

MIKRO 220 | 220 R

Fast and flexible

The MIKRO 220 spins at an unmatched speed of 18,000 RPM and delivers an RCF of 31,514 in just 26 seconds. Ultimate flexibility is provided by a choice of 8 different rotors from 0.2 ml microliter tubes to 50 ml conical tubes, allowing for numerous research applications on a single machine. This unit is available with refrigeration and a temperature range from -20 °C to +40 °C (MIKRO 220 R).

— FEATURES

- RPM: 500 - 18,000 min⁻¹ – adjustable in increments of 10
- Max. RCF: 31,514
- Max. capacity: 60 x 2.0 ml
- Compact, high-performance microlitre centrifuge
- Choice of 8 rotors
- IVDR-conform according to regulation (EU) 2017/746
- Impulse key for short cycle mode
- Easy operation with keypad and control knob
- Impulse key for short cycle mode
- 9 program memories for more individuality
- 9 individual acceleration and 10 deceleration stages
- Model 220 R coolable from -20 to +40 °C (with pre-cooling function)



Centrifuge packages for the model can be found on page 50



More information about the control panel can be found on page 202

— FIELDS OF APPLICATION

- Hospitals
- Pediatric clinics
- Pharmaceutical laboratories
- Food analyzing laboratories
- University / Academic research
- Forensic laboratories
- Molecular diagnostics



according to regulation (EU) 2017/746

TECHNICAL DATA

	MIKRO 220 non-refrigerated	MIKRO 220 R refrigerated
voltage *)	200 – 240 V 1 ~	200 – 240 V 1 ~
frequency	50 – 60 Hz	50 Hz
consumption	510 VA	850 VA
emission, immunity	EN/IEC 61326-1, class B	EN/IEC 61326-1, class B
max. capacity	48 x 1.5 / 2.0 ml, 6 x 50 ml	48 x 1.5 / 2.0 ml, 6 x 50 ml
max. RPM	18,000 min ⁻¹	18,000 min ⁻¹
max. RCF	31,514	31,514
running time	1 – 99 min: 59 s, ∞ continuous run, short cycle mode (impulse button)	1 – 99 min: 59 s, ∞ continuous run, short cycle mode (impulse button)
dimensions (WxDxH)	330x420x313 mm	335x650x313 mm
weight	approx. 21 kg	approx. 42 kg
noise level	≤ 58 dB (A) with rotor 1189-A	≤ 59 dB (A) with rotor 1016
temperatur control, infinitely variable	-	from -20 to +40 °C
Cat. No.	2200	2205
100 – 127 V 1 ~ / 60 Hz	2200-01	2205-01
consumption	510 VA	950 VA
emission, immunity	FCC class B	FCC class B








*) Other voltages on request.

AVAILABLE ROTORS


SWING-OUT ROTORS

	angle	max. RPM	max. capacity	Cat. No.	page
 Swing-out rotor, 24-place	90°	13,000 min ⁻¹	24 x 2 ml	1154-L	47

ANGLE ROTOR








 Angle rotor, 24-place	45°	18,000 min ⁻¹	24 x 2 ml	1195-A	46
 Angle rotor, 30-place	45°	14,000 min ⁻¹	30 x 2 ml	1189-A	46
 Angle rotor, 48-place	45°	14,000 min ⁻¹	48 x 2 ml	1158-L	47
 Angle rotor, 6-place	45°	6,000 min ⁻¹	6 x 50 ml	1016	48
 Drum rotor, 6-place	90°	13,000 min ⁻¹	60 x 2 ml	1161	48
 Angle rotor, 12-place	35°	6,000 min ⁻¹	12 x 15 ml	1015	49
 Angle rotor, 6-place	45°	14,000 min ⁻¹	6 x PCR strips	1160	49








— ANGLE ROTOR, 24-PLACE | 1195-A

Rotor	
max. RPM max. RCF	18,000 min ⁻¹ 31,514
max. capacity	24 x 2 ml
run-up run-down, braked in sec	26 23
angle	45°
temperature in °C ¹⁾	+3
Cat. No.	1195-A


+ Lid bioseal⁹⁾
Cat. No. **INCLUSIVE**



Vessels							
capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0	0.5
Ø x L in mm	6x18	6x45	8x30	8x45	11x38	11x38	10.7x46
max. RCF ²⁾	31,514	31,514	31,514	31,514	31,514	31,514	30,065
radius in mm	87	87	87	87	87	87	83
Cat. No.	microliter tubes						Pediatric








Adapter							
boring Ø x L in mm	6 x 40	6 x 40	8 x 40	8 x 40	10.2x19.3	11.2x40.8	11.2x39
vessels per rotor	24	24	24	24	24	24	12
Cat. No.	2024	2024	2023	2023	2031⁷⁾	-	0788








— ANGLE ROTOR, 30-PLACE | 1189-A

Rotor	
max. RPM max. RCF	14,000 min ⁻¹ 21,255
max. capacity	30 x 2 ml
run-up run-down, braked in sec	20 22
angle max. noise level	45° 58 dB (A)
temperature in °C ¹⁾	+3
Cat. No.	1189-A

+ Lid bioseal⁹⁾
Cat. No. **INCLUSIVE**




Vessels							
capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0	0.5
Ø x L in mm	6x18	6x45	8x30	8x45	11x38	11x38	10.7x46
max. RCF ²⁾	21,255	21,255	21,255	21,255	21,255	21,255	20,379
radius in mm	97	97	97	97	97	97	93
Cat. No.	microliter tubes						Pediatric

Adapter							
boring Ø x L in mm	6 x 40	6 x 40	8 x 40	8 x 40	10.2x19.3	11.2x40.9	11.2x39
vessels per rotor	30	30	30	30	30	30	15
Cat. No.	2024	2024	2023	2023	2031⁷⁾	-	0788

- 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.
- 5) Tested by the TÜV in conformity with DIN EN 61010, section 2 - 020.
- 7) For centrifugation at high speeds, we recommend to use conical, phenol-resistant adapters. Cat. No. 2031.







— ANGLE ROTOR, 48-PLACE | 1158-L









Rotor	
max. RPM	14,000 min ⁻¹
max. RCF	21,255 outside / 18,845 inside
max. capacity	48 x 2 ml
run-up run-down, braked in sec	21 22
angle max. noise level	45° 59 dB (A)
temperature in °C ¹⁾	-4
Cat. No.	1158-L

+ Lid bioseal ⁵⁾
Cat. No. **INCLUSIVE**




Vessels							
capacity in ml		0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm		6 x 18	6 x 45	8 x 30	8 x 45	11 x 38	11 x 38
max. RCF ²⁾	outside / inside	21,255 / 18,845	21,255 / 18,845	21,255 / 18,845	21,255 / 18,845	21,255 / 18,845	21,255 / 18,845
radius in mm	outside / inside	97 / 86	97 / 86	97 / 86	97 / 86	97 / 86	97 / 86
Cat. No.		microliter tubes					

+ Adapter

Adapter							
boring Ø x L in mm		6 x 40	6 x 40	8 x 40	8 x 40	10.2x19.3	11.4x39
vessels per rotor		48	48	48	48	48	48
Cat. No.		2024	2024	2023	2023	2031⁷⁾	-







— SWING-OUT ROTOR, 24-PLACE | 1154-L









Rotor	
max. RPM max. RCF	13,000 min ⁻¹ 18,516
max. capacity	24 x 2 ml
run-up run-down, braked in sec	25 26
angle max. noise level	90° 60 dB (A)
temperature in °C ¹⁾	-2
Cat. No.	1154-L

+ Lid bioseal ⁵⁾
Cat. No. **INCLUSIVE**



Vessels							
capacity in ml		0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm		6 x 18	6 x 45	8 x 30	8 x 45	11 x 38	11 x 38
max. RCF ²⁾		18,516	18,516	18,516	18,516	18,516	18,516
radius in mm		98	98	98	98	98	98
Cat. No.		microliter tubes					

+ Adapter

Adapter							
boring Ø x L in mm		6 x 40	6 x 40	8 x 40	8 x 40	10.2x19.3	11.5x38.5
vessels per rotor		24	24	24	24	24	24
Cat. No.		2024	2024	2023	2023	2031⁷⁾	-

- 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.
- 5) Tested by the TÜV in conformity with DIN EN 61010, section 2 - 020.
- 7) For centrifugation at high speeds, we recommend to use conical, phenol-resistant adapters. Cat. No. 2031.

— ANGLE ROTOR, 6-PLACE | 1016



Rotor

max. RPM max. RCF	6,000 min ⁻¹ 4,025
max. capacity	6 x 50 ml
run-up run-down, braked in sec	14 17
angle max. noise level	35° 59 dB (A)
temperature in °C ¹⁾	-20
Cat. No.	1016

Vessels

capacity in ml	7	15	25	50	9-10	10	1.6-5	4-7	5	15	50	30	50
Ø x L in mm	12x100	17x100	24x100	34x100	16x92	15x102	13 x 75	13 x 100	17x59	17x120	29x115	26x95	29x107
max. RCF ²⁾	3,944	3,783	3,622	4,025	3,783	3,783	2,978	3,783	3,622	3,824	3,824	3,703	3,904
radius in mm	98	94	90	100	94	94	74	94	90	95	95	92	97
Cat. No.	tubes²⁾				blood collection / urine tubes				-	tubes with screw cap			



Adapter

boring Ø x L in mm	13 x 91.5	17.5 x 95	26 x 88	35 x 96	17.5 x 95	17.5 x 51	17.5 x 95	17.5 x 95	17 x 51	17 x 97.8	30 x 97.8	26 x 88	29 x 95
vessels per rotor	18	6	6	6	6	6	6	6	6	6	3	6	6
Cat. No.	1632	1635	1633	-	1635	1635	1635	1635	1649	1631	1641	1633	1634

— DRUM ROTOR, 6-PLACE | 1161



Rotor

max. RPM max. RCF	13,000 min ⁻¹ 14,171
max. capacity	60 x 2 ml
run-up run-down, braked in sec	17 18
angle max. noise level	90° 60 dB (A)
temperature in °C ¹⁾	-3
Cat. No.	1161

Lid

Cat. No.	INCLUSIVE
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Vessels

capacity in ml	0.2	0.4	0.5	0.8	1.5	2.0
Ø x L in mm	6 x 18	6 x 45	8 x 30	8 x 45	11 x 38	11 x 38
max. RCF ²⁾	14,171	14,171	14,171	14,171	14,171	14,171
radius in mm	75	75	75	75	75	75
Cat. No.	microliter tubes					



Adapter

boring Ø x L in mm	6 x 40	6 x 40	8.4 x 42.5	8.4 x 42.5	10.8 x 37	10.8 x 37
vessels per rotor	192	192	126	126	60	60
Cat. No.	1378	1378	1379	1379	1377	1377

- 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.

— ANGLE ROTOR, 12-PLACE | 1015



Rotor

max. RPM max. RCF	6,000 min ⁻¹ 4,146
max. capacity	12 x 15 ml
run-up run-down, braked in sec	14 16
angle max. noise level	35° 60 dB (A)
temperature in °C ¹⁾	-20
Cat. No.	1015

Vessels

capacity in ml	5	15	1.1-1.4	2.6-3.4	2.7-3	4.5-5	4.9	7.5-8.2	9-10	10	1.6-5	4-7	8.5-10	15
Ø x L in mm	12x75	17x100	8x66	13x65	11x66	11x92	13x90	15x92	16x92	15x102	13x75	13x100	16x100	17x120
max. RCF ²⁾	3,300	4,146	3,300	3,300	3,300	4,146	4,146	4,146	4,146	4,146	3,300	4,146	4,146	4,146
radius in mm	82	103	82	82	82	103	103	103	103	103	82	103	103	103
Cat. No.	tubes²⁾		blood collection / urine tubes											-



Adapter

boring Ø x L in mm	13.5 x 59	17.7 x 88	13.5 x 59	13.5 x 59	13.5 x 59	17.7 x 88	17.7 x 88	17.7 x 88	17.7 x 88	17.7 x 88	13.5 x 59	13.5 x 79	17.7 x 88	17.7 x 88
vessels per rotor	12	12	12	12	12	12	12	12	12	12	12	12	12	6
Cat. No.	1054-A	-	1054-A	1054-A	1054-A	-	-	-	-	-	1054-A	1058	-	-

— ANGLE ROTOR, 6-PLACE | 1160



Rotor

max. RPM max. RCF	14,000 min ⁻¹ 18,845
max. capacity	6 x 8 PCR strips
run up run down, braked in sec	20 22
angle temperature in °C ¹⁾	45° -4
Cat. No.	1160

Lid

Cat. No.	1162
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Vessels

capacity in ml	0.2	0.2
Ø x L in mm	6x18	-
max. RCF ²⁾	18,845	18,845
radius in mm	86	86
Cat. No.	-	PCR strips



Adapter

boring Ø x L in mm	6.5 x 15.5	6.5 x 15.5
vessels per rotor	48	6 x 8
Cat. No.	-	-

- 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.

PACKAGES

MIKRO 220 MICROLITER TUBES PACKAGE 1

		number of vessels	volume (ml)	size (mm)	RPM	RCF
- 1 x MIKRO 220	2200	24	0.2 - 2.0	11 x 38	18,000	31,514
- 1 x angle rotor 24-place, incl. lid bioseal	1195-A	12	0.5 (Pediatric)	10.7 x 46	18,000	30,065

2200SET1

MIKRO 220 MICROLITER TUBES PACKAGE 2

		number of vessels	volume (ml)	size (mm)	RPM	RCF
- 1 x MIKRO 220	2200	30	0.2 - 2.0	11 x 38	14,000	21,255
- 1 x angle rotor 30-place, incl. lid bioseal	1189-A	15	0.5 (Pediatric)	10.7 x 46	14,000	20,379

2200SET2

MIKRO 220 R MICROLITER TUBES PACKAGE 1

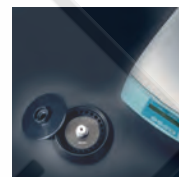
		number of vessels	volume (ml)	size (mm)	RPM	RCF
- 1 x MIKRO 220 R	2205	24	0.2 - 2.0	11 x 38	18,000	31,514
- 1 x angle rotor 24-place, incl. lid bioseal	1195-A	12	0.5 (Pediatric)	10.7 x 46	18,000	30,065

2205SET1

MIKRO 220 R MICROLITER TUBES PACKAGE 2

		number of vessels	volume (ml)	size (mm)	RPM	RCF
- 1 x MIKRO 220 R	2205	30	0.2 - 2.0	11 x 38	14,000	21,255
- 1 x angle rotor 30-place, incl. lid bioseal	1189-A	15	0.5 (Pediatric)	10.7 x 46	14,000	20,379

2205SET2



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Henderson Biomedical

Unit 3, Swan Close
Croydon CR0 2DZ
United Kingdom

Tel: 020 8663 4610

For sales enquiries: sales@henderson-biomedical.co.uk
For all other enquiries: info@henderson-biomedical.co.uk
www.henderson-biomedical.co.uk

