



**ROTINA 420/420 R**  
**Benchtop Centrifuges**  
**classic/cooled**

# ROTINA 420/420 R

Developed for large volumes, yet not overly large in size. High performance when it counts, yet cost-effective and fair to your budget. The ROTINA 420 centrifuges offer these benefits and more.

The new, compact benchtop centrifuges are conceived for high sample throughput as well as for high sample volumes.

With a maximum capacity of 4 x 600 ml, 140 blood collection tubes or 16 microtitre plates they are ideal for applications in clinical chemistry, in biotechnology and in life science research facilities.



ROTINA 420 classic

**Cat. No. 4701**

## PERFORMANCE

- High capacity
  - max. 4 x 600 ml
- High RCF
  - up to 16,504 for 94 ml tubes
  - up to 12,007 for 250 ml bottles
  - up to 24,400 for reaction tubes



## DESIGN

- Metal housing
- Stainless steel centrifuging chamber
- Viewing port in the lid

## USER-FRIENDLINESS

- Automatic lid locking
- Ergonomic control and information panel
- Easy rotor changing
- 99 program storage spaces

## COOLING (ROTINA 420 R)

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

## SAFETY

- Lid locking and holding
- Emergency lid lock release
- Lid dropping protection
- Automatic rotor recognition
- Imbalance switch-off
- Motor overheating protection
- Chamber overheating protection (ROTINA 420 R)

## OPTIONS

The following are available as options, the ROTINA 420 R

- with connection for nitrogen flushing  
Cat. No. **4706-20**  
for centrifugation of reactive substances or substances which are unstable in aerial oxygen. As required, a monitoring control system should be available to measure oxygen concentration.
- as heating/cooling version up to +90 °C (or +194 °F)  
Cat. No. **4706-50**  
for applications calling for temperatures over +40 °C.

## OPERATION AND CONTROL

The advanced C control panel significantly facilitates the daily laboratory routine.

Parameter selection is done via the use of symbol keys. Values are set with the control knob, and recorded by pressing the Start key.


9 braking and acceleration ramps, unbraked run-down, or a cut-off speed can be selected. Ramp 9 represents the shortest braking and acceleration time.

98 program memory positions are available. Additional program position "PREC" (PRECOOLING) is reserved for the pre-cooling program.


The temperature in the ROTINA 420 R refrigerated centrifuge can be set in either Celsius (°C) or Fahrenheit (°F) degrees.

## DIGITAL DISPLAY AND CONTROL PANEL

### KEYBOARD

START	Start centrifugation run / short centrifuging runs / save entries and changes
	Start pre-cooling program <b>PREC</b>
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 (ROTINA 420 R)
	Input of acceleration levels 1 – 9 Input of braking levels 1 – 9 Input brake force cut-off
RCF	Input relative centrifugal force (RCF) in increments of 1 Enter centrifuging radius (RAD) in mm
RPM	Input speed in increments of 10
TIME	Input length of centrifugation (max. 99 h : 59 min : 59 sec) or continuous operation



ROTINA 420 R cooled

Cat. No. 4706



ROTINA 420 R keypad (C control panel)

# ROTORS AND ACCESSORIES

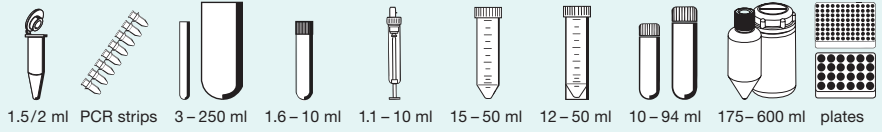
Some accessories with bio-containment<sup>4)</sup>



## Swing-out rotor 4-place

↘ 90°  
n = 4,500 min<sup>-1</sup>  
max. RCF 4,166

**Cat. No. 4723**



→  
**P.5-6**

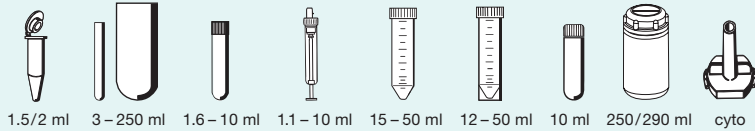
Some accessories with bio-containment<sup>4)</sup>



## Swing-out rotor 4-place

↘ 90°  
n = 4,000 min<sup>-1</sup>  
max. RCF 3,095

**Cat. No. 4753**



→  
**P.7-9**

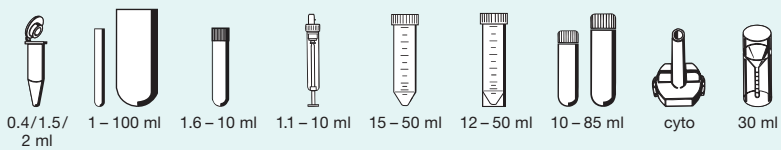
Some accessories with bio-containment<sup>4)</sup>



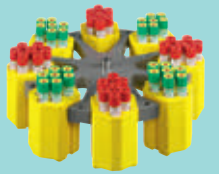
## Swing-out rotor 4-place

↘ 90°  
n = 4,600 min<sup>-1</sup>  
max. RCF 3,832

**Cat. No. 4754**



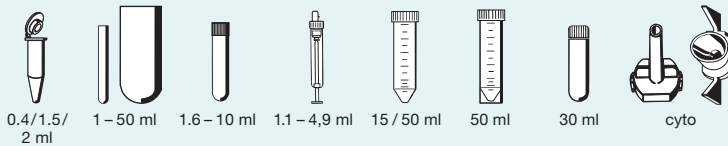
→  
**P.9-12**



## Swing-out rotor 8-place

↘ 90°  
n = 3,800 min<sup>-1</sup>  
max. RCF 2,906

**Cat. No. 4758**



→  
**P.13**

auto-clavable with bio-containment<sup>4)</sup>



## Angle rotor 30-place

↘ 45°  
n = 15,000 min<sup>-1</sup>  
max. RCF 24,400

**Cat. No. 4790-A**



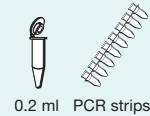
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**P.14**



## Angle rotor 6-place

↘ 45°  
n = 14,000 min<sup>-1</sup>  
max. RCF 18,845

**Cat. No. 4760**



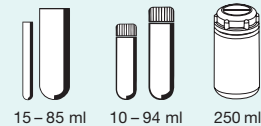
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**P.14**



## Angle rotor 4-place

↘ 25°  
n = 9,500 min<sup>-1</sup>  
max. RCF 12,007

**Cat. No. 4795**



→  
**P.14**

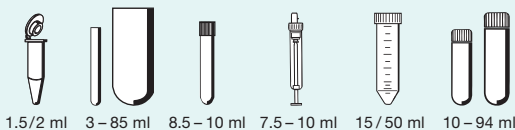
auto-clavable with bio-containment<sup>4)</sup>



## Angle rotor 6-place

↘ 45°  
n = 11,000 min<sup>-1</sup>  
max. RCF 16,504

**Cat. No. 4794**



→  
**P.15**

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

# ROTORS AND ACCESSORIES

## Swing-out rotor, 4-place



↻ 90°

n = 4,500 min<sup>-1</sup>  
max. RCF 4,166

illustrated with carriers 4750 and lids 4751  
with bio-containment<sup>4)</sup>

**Cat. No.** (without carriers) **4723**

capacity in ml	1.5	2.0	3	4	4	5	6	7	10	15	25	50	75	85	100	100	
Ø x L in mm	11x38		10x60	10x88	12x60	12x75	12x82	12x100	17x70	17x100	24x100	34x100	35x105	38x106	40x115	44x100	
<b>Cat. No.</b>	<b>2078</b>	<b>0536</b>	-			<b>0553<sup>2)</sup></b>	<b>0501<sup>2)</sup></b>	<b>0578<sup>2)</sup></b>	<b>2079</b>	<b>0518<sup>2)</sup></b>	<b>0519<sup>2)</sup></b>	<b>0521<sup>2)</sup></b>	<b>0548</b>	<b>0549</b>	<b>0523<sup>2)</sup></b>	<b>0526<sup>2)</sup></b>	
lid with bio-containment <sup>4)</sup> Cat. No. 4751																	
carrier Cat. No. 4750																	
<b>Cat. No.</b>	<b>4773</b>	<b>4761</b>				<b>4762</b>				<b>4763</b>	<b>4764</b>	<b>4765</b>	<b>4766</b>	<b>4766</b>	<b>4767</b>		
boring Ø x L in mm	11.2x38		11.2x54			13.4x55			17.5x62		26.5x69		36x77		42x76.5		46x76.5
tubes per rotor	96		140			104			72		28		16		12		8
max. RCF <sup>2)</sup>	4,030											4,007					
radius in mm	178											177					
run-up in sec	40																
run-down in sec	40 550																
temperature in °C <sup>1)</sup>	+2																

capacity in ml	250	1.1-1.4	2.6-2.9	2.7-3	4-5.5	4.5-5	4.9	7.5-8.2	9-10	1.6-5	4-7	4-7	8	8.5-10	15	50	
Ø x L in mm	65x115	8x66	13x65	11x66	15x75	11x92	13x90	15x92	16x92	13x75	13x100	16x75	16x125	16x100	17x120	29x115	
<b>Cat. No.</b>	<b>0530<sup>2)</sup></b>	<b>blood collection / urine tubes</b>													<b>0509</b>	<b>0513</b>	
lid with bio-containment <sup>4)</sup> Cat. No. 4751																	
carrier Cat. No. 4750																	
<b>Cat. No.</b>	<b>4768</b>	<b>4761</b>	<b>4775</b>	<b>4763</b>	<b>4761</b>	<b>4762</b>	<b>4763</b>	<b>4775</b>	<b>4762</b>	<b>4763</b>			<b>4769</b>	<b>4770</b>			
boring Ø x L in mm	66x103	11.2x54	13.7x54	17.5x62	11.2x54	13.4x55	17.5x62	13.7x54	13.4x55	17.5x62			17x84	30x82.5			
tubes per rotor	4	140	84	72	140	104	72	84	104	72	24	72	52	20			
max. RCF <sup>2)</sup>	3,985	4,030													4,166	4,143	
radius in mm	176	178													184	183	
run-up in sec	40																
run-down in sec	40 550																
temperature in °C <sup>1)</sup>	+2																

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 4750 cannot be closed with lid 4751.

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

# ROTORS AND ACCESSORIES



illustrated with carriers 4750 and lids 4751  
with bio-containment<sup>4)</sup>

## Swing-out rotor Cat. No. (without carriers) **4723**

capacity in ml	12	25	30	50	10	30	50	85	94	175	175	200	225	250	400	400	600	
Ø x L in mm	17 x 100	25 x 90	25 x 110	29 x 115	16 x 80	26 x 95	29 x 107	38 x 106	38 x 102	61 x 118	62 x 144	60 x 130	61 x 137	61 x 122	81 x 136	84 x 134	93 x 134	
<b>Cat. No.</b>	-						<b>0545</b>	<b>0546</b>	<b>0547</b>	<b>0538<sup>6)</sup></b>	<b>Falcon®</b>	<b>Nalgene®</b>	<b>Nunc®</b>	<b>Falcon®</b>	<b>5127<sup>7)</sup></b>	<b>-<sup>7)</sup></b>	<b>-<sup>7)</sup></b>	<b>0551<sup>7)</sup></b>
lid with bio-containment <sup>4)</sup> Cat. No. <b>4751</b>																		
<b>carrier</b> Cat. No. <b>4750</b>																		
<b>Cat. No.</b>	<b>4774</b>	<b>4764</b>	<b>4770<sup>5)</sup></b>	<b>4763</b>	<b>4764</b>	<b>4770<sup>5)</sup></b>	<b>4766</b>	<b>4776</b>	<b>4777</b>				<b>4776</b>	<b>4771</b>	<b>4772</b>	-		
boring Ø x L in mm	172 x 82.5	26.5 x 69	30 x 82.5	17.5 x 62	26.5 x 69	30 x 82.5	42 x 76.5	61 x 105	61.5 x 110				61 x 105	62 x 100	85 x 100	94 x 99		
tubes per rotor	60	28	20	72	28	20	12	4										
max. RCF <sup>2)</sup>	4,143	4,030	4,143	4,030		4,143	4,007	4,166										
radius in mm	183	178	183	178		183	177	184										
run-up in sec	40																	
run-down in sec																		
temperature in °C <sup>1)</sup>	+2																	

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	59 x 84 x 11	82 x 124 x 20	-	
capacity in ml	-								0.2
<b>Cat. No.</b>	<b>MTP</b>		<b>CP</b>	<b>DWP</b>	<b>MS</b>	<b>Microtest plate (Terasaki)</b>	<b>PCR plate, 96-place</b>	<b>PCR strips</b>	
<b>carrier</b> Cat. No. <b>4752</b>									
<b>Cat. No.</b>	-							<b>1485</b>	
boring Ø x L in mm	-								
plates/strips per rotor	16	16	12	4	4	8	4	48 x 8	
max. RCF <sup>2)</sup>	3,600								
radius in mm	159								
run-up in sec	40								
run-down in sec									
temperature in °C <sup>1)</sup>	+2								

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

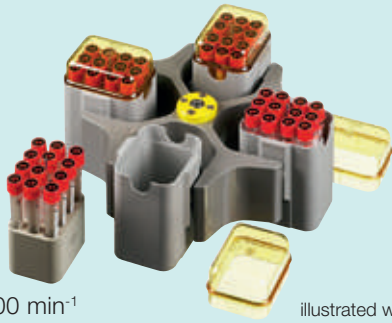
<sup>2)</sup> Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for glass tubes annotated with footnote <sup>2)</sup> is 4,000.

<sup>3)</sup> When using these tubes, carrier 4750 resp. 5051 cannot be closed with lid 4751 resp. 5053.

<sup>4)</sup> Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

# ROTORS AND ACCESSORIES

## Swing-out rotor, 4-place



↻ 90°

n = 4,000 min<sup>-1</sup>  
max. RCF 3,095

illustrated with carriers 5051  
and lids 5053

**Cat. No.** (without carriers) **4753**

capacity in ml	1.5	2.0	1.5	2.0	3	5	6	7	9	15	25	50	100	100
Ø x L in mm	11x38		11x38		10x60	12x75	12x82	12x100	14x100	17x100	24x100	34x100	44x100	40x115
<b>Cat. No.</b>	-	-	<b>2078</b>	<b>0536</b>	-	<b>0553<sup>2)</sup></b>	<b>0501<sup>2)</sup></b>	<b>0578<sup>2)</sup></b>	<b>0500<sup>2)</sup></b>	<b>0518<sup>2)</sup></b>	<b>0519<sup>2)</sup></b>	<b>0521<sup>2)</sup></b>	<b>0526<sup>2)</sup></b>	<b>0523<sup>2)</sup></b>
lid Cat. No. 5053														
carrier Cat. No. 5051														
<b>Cat. No.</b>	<b>5257</b>	<b>5281</b>	<b>5267</b>	<b>5227</b>	<b>5247<sup>5)</sup></b>	<b>5264</b>	<b>5248<sup>8)</sup></b>	<b>5242</b>	<b>5243</b>	<b>5262</b>	<b>5249</b>			
boring Ø x L in mm	12.5x42	11.5x50	11x44	12.5x42	12.5x86	16x50	17.5x86	26x86	36x86	45.5x86	42x86			
tubes per rotor	160	64	80	80	80	48	48	20	8	4				
max. RCF <sup>2)</sup> upper/lower	1,950/2,826	2,826	2,737	2,773	2,755	2,773	2,755		2,755					
radius in mm upper/lower	109/158	158	153	155	154	155	154		154					
run-up in sec	18													
run-down in sec	☐ 16    ☐ 260													
temperature in °C <sup>1)</sup>	- 1													

capacity in ml	1.1-1.4	2.6-2.9	2.7-3	4-5.5	4.5-5	4.9	7.5-8.2	9-10	10	1.6-5	4-7	4-7	8.5-10
Ø x L in mm	8x66	13x65	11x66	15x75	11x92	13x90	15x92	16x92	15x102	13x75	16x75	13x100	16x100
<b>Cat. No.</b>	<b>blood collection/urine tubes</b>												
lid Cat. No. 5053													
carrier Cat. No. 5051													
<b>Cat. No.</b>	<b>5267</b>	<b>5268</b>	<b>5227</b>	<b>5264</b>	<b>5227</b>	<b>5268</b>	<b>5264</b>	<b>5258</b>	<b>5268</b>	<b>5264</b>	<b>5268</b>	<b>5248</b>	
boring Ø x L in mm	11x44	13.5x52	12.5x42	16x50	12.5x42	13.5x52	16x50	17.6x86	13.5x52	16x50	13.5x52	17.5x86	
tubes per rotor	80	48	80	48	80	48	48	44	48				
max. RCF <sup>2)</sup>	2,737	2,808	2,773	2,773	2,808	2,773	2,755	2,808	2,773	2,808	2,755		
radius in mm	153	157	155	155	157	155	154	157	155	157	154		
run-up in sec	18												
run-down in sec	☐ 16    ☐ 260												
temperature in °C <sup>1)</sup>	- 1												

<sup>5)</sup> Please remove the inserts.

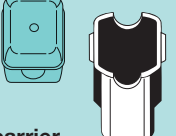














<sup>6)</sup> The screw cap for tube No. 0538 is available with Cat. No. 0539. Dimensions with cap 38 x 106 mm.





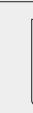
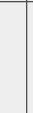







<sup>7)</sup> At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

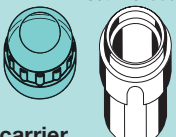








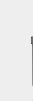

























<sup>8)</sup> With Cat. No. 5247-91 or 5248-91 these adapters can also be ordered with a decanting aid.

# ROTORS AND ACCESSORIES

## Swing-out rotor 4753

capacity in ml	15	50	12	30	50	two-tier frame for cyto accessories
Ø x L in mm	17x120	29x115	17x100	25x110	29x115	
<b>Cat. No.</b>	<b>0509</b>	<b>0513</b>	-			<b>cyto chambers<sup>9)</sup></b>
 <b>carrier</b> Cat. No. <b>5051</b>	 <sup>3)</sup>	 <sup>3)</sup>		 <sup>3)</sup>	 <sup>3)</sup>	
						
<b>Cat. No.</b>	<b>6306</b>	<b>5259</b>	<b>6306</b>	<b>5266</b>	<b>5243</b>	<b>5280</b>
boring Ø x L in mm	17x90	30x86	17x90	26x86	36x86	-
tubes per rotor	28	8	28	20	8	8
max. RCF <sup>2)</sup> upper/lower	2,898	2,826	2,898	2,755		1,735/2,737
radius in mm upper/lower	162	158	162	154		97/153
run-up in sec	18					
run-down in sec	 16  260					
temperature in °C <sup>1)</sup>	-1					

capacity in ml	5	6	7	10	15
Ø x L in mm	12x75	12x82	12x100	17x70	17x100
<b>Cat. No.</b>	<b>0553<sup>2)</sup></b>	<b>0501<sup>2)</sup></b>	<b>0578<sup>2)</sup></b>	<b>2079</b>	<b>0518<sup>2)</sup></b>
 <b>carrier</b> Cat. No. <b>5092</b>					
					
<b>Cat. No.</b>	<b>5128</b>	<b>5120</b>	<b>5136</b>		
boring Ø x L in mm	12.8x45		12.8x82	17.5x60.7	
tubes per rotor	48			32	
max. RCF <sup>2)</sup>	3,005			2,952	
radius in mm	168			165	
run-up in sec	18				
run-down in sec	 16  260				
temperature in °C <sup>1)</sup>	-1				

capacity in ml	25	50	100	100	250	1.1-1.4	2.6-2.9	2.7-3	4-5.5	4.5-5	4.9	7.5-8.2	9-10	10	1.6-5	4-7
Ø x L in mm	24x100	34x100	44x100	40x115	65x115	8x66	13x65	11x66	15x75	11x92	13x90	15x92	16x92	15x102	13x75	13x100
<b>Cat. No.</b>	<b>0519<sup>2)</sup></b>	<b>0521<sup>2)</sup></b>	<b>0526<sup>2)</sup></b>	<b>0523<sup>2)</sup></b>	<b>0530<sup>2)</sup></b>	<b>blood collection/urine tubes</b>										
 <b>carrier</b> Cat. No. <b>5092</b>																
																
<b>Cat. No.</b>	<b>5122</b>	<b>5124</b>	<b>5125</b>	<b>5126</b>	<b>1791</b>	<b>5138</b>		<b>5136</b>	<b>5120</b>	<b>5137</b>	<b>5136</b>		<b>5138</b>	<b>5120</b>		
boring Ø x L in mm	25.5x82	35.5x85	45.5x85	42x85	66x103	12.8x54.5		17.5x60.7	12.8x82	13.5x60.7	17.5x60.7		12.8x54.5	12.8x82		
tubes per rotor	16	4				48		32	48	32		48	48			
max. RCF <sup>2)</sup>	2,898	2,952	2,952		3,095	2,540		2,952	3,005	2,952		2,540	3,005			
radius in mm	162	165	165		173	142		165	168	165		142	168			
run-up in sec	18															
run-down in sec	 16  260															
temperature in °C <sup>1)</sup>	-1															

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

<sup>2)</sup> 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 <sup>2)</sup> is 4,000.

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



# ROTORS AND ACCESSORIES

## Swing-out rotor, 4-place



### Swing-out rotor 4753

Cat. No. (without carriers) **4754**

capacity in ml	4-7	8.5-10	8	15	50	12	25	30	50	10	250	290
Ø x L in mm	16 x 75	16 x 100	16 x 125	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
<b>Cat. No.</b>	blood/urine tubes			<b>0509</b>	<b>0513</b>	-					<b>5127<sup>7)</sup></b>	<b>-<sup>7)</sup></b>
lid with bio-containment <sup>4)</sup> Cat. No. <b>5093</b>												
Rotor 4753 <b>carrier</b> Cat. No. <b>5092</b>												
<b>Cat. No.</b>	<b>5136</b>	<b>5121<sup>5)</sup></b>	<b>5129<sup>5)</sup></b>	<b>5123</b>	<b>5121</b>	<b>5134</b>	<b>5122</b>	<b>5135</b>	<b>5136</b>	<b>6319</b>		
boring Ø x L in mm	17.5 x 60.7	17.5 x 82	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	32	28	28	8	28	12	16	8	32	4		
max. RCF <sup>2)</sup>	2,952	3,059	3,095		3,005	2,826	2,898	3,023	2,952	3,095		
radius in mm	165	171	173		168	158	162	169	165	173		
run-up in sec	18											
run-down in sec	16 260											
temperature in °C <sup>1)</sup>	-1											

capacity in ml	1.5	2.0	1	3	4	5	6	7	8	9	15	25	50	85	100	
Ø x L in mm	11 x 38	11 x 38	6 x 45	10 x 60	10 x 88	12 x 75	12 x 82	12 x 100	16 x 81	14 x 100	17 x 100	24 x 100	34 x 100	38 x 106	44 x 100	
<b>Cat. No.</b>	<b>2078</b>	<b>0536</b>	<b>Rhesus</b>	-		<b>0553<sup>2)</sup></b>	<b>0501<sup>2)</sup></b>	<b>0578<sup>2)</sup></b>	-	<b>0500<sup>2)</sup></b>	<b>0518<sup>2)</sup></b>	<b>0519<sup>2)</sup></b>	<b>0521<sup>2)</sup></b>	<b>0549</b>	<b>0526<sup>2)</sup></b>	
lid with bio-containment <sup>4)</sup> Cat. No. <b>1382</b>																
Rotor 4754 <b>carrier</b> Cat. No. <b>1430</b>																
<b>Cat. No.</b>	<b>1351</b>	<b>1339</b>	<b>1343</b>	<b>1383</b>			<b>1348</b>	<b>1329</b>	<b>1330</b>	<b>1331</b>	<b>1396</b>	<b>0761</b>	rubber insert			
boring Ø x L in mm	11.2 x 38	6.5 x 34	10.5 x 43	13.4 x 48			16.5 x 56	17.6 x 91	25.2 x 87	35.2 x 87	38.5 x 92	45.6 x 98				
tubes per rotor	20	108	36	20			16	16	4							
max. RCF <sup>2)</sup>	3,549	3,738	3,785	3,690			3,667	3,525	3,501	3,761	3,690					
radius in mm	150	158	160	156			156	155	149	148	159	156				
run-up in sec	14															
run-down in sec	14 200															
temperature in °C <sup>1)</sup>	0															

<sup>4)</sup> Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

<sup>5)</sup> Please remove the inserts.

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

<sup>9)</sup> Please ask for our detailed cyto brochure.

# ROTORS AND ACCESSORIES



illustrated with carriers 1430 and lids 1382  
with bio-containment<sup>4)</sup>

## Swing-out rotor Cat. No. (without carriers) 4754

capacity in ml	1.1–1.4	2.6–2.9	2.7–3	4–5.5	4.5–5	4.9	7.5–8.2	9–10	10	1.6–5	4–7	4–7	8.5–10
Ø x L in mm	8x66	13x65	11x66	15x75	11x92	13x90	15x92	16x92	15x102	13x75	13x100	16x75	16x100
<b>Cat. No.</b>	<b>blood collection/urine tubes</b>												
lid with bio-containment <sup>4)</sup> Cat. No. 1382													
carrier Cat. No. 1430													
<b>Cat. No.</b>	<b>1457</b>	<b>1383</b>	<b>1459</b>	<b>1383</b>	<b>1459</b>	<b>1329</b>	<b>1329<sup>5)</sup></b>	<b>1383</b>	<b>1348</b>	<b>1383</b>	<b>1348</b>	<b>1383</b>	<b>1348</b>
boring Ø x L in mm	9x47	13.4x48	15.6x47	13.4x48	15.6x47	17.6x91		13.4x48		16.5x56			
tubes per rotor	28	20	16	20	16	16		20		16			
max. RCF <sup>2)</sup>	3,714	3,690	3,714	3,690	3,714	3,667	3,832	3,690					
radius in mm	157	156	157	156	157	155	162	156					
run-up in sec	14												
run-down in sec	☐ 14    ○ 200												
temperature in °C <sup>1)</sup>	0												

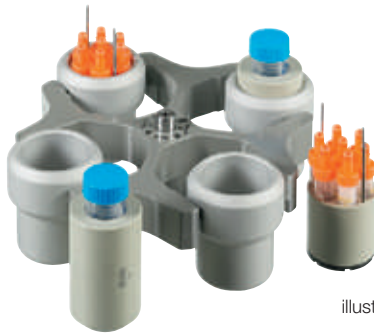
capacity in ml	15	15	30	50	12	25	30	50	10	30	50	85	30	
Ø x L in mm	17x120	17x120	25x110	29x115	17x100	25x90	25x110	29x115	16x80	26x95	29x107	38x106	44x105	
<b>Cat. No.</b>	<b>0509</b>	<b>0509</b>	-	<b>0513</b>	-						<b>0545</b>	<b>0546</b>	<b>0547</b>	<b>0534<sup>10)</sup></b>
lid with bio-containment <sup>4)</sup> Cat. No. 1382														
carrier Cat. No. 1430														
<b>Cat. No.</b>	<b>1347</b>	<b>1356</b>	<b>1365</b>	<b>1384</b>	<b>6311</b>	<b>1363</b>	<b>1365</b>	<b>6318</b>	<b>1348</b>	<b>4417</b>	<b>4416</b>	<b>1396</b>	<b>0765</b>	
boring Ø x L in mm	17x90	17x107	26x80	30x90	17x80	26x72	26x80	29.5x80	16.5x56	26x83	29x93	38.5x92	45.6x98	
tubes per rotor	4	12	4		4	4		16	4					
max. RCF <sup>2)</sup>	3,832			3,407			3,832		3,690	3,549	3,785	3,761	3,667	
radius in mm	162			144			162		156	150	160	159	155	
run-up in sec	14													
run-down in sec	☐ 14    ○ 200													
temperature in °C <sup>1)</sup>	0													

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

<sup>2)</sup> 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 <sup>2)</sup> is 4,000.




























<sup>3)</sup> When using these tubes, carrier 1430 cannot be closed with lid 1382.





























# ROTORS AND ACCESSORIES



illustrated with carriers 1425

## Swing-out rotor Cat. No. (without carriers) 4754

capacity in ml	1.5	2.0	1	3	4	5	6	7	9	15	25	50	100
Ø x L in mm	11x38	11x38	6x45	10x60	12x60	12x75	12x82	12x100	14x100	17x100	24x100	34x100	44x100
<b>Cat. No.</b>	<b>2078</b>	<b>0536</b>	<b>Rhesus</b>	<b>-</b>		<b>0553<sup>2)</sup></b>	<b>0501<sup>2)</sup></b>	<b>0578<sup>2)</sup></b>	<b>0500<sup>2)</sup></b>	<b>0518<sup>2)</sup></b>	<b>0519<sup>2)</sup></b>	<b>0521<sup>2)</sup></b>	<b>0526<sup>2)</sup></b>
 <b>carrier</b> Cat. No. 1425													
													
<b>Cat. No.</b>	<b>1444</b>	<b>1432</b>	<b>1433</b>	<b>1438</b>		<b>1434</b>		<b>1431</b>		<b>1435</b>	<b>1436</b>	<b>1437</b>	
boring Ø x L in mm	11.5x38	6.5x34	10.5x40	13.4x50		12.7x60		17.5x84		25.5x84	35.5x84	45.5x86	
tubes per rotor	36	144	56	28		48		28		8	4	4	
max. RCF <sup>2)</sup>	3,572	3,643			3,596							3,501	
radius in mm	151	154			152							148	
run-up in sec	14												
run-down in sec	☐ 14    ☐ 200												
temperature in °C <sup>1)</sup>	0												

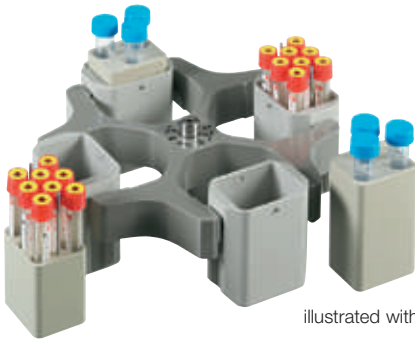
capacity in ml	2.6–2.9	2.7–3	4–5.5	4.5–5	4.9	7.5–8.2	9–10	1.6–5	4–7	4–7	8.5–10	15	50	50
Ø x L in mm	13x65	11x66	15x75	11x92	13x90	15x92	16x92	13x75	13x100	16x75	16x100	17x120	29x115	29x115
<b>Cat. No.</b>	<b>blood collection/urine tubes</b>											<b>0509</b>	<b>0513</b>	<b>-</b>
 <b>carrier</b> Cat. No. 1425														
														
<b>Cat. No.</b>	<b>1438</b>	<b>1441</b>	<b>1438</b>	<b>1431</b>	<b>1439</b>	<b>1438</b>	<b>1441</b>	<b>1736</b>	<b>1443</b>	<b>1737</b>				
boring Ø x L in mm	13.4x50	16.5x50	13.4x50	17.5x84	17x45	13.4x50	16.5x50	17x90	30x90					
tubes per rotor	28		16		28		16	4						
max. RCF <sup>2)</sup>	3,596		3,596		3,596		3,738		3,738					
radius in mm	152		152		152		158	158						
run-up in sec	14													
run-down in sec	☐ 14    ☐ 200													
temperature in °C <sup>1)</sup>	0													

<sup>4)</sup> Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

<sup>5)</sup> Please remove the inserts.

<sup>10)</sup> A rubber stopper for closing the tube is available under Cat. No. 0535. The tube may not be centrifuged with the stopper. The stopper only serves to close the tube for agitating or mixing.

# ROTORS AND ACCESSORIES


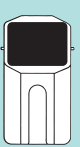

































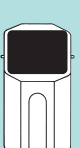



























illustrated with carriers 1427



illustrated with carriers 1427 and lids 1421

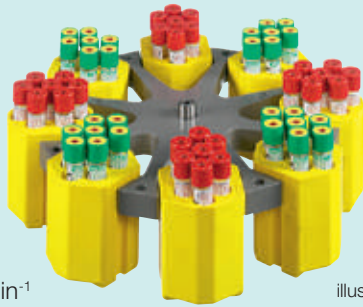
## Swing-out rotor Cat. No. (without carriers) 4754

capacity in ml	1.5/2.0	1	3	4	5	6	7	9	15	25	50	15	50	50	
Ø x L in mm	11x38	6x45	10x60	12x60	12x75	12x82	12x100	14x100	17x100	24x100	34x100	17x120	29x115	29x115	
Cat. No.	2078/0536	Rhesus	-	-	0553 <sup>2)</sup>	0501 <sup>2)</sup>	0578 <sup>2)</sup>	0500 <sup>2)</sup>	0518 <sup>2)</sup>	0519 <sup>2)</sup>	0521 <sup>2)</sup>	0509	0513	-	
lid Cat. No. 1421  carrier Cat. No. 1427 															
															
Cat. No.	5277	5273	1357	1327	1326	1732	5229	5230	5237	5231	5232	5233	1733	5276	5233 <sup>5)</sup>
boring Ø x L in mm	11.5x38	13.7x38	6.5x23	10.5x23	12.5x44	13.4x58	12.5x44	12.4x87	15x73	17.8x87	25.5x87	35.5x87	17x90	30x90	35.5x87
tubes per rotor	36	48	120	48	32	48	48	24	24	8	4	12	4	4	4
max. RCF <sup>2)</sup>	3,761	3,714	3,738	3,714	3,690	3,714	3,714	3,620	3,620	3,620	3,620	3,620	3,809	3,714	3,714
radius in mm	159	157	158	157	156	157	157	153	153	153	153	153	161	157	157
run-up in sec	14														
run-down in sec	☐ 14    ☉ 200														
temperature in °C <sup>1)</sup>	0														

capacity in ml	1.1-1.4	2.6-2.9	2.7-3	4-5.5	4.5-5	4.9	7.5-8.2	9-10	1.6-5	4-7	4-7	8.5-10	suspension for cyto accessories																																																																																																																																																																																																																																																	
Ø x L in mm	8x66	13x65	11x66	15x75	11x92	13x90	15x92	16x92	13x75	13x100	16x75	16x100																																																																																																																																																																																																																																																		
Cat. No.	blood collection/urine tubes												cyto chambers <sup>9)</sup>																																																																																																																																																																																																																																																	
lid Cat. No. 1421  carrier Cat. No. 1427 																																																																																																																																																																																																																																																														

# ROTORS AND ACCESSORIES

## Swing-out rotor, 8-place


















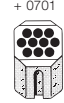
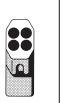

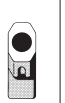
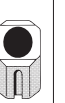

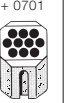
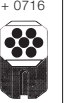
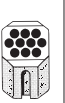












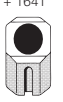

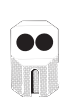


↻90°





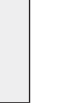


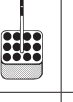
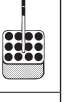
n = 3,800 min<sup>-1</sup>  
max. RCF 2,906

illustrated with carriers 1742

**Cat. No.** (without carriers) **4758**

capacity in ml	5	6	7	9	15	20	45	50	1.1–1.4	4–5.5	4.9	1.6–5/4–7	8.5–10	
Ø x L in mm	12 x 75	12 x 82	12 x 100	14 x 100	17 x 100	21 x 100	31 x 100	34 x 100	8 x 66	15 x 75	13 x 90	13 x 75/16 x 75	16 x 100	
<b>Cat. No.</b>	<b>0553<sup>2)</sup></b>	<b>0501<sup>2)</sup></b>	<b>0578<sup>2)</sup></b>	<b>0500<sup>2)</sup></b>	<b>0518<sup>2)</sup></b>	-	-	<b>0521<sup>2)</sup></b>	<b>blood collection/urine tubes</b>					
 <b>rotor</b> Cat. No. <b>4758</b>														
														
<b>Cat. No.</b>	<b>1369-91</b>	<b>1372</b>	<b>1369-92</b>	<b>1741</b>	<b>1369</b>	<b>1346</b>	<b>1345</b>	<b>1746</b>	<b>1308</b>	<b>1741<sup>11)</sup></b>	<b>1742<sup>11)</sup></b>	<b>1741<sup>11)</sup></b>	<b>1742<sup>11)</sup></b>	<b>1369</b>
boring Ø x L in mm	11.5 x 64.4	13.5 x 65	11.5 x 71.5	14.6 x 78	17.6 x 74	21.5 x 74	32 x 74	35 x 78	35.7 x 88.2	14.6 x 78	17.6 x 78	14.6 x 78	17.6 x 78	17.6 x 74
tubes per rotor	32	136	32	80	32	16	8		80	56	80	56	32	
max. RCF <sup>2)</sup>	2,551	2,648	2,777	2,874	2,825	2,825	2,825	2,906	2,761	2,874	2,793	2,906	2,793	2,825
radius in mm	158	164	172	178	175	175	175	180	171	178	173	180	173	175
run-up in sec	19													
run-down in sec	⏸ 16 ⏸ 270													
temperature in °C <sup>1)</sup>	0													

capacity in ml	15	50	50	30	suspensions for cyto accessories		
Ø x L in mm	17 x 120	29 x 115	29 x 115	26 x 95			
<b>Cat. No.</b>	<b>0509</b>	<b>0513</b>	-	<b>0545</b>	<b>cyto chambers<sup>9)</sup></b>		
 <b>rotor</b> Cat. No. <b>4758</b>							
							
<b>Cat. No.</b>	<b>1742<sup>11, 12)</sup></b>	<b>1746</b>	<b>1746</b>	<b>1308</b>	<b>1745</b>	<b>1660</b>	<b>1680</b>
boring Ø x L in mm	17.6 x 78	30 x 98	30 x 98	35.7 x 88.2	26 x 78	-	
tubes per rotor	24	8	8	8	16	8	
max. RCF <sup>2)</sup>	2,906		2,761	2,906	2,179		
radius in mm	180		171	180	135		
run-up in sec	19						
run-down in sec	⏸ 16 ⏸ 270						
temperature in °C <sup>1)</sup>	0						

capacity in ml	1.5/2.0	1	3	4
Ø x L in mm	11 x 38	6 x 45	10 x 60	12 x 60
<b>Cat. No.</b>	<b>2078/0536</b>	<b>Rhesus</b>	-	-
 <b>carrier</b> Cat. No. <b>1366</b>				
				
<b>Cat. No.</b>	<b>5277</b>	<b>1357</b>	<b>1327</b>	<b>1326</b>
boring Ø x L in mm	11.5 x 38	6.5 x 23	10.5 x 23	12.5 x 44
tubes per rotor	72	240	96	
max. RCF <sup>2)</sup>	2,470	2,454	2,438	
radius in mm	153	152	151	
run-up in sec	19			
run-down in sec	⏸ 16 ⏸ 270			
temperature in °C <sup>1)</sup>	0			

<sup>5)</sup> Please remove the inserts.

<sup>9)</sup> Please ask for our detailed cyto brochure.

<sup>11)</sup> For an overview of further tubes accommodated by adapters 1741 and 1742, please refer to our centrifuges product catalogue.

<sup>12)</sup> Carrier must be loaded as illustrated.

# ROTORS AND ACCESSORIES

## Angle rotor, 30-place



∠ 45°

n = 15,000 min<sup>-1</sup>  
max. RCF 24,400

with bio-containment<sup>4)</sup>

**Cat. No. 4790-A**

## Angle rotor, 6-place, for PCR strips



∠ 45°

n = 14,000 min<sup>-1</sup>  
max. RCF 18,845

lid (optional)  
Cat. No. **1162**

**Cat. No. (without lid) 4760**

## Angle rotor, 4-place



∠ 25°

n = 9,500 min<sup>-1</sup>  
max. RCF 12,007

**Cat. No. 4795**

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
∅ x L in mm	6x18	6x45	8x30	8x45	11x38	
<b>Cat. No.</b>	-			<b>2078</b>	<b>0536</b>	
lid with bio-containment <sup>4)</sup> incl.						
<b>rotor</b> Cat. No. <b>4790-A</b>						
<b>Cat. No.</b>	<b>2024</b>	<b>2023</b>	<b>2031</b> <sup>13)</sup>	-		
boring ∅ x L in mm	6x40		8x40	10.2x19	11.2x40.9	
tubes per rotor	30					
max. RCF <sup>2)</sup>	24,400					
radius in mm	97					
run-up in sec	19					
run-down in sec	24  520					
temperature in °C <sup>1)</sup>	+4					

capacity in ml	0.2	0.2
∅ x L in mm	6 x 18	-
<b>Cat. No.</b>	-	<b>PCR strips</b>
<b>rotor</b> Cat. No. <b>4760</b>		
<b>Cat. No.</b>	-	
boring ∅ x L in mm	6.5 x 15.5	
tubes per rotor	48	6 x 8
max. RCF <sup>2)</sup>	18,845	
radius in mm	86	
run-up in sec	15	
run-down in sec	15  285	
temperature in °C <sup>1)</sup>	+1	

capacity in ml	15	25	85	10	30	50	85	94	250	
∅ x L in mm	17x100	24x100	38 x 106	16x80	26x95	29x107	38x106	38x102	61x122	
<b>Cat. No.</b>	<b>0518</b> <sup>2)</sup>	<b>0519</b> <sup>2)</sup>	<b>0549</b>	-	<b>0545</b>	<b>0546</b>	<b>0547</b>	<b>0538</b> <sup>6)</sup>	<b>5127</b> <sup>7)</sup>	
<b>rotor</b> Cat. No. <b>4795</b>										
<b>Cat. No.</b>	<b>5646</b>	<b>5642</b>	<b>5644</b>	<b>5641</b>	<b>5642</b>	<b>5643</b>	<b>5644</b>		-	
boring ∅ x L in mm	17.6x83	26 x 80	38.6x88	16.6x70	26x80	29x90	38.6x88		61.5x109	
tubes per rotor	28	12	4	32	12	4	4		4	
max. RCF <sup>2)</sup>	11,301	10,897	10,292	11,402	10,897	10,090	10,292		12,007	
radius in mm	112	108	102	113	108	100	102		119	
run-up in sec	45									
run-down in sec	55  740									
temperature in °C <sup>1)</sup>	+2									

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

<sup>2)</sup> 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 <sup>2)</sup> is 4,000.

<sup>4)</sup> Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

# ROTORS AND ACCESSORIES

## Angle rotor, 6-place



∠ 45°

n = 11,000 min<sup>-1</sup>  
max. RCF 16,504

with bio-containment<sup>4)</sup>

**Cat. No. 4794**

capacity in ml	1.5	2.0	3	15	25	50	75	85	7.5–8.2	9–10	10	8.5–10
∅ x L in mm	11 x 38		10 x 60	17 x 100	24 x 100	34 x 100	35 x 105	38 x 106	15 x 92	16 x 92	15 x 102	16 x 100
<b>Cat. No.</b>	<b>2078</b>	<b>0536</b>	-	<b>0518<sup>2)</sup></b>	<b>0519<sup>2)</sup></b>	<b>0521<sup>2)</sup></b>	<b>0548</b>	<b>0549</b>	<b>blood collection/urine tubes</b>			
lid with bio-containment <sup>4)</sup> incl.												
<b>rotor</b> Cat. No. <b>4794</b>												
<b>Cat. No.</b>	<b>1449</b>		<b>1451</b>	<b>1447</b>	<b>1463</b>	-	<b>1451</b>					
boring ∅ x L in mm	11.4 x 39		17.5 x 92	26 x 85	35 x 89	38.2 x 89.6	17.5 x 92					
tubes per rotor	24		6			6	6					
max. RCF <sup>2)</sup>	15,828		15,557	15,151	16,233	16,504	15,557					
radius in mm	117		115	112	120	122	115					
run-up in sec	40											
run-down in sec	63 665											
temperature in °C <sup>1)</sup>	+4											



capacity in ml	15	50	10	30	50	85	94	
∅ x L in mm	17 x 120	29 x 115	16 x 80	26 x 95	29 x 107	38 x 106	38 x 102	
<b>Cat. No.</b>	<b>0509</b>	<b>0513</b>	-	<b>0545</b>	<b>0546</b>	<b>0547</b>	<b>0538<sup>6)</sup></b>	
lid with bio-containment <sup>4)</sup> incl.								
<b>rotor</b> Cat. No. <b>4794</b>								
<b>Cat. No.</b>	<b>1466</b>	<b>1454</b>	<b>1448</b>	<b>1447</b>	<b>1446</b>	-		
boring ∅ x L in mm	17 x 106	29.8 x 97	16.5 x 74	26 x 85	29 x 92	38.2 x 89.6		
tubes per rotor	6	6	12	6				
max. RCF <sup>2)</sup>	15,828	16,098	15,557	15,151	15,828	16,504		
radius in mm	117	119	115	112	117	122		
run-up in sec	40							
run-down in sec	63 665							
temperature in °C <sup>1)</sup>	+4							

<sup>6)</sup> The screw cap for tube No. 0538 is available with Cat. No. 0539. Dimensions with cap 38 x 106 mm.

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

<sup>13)</sup> For centrifugation at high speeds, we recommend to use form-fitting, phenol-resistant adapters 2031.

# ROTINA 420/420 R

TECHNOLOGY	ROTINA 420		ROTINA 420 R	
<b>Benchtop centrifuge, without rotor</b>	<b>classic</b>		<b>cooled</b>	
Power supply <sup>*)</sup>	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	750 VA	800 VA	1,500 VA	1,750 VA
Emission	EN 55011 group 1, class B, EN 61000-3-2, EN 61000-3-3	FCC class B	EN 55011 group 1, class B, EN 61000-3-2, EN 61000-3-3	FCC class B
Immunity	EN 61000-6-2	–	EN 61000-6-2	–
 Max. capacity	4 x 600 ml			
 Max. RPM (speed)	15,000 min <sup>-1</sup>			
Max. RCF	24,400			
Running time	1 sec – 99 h : 59 min : 59 sec, ∞ continuous run, short cycle mode			
Dimensions (HxWxD)	423 x 506 x 650 mm		423 x 713 x 654 mm	
Weight	approx. 75 kg	approx. 84 kg	approx. 108 kg	approx. 117 kg
<b>Refrigeration</b>				
Temperature control, infinitely variable	-		from -20 to +40 °C	
<b>Cat. No.</b>	<b>4701</b>	<b>4701-01</b>	<b>4706</b>	<b>4706-01</b>

<sup>\*)</sup> Other voltages 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 9001:2000 and ISO 13485:2003 certificates accredited to the company bear witness to the extreme care and responsibility Hettich puts into the manufacturing of centrifuges and their accessories.

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