



### Angle rotor, 12-place

### Angle rotor, 24-place

### Angle rotor, 30-place



±45°

n = 18,000 min<sup>-1</sup>  
max. RCF 25,718

**Cat. No. 2218-A**



±45°

n = 18,000 min<sup>-1</sup>  
max. RCF 31,514

**Cat. No. 1195-A**

with bio-containment<sup>3)</sup>



±45°

n = 14,000 min<sup>-1</sup>  
max. RCF 21,255

**Cat. No. 1189-A**

with bio-containment<sup>3)</sup>

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm	6x18	6x45	8x30	8x45	11x38	
<b>Cat. No.</b>	-			<b>2078</b>	<b>0536</b>	
lid incl.						
<b>rotor</b> Cat. No. <b>2218-A</b>						
<b>Cat. No.</b>	<b>2024</b>	<b>2023</b>	<b>2031<sup>4)</sup></b>	-		
boring Ø x L in mm	6x40	8x40	10.2x19	11.2x41		
tubes per rotor	12					
max. RCF	25,718					
radius in mm	71					
run-up in sec	11					
run-down in sec, braked	10					
temperature in °C <sup>1)</sup>	-5					

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm	6x18	6x45	8x30	8x45	11x38	
<b>Cat. No.</b>	-			<b>2078</b>	<b>0536</b>	
lid with bio-containment <sup>3)</sup> incl.						
<b>rotor</b> Cat. No. <b>1195-A</b>						
<b>Cat. No.</b>	<b>2024</b>	<b>2023</b>	<b>2031<sup>4)</sup></b>	-		
boring Ø x L in mm	6x40	8x40	10.2x19	11.2x40.8		
tubes per rotor	24					
max. RCF	31,514					
radius in mm	87					
run-up in sec	26					
run-down in sec, braked	23					
temperature in °C <sup>1)</sup>	+3					

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm	6x18	6x45	8x30	8x45	11x38	
<b>Cat. No.</b>	-			<b>2078</b>	<b>0536</b>	
lid with bio-containment <sup>3)</sup> incl.						
<b>rotor</b> Cat. No. <b>1189-A</b>						
<b>Cat. No.</b>	<b>2024</b>	<b>2023</b>	<b>2031<sup>4)</sup></b>	-		
boring Ø x L in mm	6x40	8x40	10.2x19	11.2x40.9		
tubes per rotor	30					
max. RCF	21,255					
radius in mm	97					
run-up in sec	20					
run-down in sec, braked	22					
temperature in °C <sup>1)</sup>	+3					

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

<sup>3)</sup> Tested by the TÜV in conformity with DIN EN 61010, section 2-020.












<sup>4)</sup> For centrifugation at high speeds, we recommend to use form-fitting, phenol-resistant adapters 2031. The capacity of rotor 1158-L is reduced to 40 tubes when these adapters will be used.


















	Angle rotor, 6-place	Angle rotor, 12-place
<p>The following rotors can only be operated in the refrigerated MIKRO 220 R.</p>		
	±35°	±35°
	n = 6,000 min <sup>-1</sup> max. RCF 4,025	n = 6,000 min <sup>-1</sup> max. RCF 4,146
	<b>Cat. No. 1016</b>	<b>Cat. No. 1015</b>

By also accepting rotors for tubes up to 50 ml, the refrigerated MIKRO 220 R enables an extended range of applications.

With the robust angle rotors even large volumes can be centrifuged at high speeds.

capacity in ml	7	15	25	50	9–10	10	15	50	30	50
∅ x L in mm	12 x 100	17 x 100	24 x 100	34 x 100	16 x 92	15 x 102	17 x 120	29 x 115	26 x 95	29 x 107
<b>Cat. No.</b>	<b>0578<sup>2)</sup></b>	<b>0518<sup>2)</sup></b>	<b>0519<sup>2)</sup></b>	<b>0521<sup>2)</sup></b>	blood collection/urine tubes		<b>0509</b>	<b>0513</b>	<b>0545</b>	<b>0546</b>
 <b>rotor</b> Cat. No. 1016										
<b>Cat. No.</b>	<b>1632</b>	<b>1635</b>	<b>1633</b>	-	<b>1635</b>	<b>1631</b>	<b>1641</b>	<b>1633</b>	<b>1634</b>	
boring ∅ x L in mm	13 x 92	17.5 x 95	26 x 88	35 x 96	17.5 x 95		17 x 98	30 x 98	26 x 88	29 x 95
tubes per rotor	18	6			6		6	3	6	
max. RCF <sup>2)</sup>	3,944	3,783	3,703	4,025	3,783		3,824	3,824	3,703	3,904
radius in mm	98	94	92	100	94		95	95	92	97
run-up in sec	14									
run-down in sec, braked	17									
temperature in °C <sup>1)</sup>	-20									

capacity in ml	5	15	1.1–1.4	2.6–3.4	2.7–3	4.5–5	4.9	7.5–8.5	9–10	10	1.6–5	4–7	8.5–10	15
∅ x L in mm	12 x 75	17 x 100	8 x 66	13 x 65	11 x 66	11 x 92	13 x 90	15 x 92	16 x 92	15 x 102	13 x 75	13 x 100	16 x 100	17 x 120
<b>Cat. No.</b>	<b>0553<sup>2)</sup></b>	<b>0518<sup>2)</sup></b>	blood collection/urine tubes										<b>0509</b>	
 <b>rotor</b> Cat. No. 1015														
<b>Cat. No.</b>	<b>1054-A</b>	-	<b>1054-A</b>			-				<b>1054-A</b>	<b>1058</b>	-	-	
boring ∅ x L in mm	13.5 x 60	17.7 x 88	13.5 x 60			17.7 x 88				13.5 x 60	13.5 x 79	17.7 x 88	17.7 x 88	
tubes per rotor	12	12	12			12				12	12	12	6	
max. RCF <sup>2)</sup>	3,300	4,146	3,300			4,146				3,300	4,146			
radius in mm	82	103	82			103				82	103			
run-up in sec	14													
run-down in sec, braked	16													
temperature in °C <sup>1)</sup>	-20													

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



	Swing-out rotor, 12-place	Swing-out rotor, 8-place
<p>The following rotors can only be operated in the refrigerated MIKRO 220 R.</p>	<p>±60°</p> <p>n = 5,000 min<sup>-1</sup> max. RCF 2,963</p> <p><b>Cat. No.</b> (without carriers) <b>2226</b></p>	<p>±90°</p> <p>n = 5,000 min<sup>-1</sup> max. RCF 2,879</p> <p><b>Cat. No.</b> (without carriers) <b>1020</b></p>

capacity in ml	5	2.6–3.4	2.7–3	1.6–5
Ø x L in mm	12x75	13x65	11x66	13x75
Cat. No.	<b>0553<sup>2)</sup></b> <b>blood collection tubes</b>			
<p><b>rotor</b> Cat. No. <b>2226</b></p>				
Cat. No.	<b>1127</b>			
boring Ø x L in mm	13.2x53			
tubes per rotor	12			
max. RCF <sup>2)</sup>	2,963			
radius in mm	106			
run-up in sec	10			
run-down in sec, braked	10			
temperature in °C <sup>1)</sup>	-20			

capacity in ml	5	6	10	2.6–3.4	2.7–3	4–5.5	1.6–5	4–7
Ø x L in mm	12x75	12x82	17x70	13x65	11x66	15x75	13x75	16x75
Cat. No.	<b>0553<sup>2)</sup></b>		<b>0501<sup>2)</sup></b>	<b>2079</b>	<b>blood collection tubes</b>			
<p><b>rotor</b> Cat. No. <b>1020</b></p>								
Cat. No.	<b>1131</b>	<b>1132</b>	<b>1131</b>	<b>1132</b>	<b>1131</b>	<b>1132</b>		
boring Ø x L in mm	13x53	17.5x53	13x53	17.5x53	13x53	17.5x53		
tubes per rotor	8							
max. RCF <sup>2)</sup>	2,879							
radius in mm	103							
run-up in sec	10							
run-down in sec, braked	10							
temperature in °C <sup>1)</sup>	-20							

<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.



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



∠ 45°

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

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

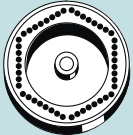


**Cat. No.** (without lid) **1160**


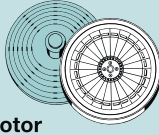
### Hematocrit rotor, 24-place



n = 15,000 min<sup>-1</sup>  
max. RCF 21,382

**Cat. No.** **1023**

capacity in ml	0.2	0.2
Ø x L in mm	6 x 18	-
<b>Cat. No.</b>	-	<b>PCR strips</b>
 <b>rotor</b> Cat. No. <b>1160</b>		
<b>Cat. No.</b>	-	
boring Ø x L in mm	6.5 x 15.5	
tubes per rotor	48	6 x 8
max. RCF	18,845	
radius in mm	86	
run-up in sec	20	
run-down in sec, braked	22	
temperature in °C <sup>1)</sup>	- 4	

standard capillaries, heparinised	basic	self-sealing and mylar-coated
<b>Cat. No.</b>	<b>2074</b>	<b>1071</b>
lid as evaluation disk incl.		
 <b>rotor</b> Cat. No. <b>1023</b>	sealing putty	
<b>Cat. No.</b>	<b>2077</b>	-
boring Ø x L in mm	-	
capillaries per rotor	24	
max. RCF	21,382	
radius in mm	85	
run-up in sec	11	
run-down in sec, braked	12	
temperature in °C <sup>1)</sup>	- 11	

Whether hematocrit determination or the preparation of samples for bilirubin analysis, the MIKRO 220/220 R centrifuges perform strongly.

As a special feature, the hematocrit rotor is segmented into 24 chambers, each chamber containing one capillary only. In case a capillary breaks or leaks, fragments and leaked blood stay in the chamber and will not affect other capillaries. The lid of the rotor is evaluation disk and cover in one. Its advantage: The hematocrit value can be determined fast and conveniently right after centrifugation.



### Swing-out rotor, 24-place



±90°

n = 13,000 min<sup>-1</sup>  
max. RCF 18,516

**Cat. No. 1154-L**

### Drum rotor, 6-place

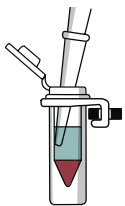


n = 13,000 min<sup>-1</sup>  
max. RCF 14,171

**Cat. No. 1161**

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm	6x18	6x45	8x30	8x45	11 x38	
<b>Cat. No.</b>	-			<b>2078</b>	<b>0536</b>	
rotor Cat. No. <b>1154-L</b>	lid incl.					
<b>Cat. No.</b>	<b>2024</b>	<b>2023</b>	<b>2031<sup>4)</sup></b>	-		
boring Ø x L in mm	6x40	8x40	10.2x19	11.5 x 38.5		
tubes per rotor	24					
max. RCF	18,516					
radius in mm	98					
run-up in sec	25					
run-down in sec, braked	26					
temperature in °C <sup>1)</sup>	+1					

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm	6x18	6x45	8x30	8x45	11 x38	
<b>Cat. No.</b>	-			<b>2078</b>	<b>0536</b>	
rotor Cat. No. <b>1161</b>	lid incl.					
<b>Cat. No.</b>	<b>1378</b>	<b>1379</b>	<b>1377</b>			
boring Ø x L in mm	6x40	8.4x43	10.8x37			
tubes per rotor	192	126	60			
max. RCF	14,171					
radius in mm	75					
run-up in sec	17					
run-down in sec, braked	18					
temperature in °C <sup>1)</sup>	-3					



Centrifugation in the swing-out rotor makes the pellet collect exactly in the tip of the tubes. This facilitates analysis and further processing.

<sup>1)</sup> Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be attained by reducing the speed. For centrifugation at high speeds, we recommend to use form-fitting, phenol-resistant adaptors 2031. The capacity of rotor 1158-L is reduced to 40 tubes when these adaptors will be used.

# MIKRO 220 R



## Rotor & adaptorsheet

### Angle rotor, 20-place, for cryo tubes

### Angle rotor, 48-place, 2-row



∠ 40°

n = 14,000 min<sup>-1</sup>  
max. RCF 18,407


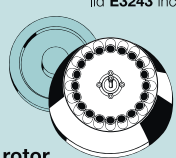
**Cat. No. 2219-A**











∠ 45°

n = 14,000 min<sup>-1</sup> with bio-containment<sup>3)</sup>  
max. RCF outer 21,255 / inner 18,845

**Cat. No. 1158-L**

capacity in ml	1.8
∅ x L in mm	-
<b>Cat. No.</b>	<b>cryo tubes</b>
lid E3243 incl.	
<b>rotor</b> Cat. No. 2219-A	
<b>Cat. No.</b>	-
boring ∅ x L in mm	12.5 x 36
tubes per rotor	20
max. RCF	18,407
radius in mm	84
run-up in sec	21
run-down in sec, braked	21
temperature in °C <sup>1)</sup>	-9

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
∅ x L in mm	6x18	6x45	8x30	8x45	11 x 38	
<b>Cat. No.</b>	-				<b>2078</b>	<b>0536</b>
lid with bio-containment <sup>3)</sup> incl.						
<b>rotor</b> Cat. No. 1158-L						
<b>Cat. No.</b>	<b>2024</b>	<b>2023</b>	<b>2031<sup>4)</sup></b>	-		
boring ∅ x L in mm	6x40	8x40	10.2x19	11.4x39		
tubes per rotor	48					
max. RCF outer/inner	21,255 / 18,845					
radius in mm outer/inner	97 / 86					
run-up in sec	21					
run-down in sec, braked	22					
temperature in °C <sup>1)</sup>	-4					

### Optional for rotor 2219-A



lid **Cat. No. 2425**  
with bio-containment<sup>3)</sup>,  
autoclavable



lid **Cat. No. 2423**  
with bio-containment<sup>3)</sup>,  
autoclavable,  
phenol-resistant