |           |           |
| <b>Adapter</b>                                                                    |           |           |           |           |
| boring Ø x L in mm                                                                | 13.2 x 59 | 13.2 x 59 | 17.5 x 59 | 17.5 x 59 |
| vessels per rotor                                                                 | 336 / 224 | 336 / 224 | 210 / 140 | 210 / 140 |
| <b>Cat. No.</b>                                                                   | 4493      | 4493      | 4494      | 4494      |

## Angle rotor, 6-place | 4570

|                                                                                     |                                 |   |                                                                                      |                  |
|-------------------------------------------------------------------------------------|---------------------------------|---|--------------------------------------------------------------------------------------|------------------|
|  |                                 | + |  |                  |
| <b>Rotor</b>                                                                        |                                 |   | <b>Lid bioseal<sup>®</sup> and phenol-resistant</b>                                  |                  |
| max. RPM   max. RCF                                                                 | 6,000 min <sup>-1</sup>   5,594 |   | <b>Cat. No.</b>                                                                      | <b>INCLUSIVE</b> |
| max. capacity                                                                       | 6 x 250 ml                      |   |                                                                                      |                  |
| run-up   run-down, braked in sec                                                    | 64   69                         |   |                                                                                      |                  |
| angle   max. noise level                                                            | 25°   54 dB(A)                  |   |                                                                                      |                  |
| temperature in °C <sup>(1)</sup>                                                    | -16                             |   |                                                                                      |                  |
| <b>Cat. No.</b>                                                                     | <b>4570</b>                     |   |                                                                                      |                  |



|                                                                                      |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>tubes<sup>2)</sup></b>                                                            |                                                                                     |                                                                                     | <b>tubes with screw cap</b>                                                         |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      | <b>5127<sup>24)</sup></b>                                                             |
|                                                                                      |  |  |  |  |  |  |  |  |  |  |  |
| <b>Vessels</b>                                                                       |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
| capacity in ml                                                                       | 15                                                                                  | 25                                                                                  | 94                                                                                  | 15                                                                                  | 50                                                                                  | 10                                                                                  | 30                                                                                  | 50                                                                                  | 85                                                                                  | 94                                                                                   | 250                                                                                   |
| Ø x L in mm                                                                          | 17 x 100                                                                            | 24 x 100                                                                            | 38 x 102                                                                            | 17 x 120                                                                            | 29 x 115                                                                            | 16 x 80                                                                             | 26 x 95                                                                             | 29 x 107                                                                            | 38 x 106                                                                            | 38 x 102                                                                             | 61.5 x 122                                                                            |
| max. RCF <sup>2)</sup>                                                               | 5,315                                                                               | 5,152                                                                               | 4,910                                                                               | 5,152                                                                               | 4,830                                                                               | 5,353                                                                               | 5,152                                                                               | 4,830                                                                               | 4,910                                                                               | 4,910                                                                                | 5,594                                                                                 |
| radius in mm                                                                         | 132                                                                                 | 128                                                                                 | 122                                                                                 | 128                                                                                 | 120                                                                                 | 133                                                                                 | 128                                                                                 | 120                                                                                 | 122                                                                                 | 122                                                                                  | 139                                                                                   |
| +                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
| <b>Adapter</b>                                                                       |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                      |                                                                                       |
| boring Ø x L in mm                                                                   | 17.6 x 83                                                                           | 26 x 80                                                                             | 38.6 x 88                                                                           | 17 x 106                                                                            | 30 x 100                                                                            | 16.6 x 70                                                                           | 26 x 80                                                                             | 29 x 90                                                                             | 38.6 x 88                                                                           | 38.6 x 88                                                                            | 61.5 x 109                                                                            |
| vessels per rotor                                                                    | 42                                                                                  | 18                                                                                  | 6                                                                                   | 30                                                                                  | 6                                                                                   | 48                                                                                  | 18                                                                                  | 6                                                                                   | 6                                                                                   | 6                                                                                    | 6                                                                                     |
| <b>Cat. No.</b>                                                                      | 5646                                                                                | 5642                                                                                | 5644                                                                                | 5637                                                                                | 5638                                                                                | 5641                                                                                | 5642                                                                                | 5643                                                                                | 5644                                                                                | 5644                                                                                 | -                                                                                     |

1) For cooled versions: Lowest temperature achievable with precooling and max. 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.

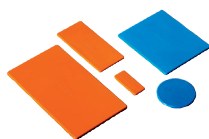
24) At temperatures of over +40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

## Accessories for centrifuging blood bag systems



### Hettliner

Blood bags can be secured in adapters using HettLiners. After centrifuging, they can be removed by their loops without disturbing the delicate separation of blood components.



### Set of compensatory weights

If blood bag carriers are not filled to the same weight, then compensatory weights can be used to make up the difference. One set includes:  
40 balancing weights, 2 g each;  
20 balancing weights, 5 g each;  
10 balancing weights, 10 g each;  
5 balancing weights, 20 g each;  
5 balancing weights, 40 g each



### Balancing inserts

In case there are not enough blood bag systems to occupy every carrier of the rotor, empty carriers can be filled with balancing inserts. Taring weights supplied with the inserts may be used for fine balancing.



### Loading station

Secure your samples and avoid accidental spillage with the convenient Loading Station for centrifuge inserts. The Hettich Loading Station allows users to confidently hold and manage their samples without the risk of the inserts toppling over.

Cat. No. 4564

Cat. No. 4566

4584-A for insert 4559-A

4587-A for insert 4592-B

4589-A for insert 4516-A

Cat. No. 4509

## Certifications / Registrations

Product certification:



Product registration:



Company certifications:



## — Dimensions

